J. C. A. ANDERSON.

MOVABLE LOADING PLATFORM.

APPLICATION FILED SEPT. 23, 1916.

1,247,781.

Patented Nov. 27, 1917.

2 SHEETS—SHEET 1.

Fig. 1.

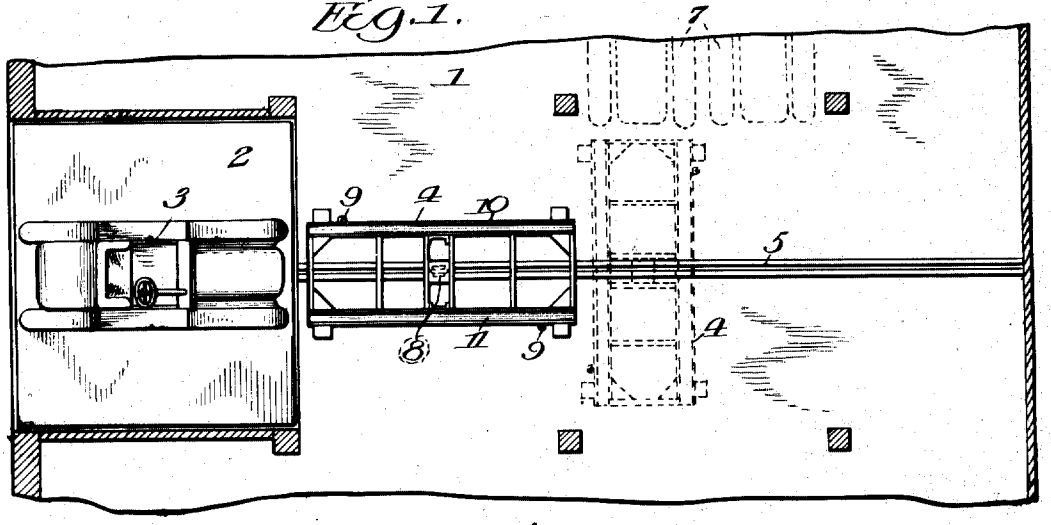


Fig. 2.

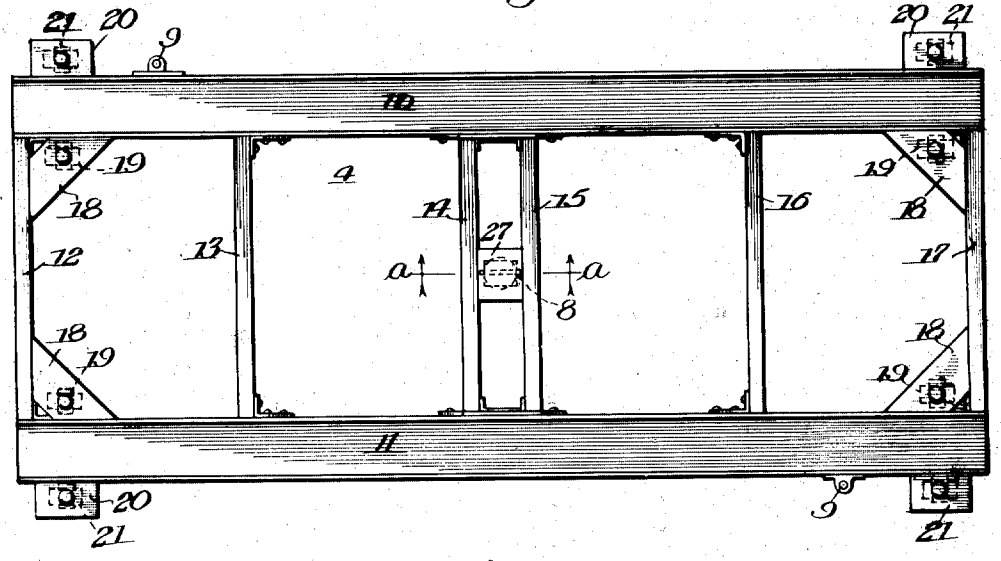
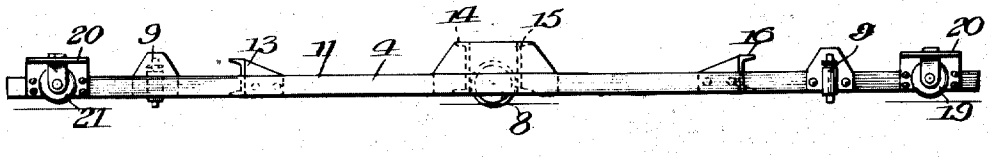


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

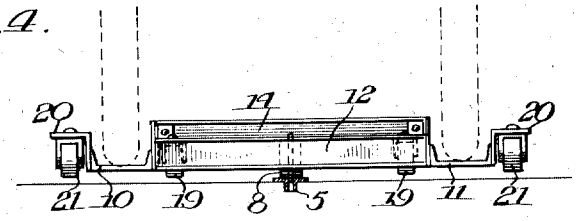


Fig. 7.

