

R. A. FESSENDEN.
STORAGE AND CARE OF WHEELED VEHICLES.
APPLICATION FILED JULY 10, 1911.

1,114,975.

Patented Oct. 27, 1914.

3 SHEETS—SHEET 1.

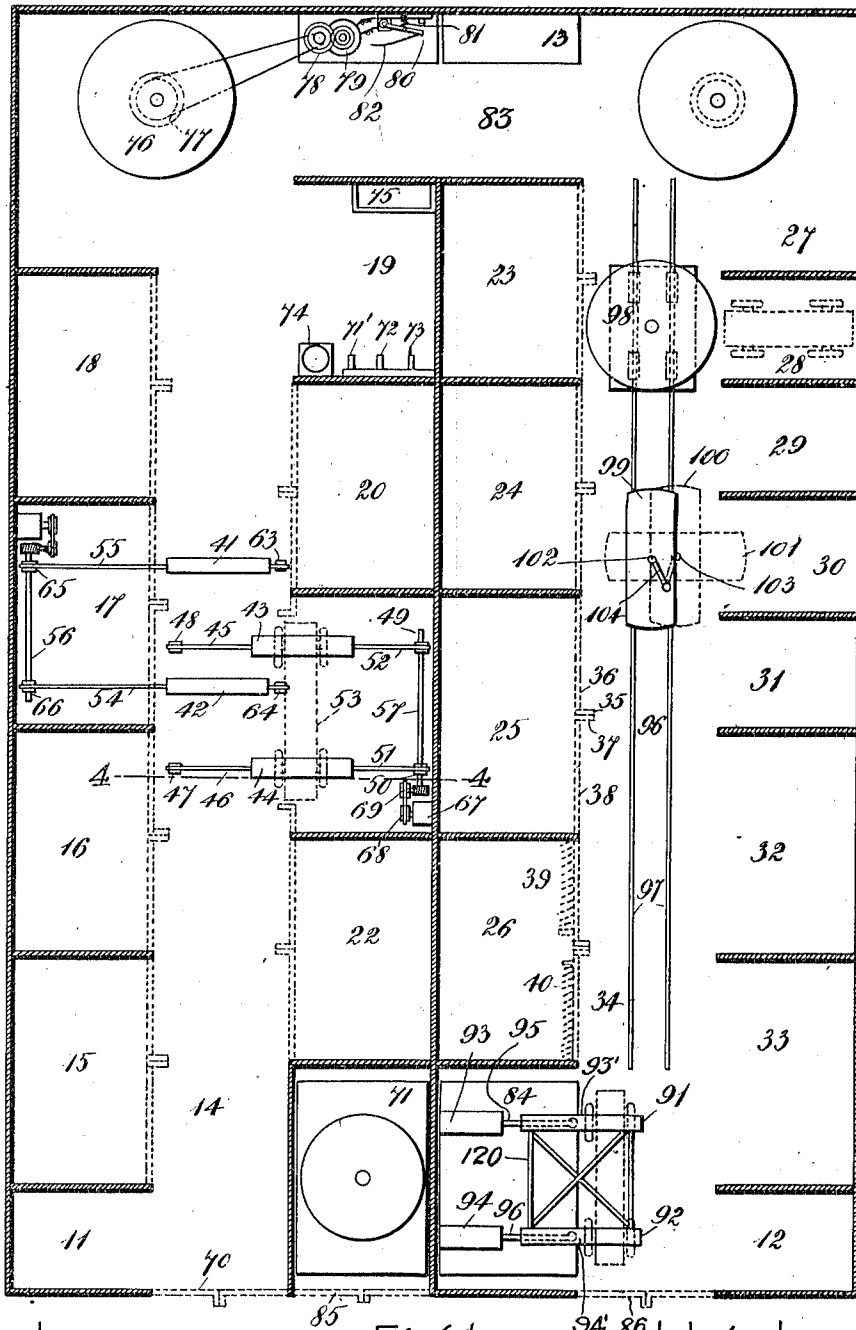


FIG. 1.

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INVENTOR:

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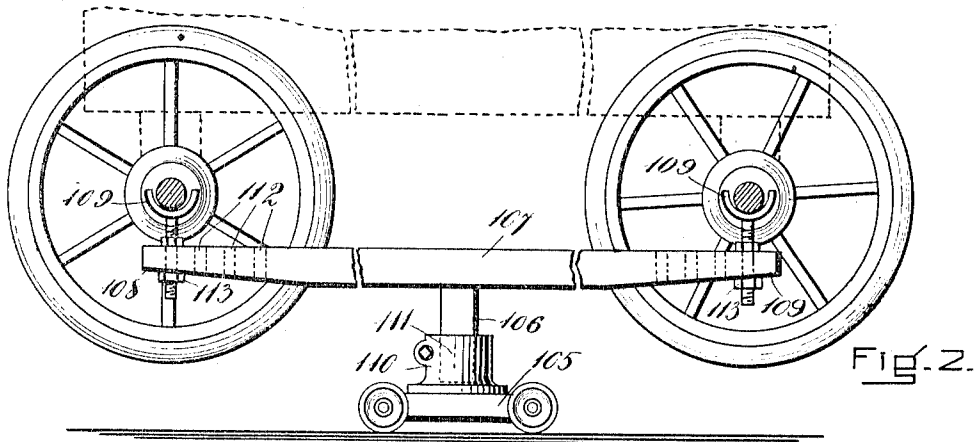


FIG. 2.

