Oct. 3, 1944. D. H. CROSSER 2,359,406

PORTABLE PLATFORM FOR LIFTING TRUCKS

Filed Dec. 1, 1943 2 Sheets-Sheet 1

Fig. 1.

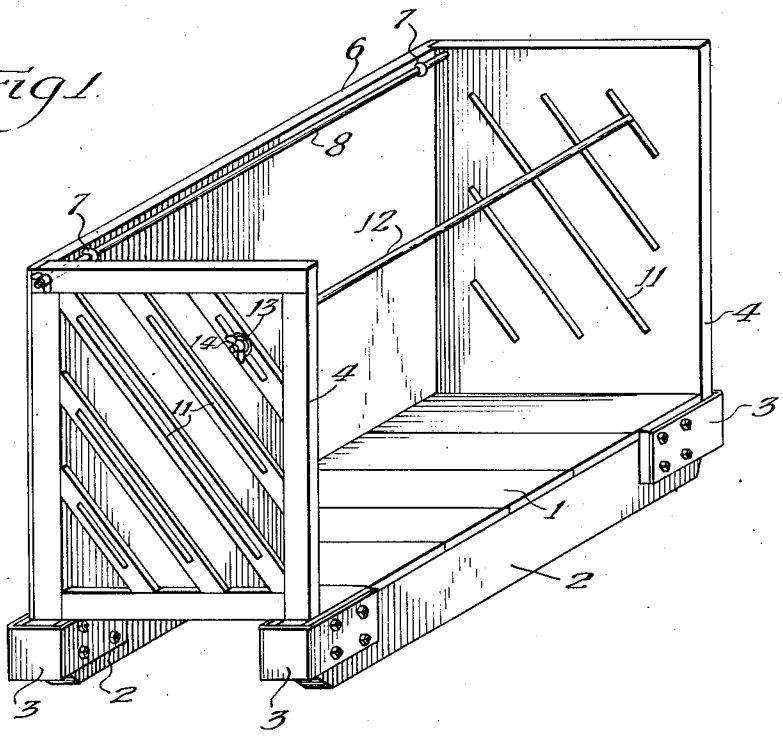


Fig. 2.

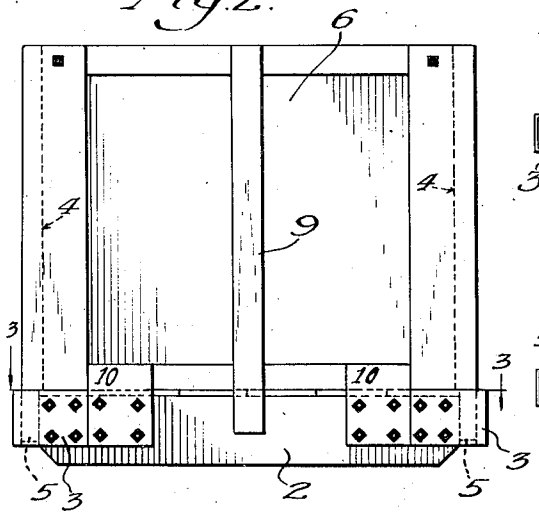
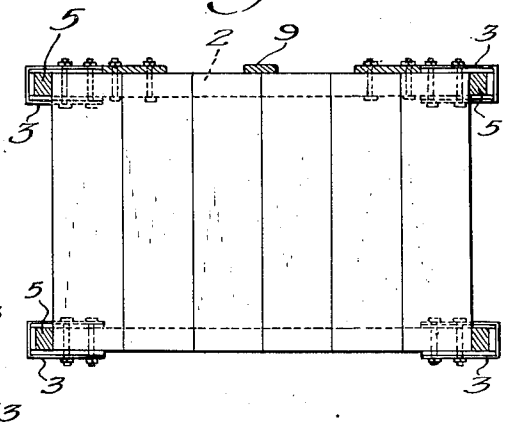


Fig. 3.



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Filed Dec. 1, 1943 2 Sheets-Sheet 2

