Aug. 31, 1926. 1,598,507

W. H. ROBBINS

BUILDING CONSTRUCTION

Filed Feb. 18, 1926

Fig. 1.

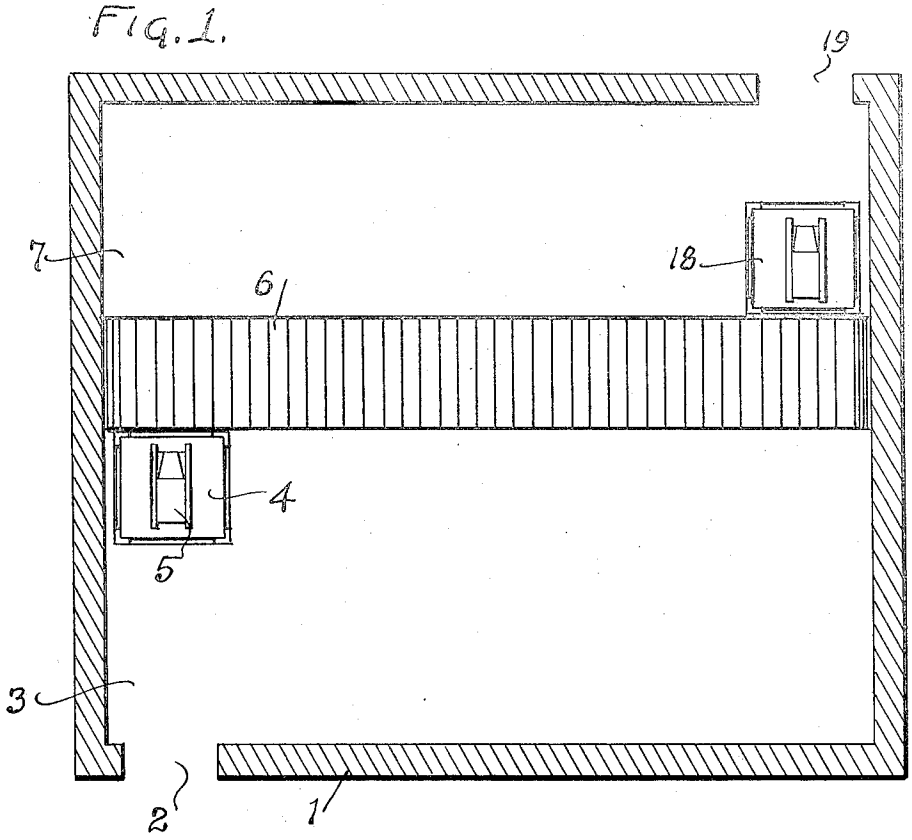


Fig. 2.

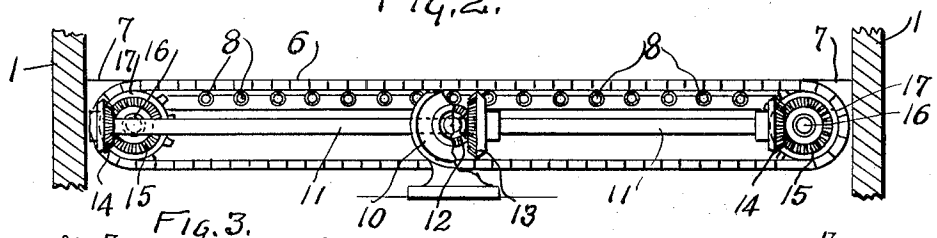
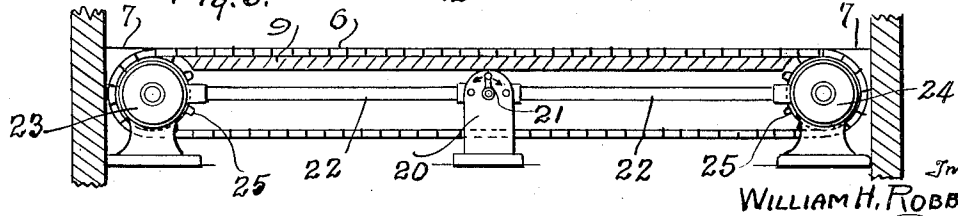


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM H. ROBBINS, OF SPRINGFIELD, OHIO.

BUILDING CONSTRUCTION.

Application filed February 18, 1926. Serial No. 89,245.

