July 11, 1933. R. B. TAYLOR ET AL 1,918,003

PLATFORM FOR LIFT TRUCKS

Filed March 31, 1931

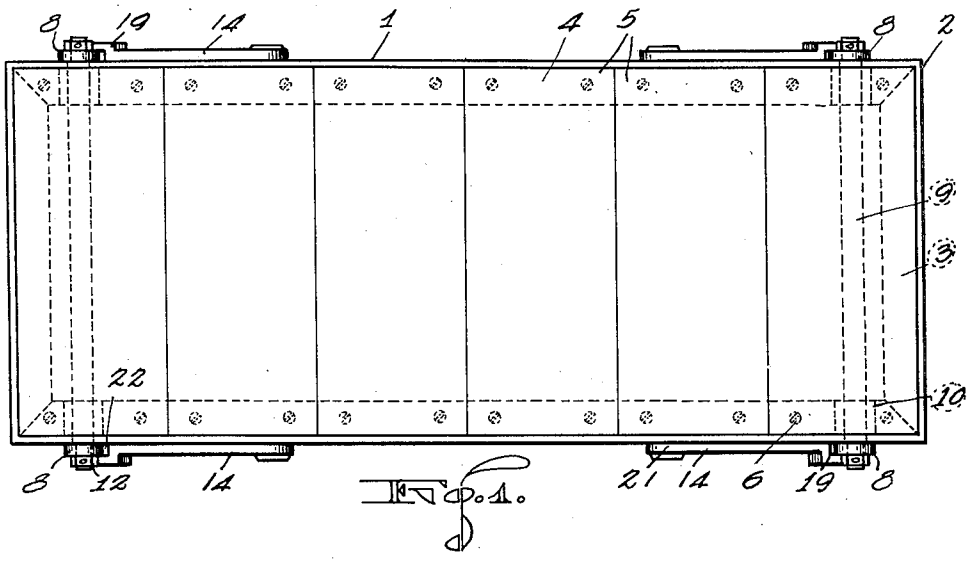


Fig. 1.

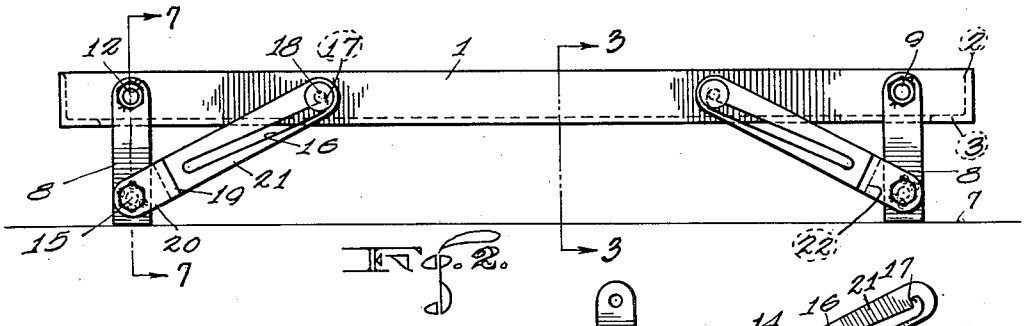


Fig. 2.

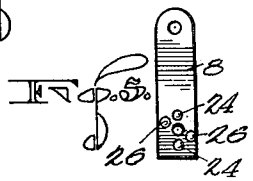


Fig. 5.

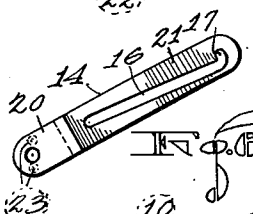


Fig. 6.

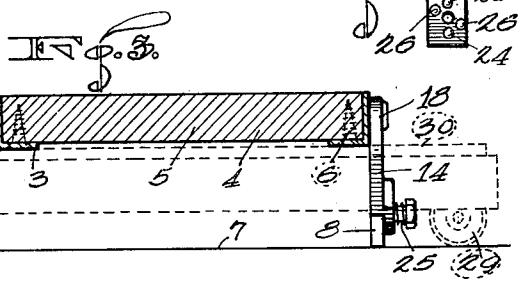


Fig. 3.

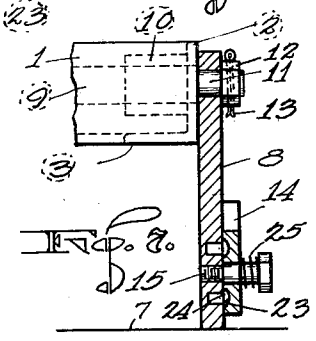


Fig. 7.

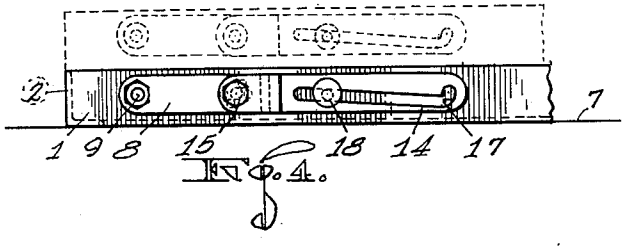


Fig. 4.

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UNITED STATES PATENT OFFICE

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PLATFORM FOR LIFT TRUCKS

Application filed March 31, 1931. Serial No. 526,702.

The present invention relates to improvements in platforms for lift trucks, and it consists in the combinations, constructions and arrangements of parts hereinafter described and claimed.

An object of our invention is to provide a platform that may be used in connection with lift trucks of conventional design, the structural features of the platform being so arranged as to allow the platform to be folded for the purpose of storage. Our design permits the nesting of the platforms one above the other, and each of the platforms will occupy a space not greater than the thickness of the floor portion of the platform.