Fig. 4

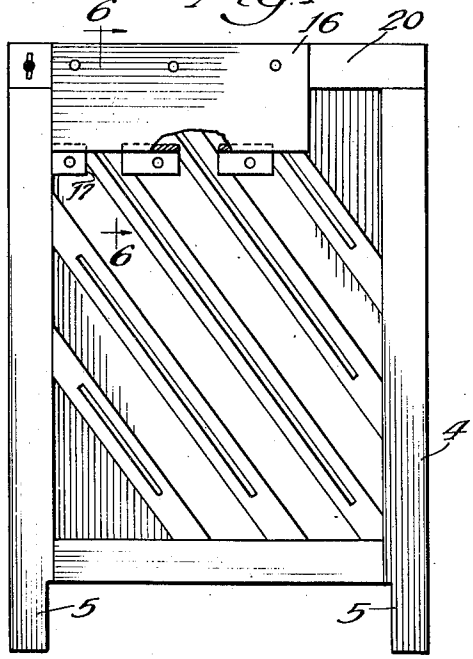


Fig. 5

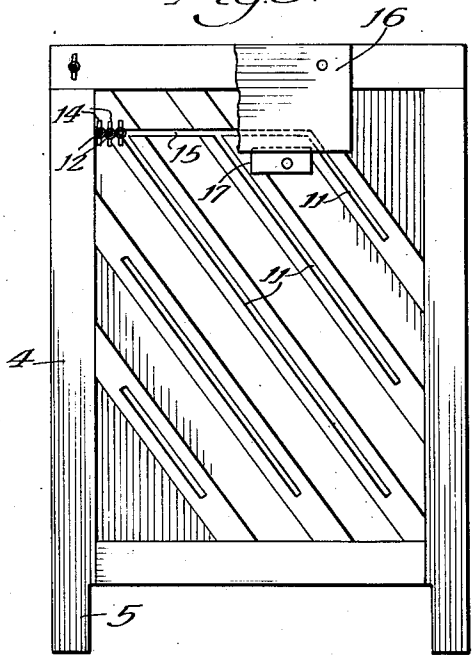


Fig. 6

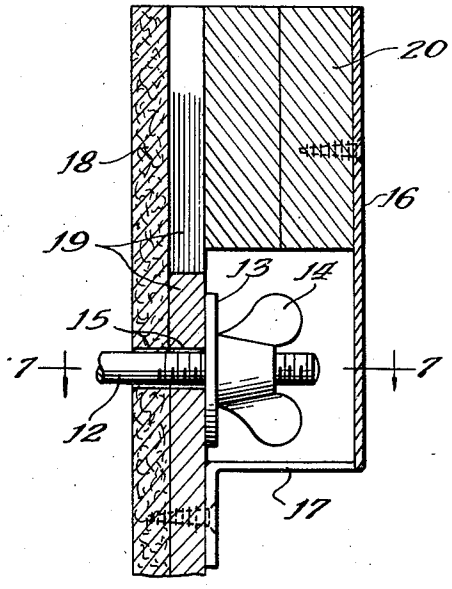
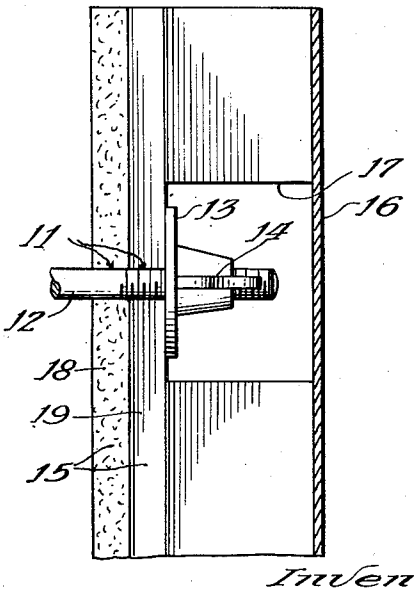


Fig. 7



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PORTABLE PLATFORM FOR LIFTING TRUCKS

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7 Claims. (Cl. 248—120)

At the present time socalled skids, which are small, raised platforms beneath which lifting trucks may be introduced to lift them clear of the floor and move them from place to place, are largely used for supporting a great variety of things, especially masses of sheet material. In some cases it is difficult to arrange the load so that it will be stable and yet sufficiently large for efficient service. Card board blanks for cartons, for example, are arranged in stacks which are apt to fall apart, whether placed so that the individual blanks lie flat or stand on edge, upon moving the supporting skid or platform about.

The object of the present invention is to make it possible to hold the load securely on such skids or platforms by means that are simple, inexpensive and effective, without increasing the labor cost and without making loading and unloading more difficult than heretofore.

In carrying out my invention I provide any usual or suitable skid or platform, of the type under consideration, with end walls and preferably, also, with a back wall; these walls being preferably detachably interlocked at their lower ends with the skid or platform and rising to a considerable height above the latter. Means are provided to rock the end walls toward each other and act as clamps gripping the load while, at the same time, the end walls hold the upper part of the back wall in place.

The various features of novelty whereby my invention is characterized will hereinafter be pointed out with particularity in the claims; but, for a full understanding of the invention and of its objects and advantages, reference may be had to the following detailed description taken in connection with the accompanying drawings, wherein:

Figure 1 is a perspective view of a skid or platform equipped in accordance with the present invention; Fig. 2 is a rear elevation of the apparatus; Fig. 3 is a section on line 3—3 of Fig. 2; Fig. 4 is an elevational view of one of the detachable end walls, on a larger scale and containing a modification; Fig. 5 is a view similar to Fig. 4, the greater part of the bridge plate being broken away; Fig. 6 is a section, on a still larger scale, on line 6—6 of Fig. 4, with a tie rod about to enter one of the diagonal slots; and Fig. 7 is a section on line 7—7 of Fig. 6.