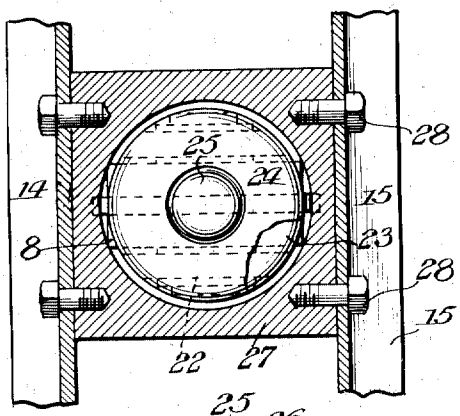


Fig. 6.

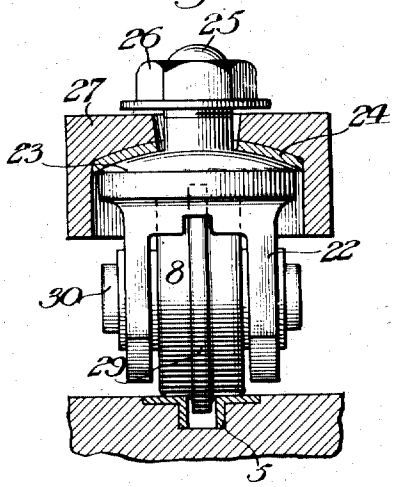
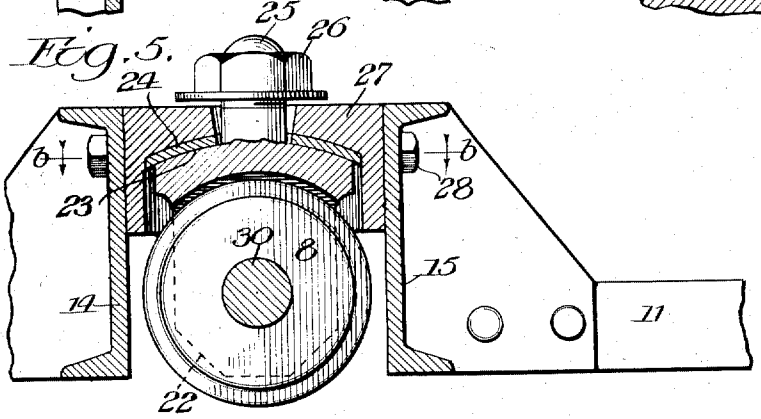


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN C. A. ANDERSON, OF CHICAGO, ILLINOIS.

MOVABLE LOADING-PLATFORM.

1,247,781. Specification of Letters Patent. Patented Nov. 27, 1917.

Application filed September 23, 1916. Serial No. 121,863.

To all whom it may concern:

Be it known that I, JOHN C. A. ANDERSON, a citizen of the United States residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Movable Loading-Platforms, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to movable loading platforms, and has for its object the provision of a movable loading platform which is of particular utility in conveying automobiles or similar objects from place to place within a building. As one form of use, I may point out for instance that under present day congested conditions it has become necessary in order to store automobiles, especially in downtown districts, to provide buildings which usually have several floors devoted to the storage of autobiles, and in which the automobiles are allotted the smallest possible amount of space consistent with safe handling. It has been found that the placing of cars under their own motive power into the stalls and the withdrawal of the cars therefrom necessitates the provision of too large an amount of valuable space. The speed of handling is also of course of prime importance. In a concrete case where a storage garage has space for two hundred cars, it is the custom that these cars are called for within a very short space of time toward the end of the day, and are brought in within a very short period at the beginning of the day. Consequently if these cars are handled under their own motive power, it would take two hundred times the amount of time required for any one car to get them all out, which of course would be prohibitive.