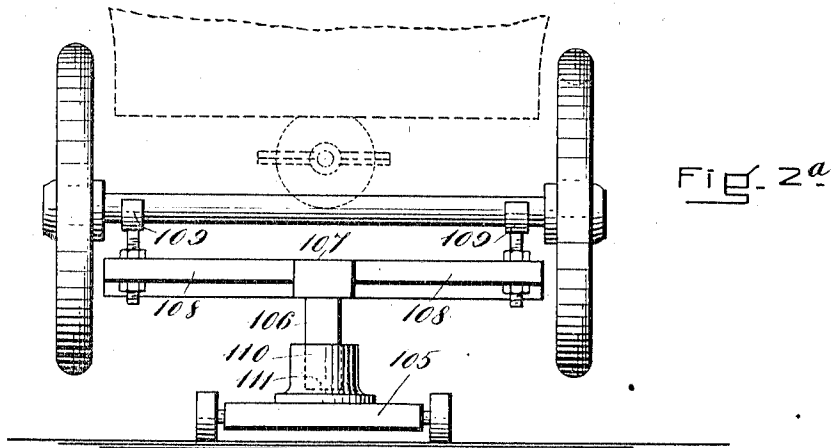


FIG. 2a.

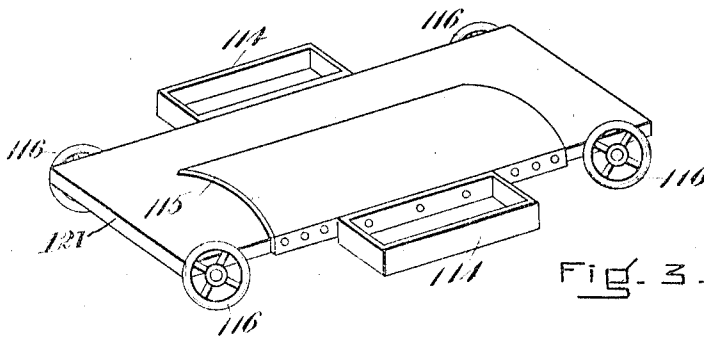


FIG. 3.

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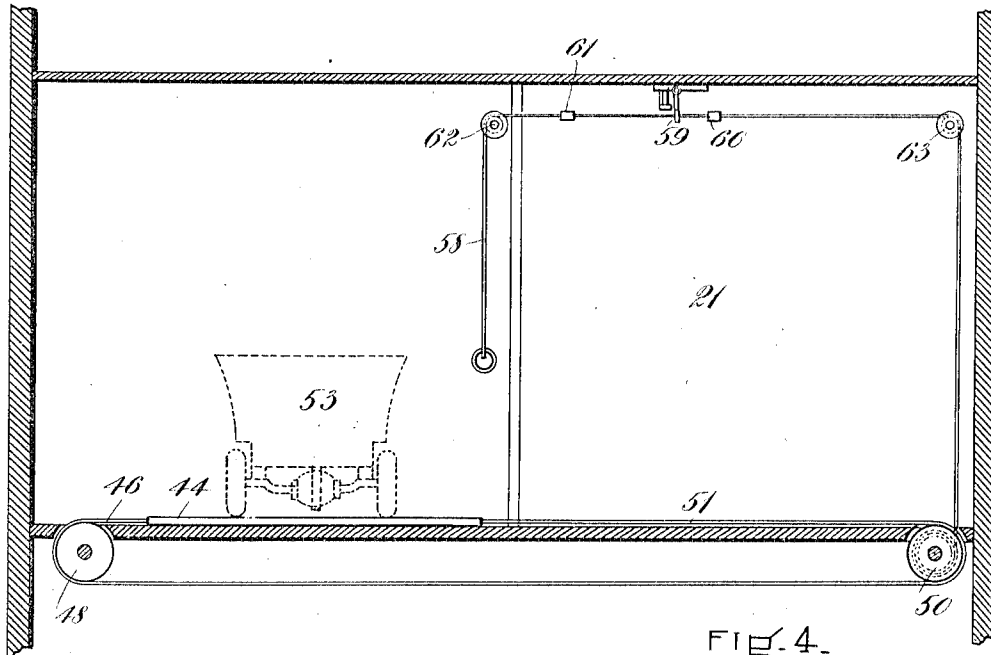


FIG. 4.