A further object of the invention is the provision of a platform of rigid construction that will readily withstand stresses and strains, and which will prevent the platform from sagging and thus prevent the lift trucks from being rolled under the platform.

We further provide novel means for spacing the platform at the proper elevation above the supporting surface when they are in use, these means being movable into an out-of-the-way position during the storage of the platforms.

Other objects and advantages will appear as the specification proceeds, and the novel features of our invention will be particularly set forth in the appended claims.

Our invention is illustrated in the accompanying drawing forming a part of this application, in which

Figure 1 is a plan view of our platform;

Figure 2 is a side elevation thereof;

Figure 3 is a transverse vertical section taken along line 3—3 of Figure 2;

Figure 4 is a fragmentary view showing a pair of our platforms in folded position and arranged in stacked relation;

Figures 5 and 6 disclose the legs and braces, respectively, which we employ; and

Figure 7 is an enlarged section along line 7—7 of Figure 2.

In carrying our invention into practice, we provide a substantially rectangular shaped frame 1, which is preferably formed of angle iron, the size and thickness of the same depending upon the capacity of the platform. The legs 2 of the angles are arranged in an upstanding manner as shown in Figure 3, and the legs 3 are disposed so as to project inwardly of the rectangle. The abutting ends of the angles are welded or otherwise secured together.

Referring now more particularly to Figure 1, it will be noted that we provide a floor portion 4 consisting of a plurality of pieces 5 arranged transversely of the frames 1, and having their ends abutting against the flanges 2. The pieces bear against the inwardly extending flange 3, and may be secured to the latter by screws 6 or the like.

The frame 1 entirely surrounds the floor portion of the platform, and the legs of the angles form double reinforcing members across the ends of the platform. The angular-shaped frame is designed to withstand side stresses, and the pieces 5 which form the floor portion are inserted only to support the load, and a minimum amount of stress is thus brought to bear on the floor proper.

We provide means for holding the frame 1 in spaced relation with respect to the supporting surface 7, and for this purpose we have shown legs 8. These legs are carried by rods or shafts 9 that extend the entire width of the platform and are revolvably supported in sleeve bearings 10, these bearings being preferably welded to the frame 1 so as to form an integral part thereof. It should be noted that the rods or shafts 9 also act as reinforcing members for the frame and the floor.

Figure 7 shows the rods or shafts as having reduced ends 11 on which the legs 8 are pressed. The ends of the rods in turn are threaded for receiving nuts 12, the latter being secured in adjusted position by means of cotter pins 13.

Braces 14 are swingably secured to the supporting legs by bolts 15, and the braces are fashioned with slots 16 that terminate in hook-shaped end portions 17. Lugs 18 are mounted on the sides of the frame 1, and project through the slots 16 so as to act as guides. The end portions 17 of the slots present shoulders which are adapted for en-

gagement with the lugs 18 for holding the legs in extended position.

In Figure 1, we show the braces as being offset at 19 for providing sections 20 and 21, the latter bearing against the sides of the frame 1. The free ends of the supporting legs are accommodated in the space 22 when the legs are folded, and it will be observed that the legs and the braces are disposed within the planes defined by the floor thickness when the legs are folded.

We have further provided means for positively holding the legs in either extended or folded position. The inner surface of the brace section 21 is formed with a pair of depressions 23 which register with the heads of studs or raised surfaces 24 when the legs are moved into extended position, and the heads are urged into the depressions by a spring 25, see Figure 7. These depressions are also adapted for registry with a second pair of raised surfaces 26 when the legs are folded in the manner shown in Figure 4.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. The legs 8 are swung into operative position, and are held in place by the braces 14 as shown in Figure 2. The frame is thus spaced from the supporting surface and allows a lift truck indicated at 27 to be rolled under the platform.

The lift truck may be of any suitable construction and we have indicated the same in Figure 3 as including a frame 28 having supporting wheels 29 and an auxiliary frame 30. The latter is movable with respect to the supporting surface by any suitable means (not shown) so as to elevate the platform until the free ends of the legs 8 clear the supporting surface. The platform is then movable into its new position through the medium of the lift truck.

When it is desired to place the platforms in storage, the legs are folded against the sides of the frame 1, and the braces 14 are brought along side of the frame. Spring 25 becomes active upon the registering of the depressions 23 with the raised surfaces or stud heads 26 for holding the legs and braces folded. The free ends of the legs project into the space 22.

Our platform is particularly well designed for moving articles of merchandise in factories, shops or similar places, and goods may be packed on these platforms for shipping. When the platforms are not in actual use, they are foldable into a compact unit and may then be nested in stacked relation for storage in the manner shown in Figure 4.

While we have shown only one embodiment of our invention, it should be understood that we reserve the right to make changes or modifications within the scope of the claims without departing from the spirit of the invention.

We claim:

1. In a platform of the character described, a frame, legs swingably secured thereto, and braces pivoted to the legs and adapted for engagement with the frame, the confronting surfaces between the legs and the braces having depressions and raised surfaces adapted for registry when the legs are moved into extended or folded position for holding the legs against movement.

2. In a platform of the character described, a frame, legs swingably secured thereto, and braces pivoted to the legs and adapted for engagement with the frame, the confronting surfaces between the legs and the braces having depressions and raised surfaces adapted for registry when the legs are moved into extended or folded position for holding the legs against movement, and yielding means for urging the raised portions into the depressions.

3. A platform of the character described comprising a frame, a pair of legs pivotally secured thereto on each side and braces pivoted to the legs near the extremities thereof and retractably secured to the frame, the braces being offset at the pivot to allow the ends of the legs to be accommodated in the offsets when the legs are swung into inactive position for effecting perfect alinement between the braces and the legs.

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