To obviate this difficulty, I have provided a device or platform by virtue of which cars may be very rapidly placed in or withdrawn from respective stalls, and quickly delivered to an elevator or other point of ingress or egress.

I will explain my invention more in detail by referring to the accompanying drawings, illustrating the same, in which

Figure 1 is a fragmentary plan view of a storage room equipped for the use of my improved loading platform;

Fig. 2 is a top view of the loading platform enlarged;

Fig. 3 is a side view of the platform shown in Fig. 2;

Fig. 4 is an end view thereof;

Fig. 5 is a fragmentary sectional view along line *a*—*a* of Fig. 2;

Fig. 6 is an end view partly in section of the structure illustrated in Fig. 5, together with a rail, and

Fig. 7 is a fragmentary sectional view along line *b*—*b* of Fig. 5.

Referring more particularly to Fig. 1, I show a plan view of a room having a floor 1 to which automobiles or similar objects are brought by means of the elevator indicated by the elevator platform 2, an automobile 3, for instance, being shown upon this platform. My improved device 4 is designed to receive the automobile 3, whereupon the device is rolled along the rail 5 as will presently appear to a position opposite the stall wherein the car is to be placed, whereupon the platform is swung angularly into the dotted position, for instance, as shown in Fig. 1; whereupon the automobile may be withdrawn therefrom and rolled into its place in the stall. It will thus be seen that the cars can be placed side by side with practically no waste space between them. Moreover, the free space in the center of the room between the stalls need be but little larger than the length of a car, as under this arrangement the cars do not need to be taken out under their own motive power.

As will be presently explained, the platform 4 is provided with a roller 8 adapted to coöperate with a rail 5, the platform itself being pivotally mounted upon the roller support so that the platform can be swung around without the necessity of having the roller leave the rail. Suitable brakes or stops 9, preferably in the form of door checks, may be employed to hold the platform in any given position whenever it is desired to prevent movement of the platform, as when a car is being rolled into position thereon or withdrawn therefrom.

By referring more particularly to Figs. 2, 3 and 4, I show my improved device as consisting of two channels 10 and 11 running lengthwise of the platform, which channels are elevated only a very slight

distance above the floor, and which are to receive the wheels of the vehicle, as more clearly apparent from Fig. 4. These channels are held together by cross-braces 12 13, 14, 15, 16 and 17, suitably fastened in position preferably by being riveted, as shown. Angle plates 18 are provided at the corners, which angle plates pivotally carry suitable casters or rollers 19. Suitable angle plates 20 are also provided at the various corners to pivotally carry a second series of casters or rollers 21. The manner of supporting the casters 21 is shown more clearly in Fig. 4. Centrally of the device I provide the roller 8 which coöperates, as before stated, with the rail 5. This roller 8 is pivotally mounted in the hanger 22, which hanger has an upper spherical surface as shown at 23 on top of which is placed a shim 24 so that the level of the platform relative to the floor may be adjusted by the use of more or less of the washers or shims 24. The hanger 22 likewise has an upwardly extending bolt 25 by virtue of which through the use of the nut 26 it is held in position upon the bearing block 27. This bearing block 27 is suitably held in the cross-pieces 14 and 15 by the bolts 28.

It will be noted that the adjustment of the central roller 8 is such that if the platform is equally balanced, none of the casters 19 or 21 touch the floor, as is more clearly apparent from Figs. 3 and 4. When, however, the platform is in use, naturally some of the casters will touch the floor during the rolling of the platform from place to place. Due to the fact however that these casters do not touch the floor regularly at all points, an easy swinging of the platform about the central roller 8 is possible, thus to swing it from the full position of Fig. 1 to the dotted position thereof. The roller 8 has a flange 29 more thoroughly to coöperate with the rail 5, this roller being suitably held by the shaft 30 within the hanger 22.

From what has been described it is thought the nature of my invention will be readily clear to those skilled in the art.

Having however thus described one form which my invention may take, what I claim as new and desire to secure by Letters Patent is:

1. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, and a bearing for said roller pivotally and tiltingly associated with said platform.

2. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, a bearing for said roller pivotally and tiltingly associated with said platform, and a plurality of auxiliary rollers carried by said platform, the tilting mounting of said platform permitting one or more of said auxiliary rollers to touch the floor, said first aforesaid roller projecting downwardly below said auxiliary rollers.

3. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, said roller having means about its periphery for confining it to a rail, and a bearing for said roller pivotally and tiltingly associated with said platform.

4. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, said roller having means about its periphery for confining it to a rail, a bearing for said roller pivotally and tiltingly associated with said platform, the tilting mounting of said platform permitting one or more of said auxiliary rollers to touch the floor, said first aforesaid roller projecting downwardly below said auxiliary rollers.

5. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, a bearing for said roller pivotally and tiltingly associated with said platform, and friction brakes carried by said platform.

6. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, a bearing for said roller pivotally and tiltingly associated with said platform, a plurality of auxiliary rollers carried by said platform, the tilting mounting of said platform permitting one or more of said auxiliary rollers to touch the floor, said first aforesaid roller projecting downwardly below said auxiliary rollers, and friction brakes carried by said platform.

7. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, said roller having means about its periphery for confining it to a rail, a beraing for said roller pivotally and tiltingly associated with said platform, and friction brakes carried by said platform.

8. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, said roller having means about its periphery for confining it to a rail, a bearing for said roller pivotally and tiltingly associated with said platform, the tilting mounting of said platform permitting one or more of said auxiliary rollers to touch the floor, said first aforesaid roller projecting downwardly below said auxiliary rollers, and friction brakes carried by said platform.

9. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, and a bearing for said roller pivotally and tiltingly associated with said platform,

said platform having a pair of runways longitudinally thereof adapted to guide the wheels of a vehicle when placed upon said platform.

10. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, a bearing for said roller pivotally and tiltingly associated with said platform, and a plurality of auxiliary rollers carried by said platform, the tilting mounting of said platform permitting one or more of said auxiliary rollers to touch the floor, said first aforesaid roller projecting downwardly below said auxiliary rollers, said platform having a pair of runways longitudinally thereof adapted to guide the wheels of a vehicle when placed upon said platform.

11. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, said roller having means about its periphery for confining it to a rail, and a bearing for said roller pivotally and tiltingly associated with said platform, said platform having a pair of runways longitudinally thereof adapted to guide the wheels of a vehicle when placed upon said platform.

12. A device of the character described comprising a platform, a roller for said platform substantially midway between its sides, said roller having means about its periphery for confining it to a rail, a bearing for said roller pivotally and tiltingly associated with said platform, the tilting mounting of said platform permitting one or more of said auxiliary rollers to touch the floor, said first aforesaid roller projecting downwardly below said auxiliary rollers, said platform having a pair of runways longitudinally thereof adapted to guide the wheels of a vehicle when placed upon said platform.

13. A device of the character described comprising a platform, a roller for said platform substantially at its center, and a bearing for said roller pivotally and tiltingly associated with said platform.

14. A device of the character described comprising a platform, a roller for said platform substantially at its center, a bearing for said roller pivotally and tiltingly associated with said platform, and a plurality of auxiliary rollers carried by said platform, the tilting mounting of said platform permitting one or more of said auxiliary rollers to touch the floor, said first aforesaid roller projecting downwardly below said auxiliary rollers.

15. A device of the character described comprising a platform, a roller for said platform substantially at its center, and a bearing for said roller pivotally and tiltingly associated with said platform, said platform having a pair of runways longitudinally thereof adapted to guide the wheels of a vehicle when placed upon said platform.

16. A device of the character described comprising a platform, a roller for said platform substantially at its center, a bearing for said roller pivotally and tiltingly associated with said platform, and a plurality of auxiliary rollers carried by said platform, the tilting mounting of said platform permitting one or more of said auxiliary rollers to touch the floor, said first aforesaid roller projecting downwardly below said auxiliary rollers, said platform having a pair of runways longitudinally thereof adapted to guide the wheels of a vehicle when placed upon said platform.

17. A device of the character described comprising a platform, and a roller for said platform pivotally and tiltingly associated therewith.

18. A device of the character described comprising a platform, said platform having a pair of runways, and a roller for said platform pivotally and tiltingly associated therewith.

19. A device of the character described comprising a platform, a roller for said platform pivotally and tiltingly associated therewith, and a rail for said roller to confine its movement along which said platform and roller are movable to and fro.

20. A device of the character described comprising a platform, said platform having a pair of runways, a roller for said platform pivotally and tiltingly associated therewith, and a rail for said roller to confine its movement along which said platform and roller are movable to and fro.

In witness whereof, I hereunto subscribe my name this seventh day of September A. D., 1916.

JOHN C. A. ANDERSON.

Witnesses:
MAX W. ZABEL,
HAZEL A. JONES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."