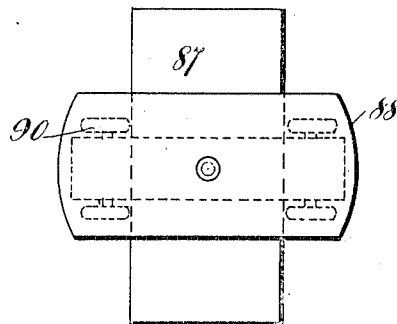


FIG. 5.

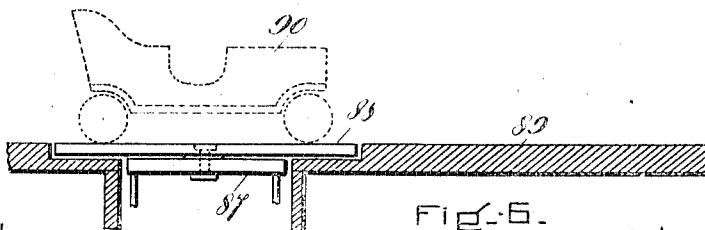


FIG. 6.

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UNITED STATES PATENT OFFICE.

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STORAGE AND CARE OF WHEELED VEHICLES.

1,114,975.

Specification of Letters Patent.

Patented Oct. 27, 1914.

Application filed July 10, 1911. Serial No. 637,672.

To all whom it may concern:

Be it known that I, REGINALD A. FESSENDEN, a citizen of the United States, and a resident of Brookline, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Storage and Care of Wheeled Vehicles, of which the following is a specification.

My invention relates to apparatus for the storage and care of wheeled vehicles.

Figure 1 is a plan of one embodiment of my invention; Fig. 2 is an elevation of a truck; Fig. 2^a is an end view of said truck; Fig. 3 is a perspective view of a sliding truck support. Fig. 4 is a vertical section taken on the line 4-4 of Fig. 1. Fig. 5 is a plan of one type of turntable that may be used in the apparatus shown in Fig. 1. Fig. 6 is an elevation of the turntable shown in Fig. 5.

Heretofore automobiles have been stored by standing them around the walls of large rooms, a method very wasteful in space, productive of great confusion, causing great loss of time, attended with large fire risk, inconvenient as regards the proper care of the car, and attended with great inconvenience and annoyance from loss of tools, deterioration of supplies, and injuries through accidental actions on the part of other tenants of the garage. I overcome the above mentioned defects and obtain other advantages by means of the following apparatus.

In Fig. 1, a plan view of the garage is shown. The left side of the plan represents the ground floor and the right side the 2nd floor.

Nos. 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 32, 33, represent cells or rooms for the storage of automobiles, in a position parallel to the alleys 14, 34. The rooms 27, 28, 29, 30, 31, are for storage of automobiles in a direction perpendicular to the direction of the alleys. These rooms are preferably inclosed on three sides, to the roof, the walls being of fireproof material, as cement and iron lattice work, as also the flooring and roofs. The front side, *i. e.* the side adjacent to the alleys, is preferably made of lattice-work of iron, opening in the center, formed of two parts, as shown at 36, 38, where 35, 37, are the two parts of the lock for fastening the two pieces of lattice work, 36, 38, and 39, 40, are springs for automatically retracting the lattice work when the lock is

unfastened. The lock is so arranged that it can be reached by the driver of the car without leaving his seat. Across the alleys are carriers, 41, 42, 43, 44. These may consist of link belting, or trucks mounted on wheels, and running on rails, but preferably consist of pieces of belting, resting on the smoothly prepared surface of the floor, which may be coated with a lubricant, as graphite, or talc, if desired. To each end of the carrier is attached an endless chain, 55, 54, 45, 46, passing over the free pulleys 63, 64, 48, 47, and over the pulleys 65, 66, 50, 49, attached to and driven by the shafts 56, 57.

The motive power for driving the shafts may be hydraulic or pneumatic, but I prefer the electric drive shown, where 67 is a motor, driving, by the belt 68, the worm gear 69, attached to the shaft 57 and operated by the switch 59, Fig. 4.