My invention relates to buildings and in particular to an apparatus for use in buildings for storing vehicles and the like.

It is my object to provide a garage structure in which it is possible to deliver vehicles to various floors and place the vehicles in any predetermined position.

It is my further object to be able to store vehicles without the necessity for turning and twisting them into various positions to get them into the storage locations.

In particular, it is my object to utilize my invention on narrow pieces of ground and other restricted areas.

In substance, the invention consists of an incoming elevator for elevating the vehicles to various floors, the delivery from the elevator of the vehicle on to the platform, a moving platform which will move the vehicle opposite to the point where it is to be stored, at which point it can be moved directly into its storage location. When it is desired to move the vehicle, it can be backed out upon the platform which will then move the vehicle laterally to deliver it to an exit elevator, which will deliver the vehicle to the ground floor exit.

Referring to the drawings:—

Figure 1 is a plan view of a typical storage floor with the wall of the building in section, cutaway at certain portions to show the location of the entrances and exits to and from the elevators;

Figure 2 is a side elevation of my preferred form of driving the moving platform;

Figure 3 is an alternate form of mechanism for driving the platform.

Referring to the drawings in detail, 1 designates the side wall of a structure, such as a garage, which has an entrance opening 2 into an entrance area 3 on to an elevator platform 4 to the entrance elevator. This serves to deliver the automobile 5 on to the moving platform 6.

It will be understood that the vehicle coming into the entrance opening 2 on to the first floor 3 will be delivered on to the elevator 4 and then elevated to the floor with which the moving platform 6 is associated. This platform is substantially flush with the floor. The floor is designated 7.

Beneath the moving platform 6 are transversely arranged supporting rollers 8 or any other desired form of supporting structure which may be a sub-platform, as shown in Figure 3 and designated 9. The vehicle is run off the elevator on to the platform 6 whereupon the platform is set in motion through the motor 10 operating the driving shafts 11 through the gears 12 and 13 thereby driving by the bevelled pinions 14 the pinions 15 on the drum shaft 16. These drum shafts carry driving drums 17 which support and drive interiorly the moving platform 6. When the vehicle gets to its proper position, the platform is stopped and the vehicle is run off in its original position on to the floor 7 into the position desired between other vehicles.

When it is desired to move the vehicle from the building, all that is necessary is to run the vehicle backwardly on to the platform or forwardly thereon, put the platform in motion until the platform comes opposite the exit elevator 18 whereupon it is run on the elevator, lowered to the first floor 3 and delivered out of the exit opening 19. Thus, it is possible to use buildings of varying sizes and in particular buildings of narrow dimensions.

In the event it is desired to have a very long moving platform, a plurality of driving members may be utilized not only at the ends but intermediate thereof. It is also possible, where a heavy load is to be carried, to use in addition to friction members or any substitution thereof tooth members or any other form of mechanical driving means found desirable.

One form of driving means is shown in Figure 3 in which I provide a control box 20 having a switch arm 21. This box brings into operation alternately through the cables passing through the conduits 22, the end motors 23 and 24 which are provided with drums 25 for alternately moving the moving platform. This switch may also be arranged whereby it will reverse the direction of the motors 23 and 24 but both motors will operate.

It will be understood in connection with Figure 2 the motor employed has a reversible mechanism to bring about its reversal, or mechanical means for reversing it may be employed so that both driving drums will be employed constantly or they may reverse their direction of motion.

In the form shown in Figure 1, it may not be necessary to have a platform adapted to reverse in its direction of movement, but it is preferable.

It will be understood that I desire to employ a plurality of these moving platforms, one or more to each floor, so that the vehicles or any other article may be delivered to each floor and distributed as desired.

It will be understood that I desire to comprehend within my invention such modifications as may be necessary to adapt it to varying conditions and uses.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

In combination, a building having a main floor and one or more upper floors, an entrance, an exit, elevators at opposite ends of the building convenient to said entrance and exit, a moving platform consisting of an endless conveyor located adjacent said elevators and on a level with an upper floor, whereby a given article may be elevated by the elevator at one end of the building to the desired floor, and moved on to said platform on a level with said floor, the platform then moved to distribute the article to a predetermined place on the floor and later conveyed by the same platform to the elevator at the opposite end of the building by which it is returned to the main floor adjacent the exit.

In testimony whereof, I affix my signature.

WILLIAM H. ROBBINS.