The automobile, entering by the door 70, is driven down the alley 14, till it rests on the carriers 43, 44. The driver then unlocks the lattice work doors, shown at 36, 38, and pulls the cord 58 of Fig. 4. The stop 60 on the cord engages the switch 59, closing it, and starting the motor 50 in action, closing both field and armature circuits at the same time, the former slightly in advance of the other, and the shaft 57 draws the carriers and the automobile resting on them into the room. At the same time the cord 58 is wound up on the shaft 57, so that when the car has assumed its proper position the stop 61 on the cord opens the switch, and the carriers are brought to rest. In this way, without the driver leaving his seat, or requiring any assistance, the car is deposited in its place. A similar cord and switch, but with field switch in the opposite direction, so as to reverse the direction of the motor, or a double pole reversing switch for the main connections, is used for moving the car in the reverse direction, *i. e.* from the room to the alley.

In room 19 is shown the arrangement of the water, 71, compressed air pipe, 72, electric connections, 73, and washstand, 74, closet for tools and clothes and supplies, 75.

To reverse the car, it may be driven on the turntable, 76, which is driven by the chain 77 and motor 78, with worm gear 79. This is operated by the switch 80, normally held open by the spring 81, and closed by pulling the cord 82, which hangs above the turntable.

By means of the turntables shown, the traffic can always be in one direction. The car leaving the room 20, is run onto the turntable. The driver, without leaving his seat, pulls the cord 82, the end of which hangs over the turntable. This closes the switch 80 and the car is turned to the desired degree; whereupon the cord is released and the spring 81 opens the switch and the turntable stops, the car is run along the alley 83 to the corresponding turntable on the other side, turned again and run out of the door corresponding to 70, on the right hand side of the building.

The doors 85 and 86 lead to the elevators 71 and 84. The elevator 71 has a turntable, driven as the turntable 76 is, and on the car being raised to the second floor, the turntable is rotated by a sufficient angle to permit the car to enter the proper alley. Where the moving platform is of oblong shape, or for other reasons it is desirable, the turntable is also made oblong, and consisting of two parts, movable on each other, as shown in Figs. 5 and 6, so that when the part 87 is level with the floor 89, the part 88, carrying the car 90, swings out over the floor 89, and so gives the effect of a circular turntable in places where a circular table would be impracticable. The turntable 120 shows an alternative method. Here 93', 94', are carriers, of the general type referred to above, but in this case driven by the pistons 95, 96, of the hydraulic cylinders 93, 94, being thrust out over the floor 89 when the car has been raised to the proper level, and the car being run off up the alley 96. The taking of a car from the second floor to ground being accomplished by reversing the process.

In place of running the cars in on their own wheels, they may be run onto a truck, 98, running on the rails 97. On coming opposite the proper room, they may be delivered sidewise, as by the elevator 84, or preferably the truck is arranged so as to have in combination with a turntable, as shown at 99, where 99 is the truck, and 101 is the turntable, of the oblong type shown in Figs. 5 and 6, preferably, but with the further improvement, that the center of rotation is shiftable, by means of the swinging arm 104, so that while normally it is at 102, and the turntable 101 lies over the truck 100, on reaching the room 31, where the passage would be too narrow to per-

mit of the rotation of the turntable 101 on the axis 102, on account of striking the room 25, the axis, shifting from 102 to 103, now allows sufficient room.

Figs. 2 and 3 shown portable handling apparatus. The beam Fig. 2, 107 carries horizontal arms 108 and 109, which can be attached at any point along the beam by the holes 112, 112. The vertical arms 109, 109, 109, carry crutches as shown, to engage the axles of the car, preferably just inside of the wheels, and are adjustable in any convenient manner, as by the set screws 113, 113. In Fig. 3, 121 is a support or sliding body support. It is mounted on the wheels 116, 116, 116, 116, and has tool trays 114, 114, attached, and a cover 115, which can be drawn over the body to keep out grease and oil. The apparatus slides under the car body, and is especially adapted to be used with the apparatus of Fig. 2. In Fig. 2, 105 is a movable truck, wheeled, and 111, 106, 110, designate a hydraulic piston and cylinder, for raising the beam 107 said beam being rotatable about the axis 106.

What I claim is,

1. An apparatus for storing wheeled vehicles comprising a plurality of vehicle-receiving cells opening upon an alley-way and a vehicle-conveyer for each cell, each conveyer being arranged at right angles to the direction of said alley-way.

2. An apparatus for storing wheeled vehicles comprising a plurality of vehicle-receiving cells opening upon an alley-way and a vehicle-conveyer for each cell, each conveyer being arranged at right angles to the direction of said alley-way and comprising a carrier, an endless chain for operating said carrier, operating means for said endless chain and means operable from the vehicle seat for controlling said operating means.

3. An apparatus for storing wheeled vehicles comprising a plurality of vehicle-receiving cells opening upon an alley-way, a vehicle-conveyer for each cell, and means operable from the vehicle seat for controlling said vehicle-conveyer.

In testimony whereof, I have hereunto subscribed my name this 6th day of July, 1911.

REGINALD A. FESSENDEN.

Witnesses:

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E. B. TOMLINSON.