Referring to the drawings, 1 is a flat bed or floor spanning and fastened to a pair of spaced runners or sills 2; this being a common construction. At each corner is a socket 3, open at the top; these sockets being conveniently carried by the sills so as not to form any obstruction above the plane of the supporting surface of the structure. At each end of the device is an end wall 4 of any desired construction, as long as it is both light and strong. Each end wall is provided with legs, best shown in Figs. 4 and 5, that fit into the sockets at that end of the bed or platform. These walls may therefore be removed by simply raising them high enough to lift the legs clear of the sockets. A rear wall 6 rests on the floor or bed and overlaps the edge faces of the end walls. On the inner side of the rear wall, near the top, are a pair of projecting eyes 7. A long tie rod 8 extends through these eyes and through the end walls, securing them together. On the outer side of the rear wall is a central vertical bar 9 that projects down and overlaps the sill or runner on that side. Other pieces 10, fixed to the rear sill and overlapping the rear wall complete the interlock between the platform and rear wall.

In the simplest form of the invention, as shown in Fig. 1, each end wall contains a group of diagonal slots 11, distributed over the same so as to cover almost the entire area thereof. The slots may conveniently be parallel to one diagonal of the corresponding wall and be distributed over almost the entire length of the other diagonal. In the arrangement shown, the slots are inclined downwardly and forwardly, although any disposition that will bring each slot in one wall parallel to the corresponding slot in the other wall will suffice. For cooperation with the slots any desired number of lengthwise-adjustable tie rods, long enough to reach from one end wall to the other, may be provided. In Fig. 1 there is only one such rod, indicated by the reference character 12. Each tie rod has on at least one end, and preferably on both, a washer 13 and a wing nut 14.

After a skid or platform has been loaded or partially loaded, a tie rod may be inserted into corresponding slots in the two end walls and lowered until it contacts or is near the goods. The nuts on the rod or at least one of them, if there are nuts at both ends, are then tightened. This draws the end walls toward each other sufficiently to cause the goods to be clamped between them. In the case of carton blanks or the like, standing on edge, the blanks may be packed in until they cover the whole floor from one end wall to the other. It may be that several layers may be built up before there is any need to clamp them in. In any event, the slots enable the workmen quickly and easily to apply a tie rod in the most advantageous location. If necessary, additional

tie rods may be applied as the load is built up; this being possible without placing obstructions in the way of even stacking, in the case of carton blanks, because these have edge irregularities that provide notches or grooves in the tops of a mass of blanks standing on edge.

In Figs. 4 to 7 I have shown how a tie rod 12 may be mounted so that it need not be disconnected to get it out of the way during loading and unloading. For the sake of clarity the same end wall as in Fig. 1 is included in these views although any desired wall structure and slot arrangement may be employed. It will be seen that there is a horizontal slot 15 extending from the rear toward the front, near the top of the wall. This slot intercepts all of the diagonal slots that extend that far up; these diagonal slots forming branches or tributaries of the horizontal slot. The horizontal slot may extend rearwardly far enough beyond the rearmost diagonal slot to provide room for the reception and storing of a number of tie rods; three such rods being shown in Fig. 5. When a tire rod is needed, the one that is in front is drawn forward until it registers with the selected tributary slot and is then lowered in that slot to the required level.

For the purpose of strengthening the wall in the region of the horizontal slot, I secure a bridging plate 16 to the wall over the slot. This plate forms with the wall a tunnel outside of and along the horizontal slot. The corresponding ends of the tie rods, with their washers and nuts, can move freely along this tunnel between working positions and the idle positions. The plate has cut-outs 17 in the bottom to permit the rod end, with its washer and nut, to pass freely from a horizontal slot to a diagonal slot, or in the reverse direction.

In Figs. 6 and 7 I have illustrated a simple wall construction which has been found very satisfactory in actual use. The body of the wall is a sheet of wallboard 18 reinforced with wood strips 19 in which the slots 11 lie. The whole is strengthened by a sturdy frame 20 that follows along the border of the body member. This frame may conveniently be composed of two thicknesses of about three quarter inch wood. Furthermore, the legs 5 may be downward extensions of the vertical elements of the frame.

While I have illustrated and described with particularity only a single form of my invention which has been found satisfactory in actual commercial use, together with a slight modification, I do not desire to be limited to the structural details thus illustrated and described; but intend to cover all forms and arrangements which come within the definitions of my invention constituting the appended claims.

I claim:

1. In combination, a bed or platform member for supporting materials, opposed end walls rising from said member, each wall having long diagonal slots therein, corresponding slots in the two walls being parallel, and one or more lengthwise adjustable tie rods extending through corresponding slots in said walls and tying them together.

2. In combination, a bed or platform member for supporting materials, opposed walls rising from the ends of said member, each wall having therein a group of long slots paralleling one diagonal and distributed along the other diagonal, the two groups being similar and corresponding slots in the same being parallel to each other, and one or more tie rods extending through and adjustable along corresponding slots in the two walls to tie the walls together.

3. In combination, a bed or platform member for supporting materials, opposed end walls rising from and detachably mounted on said member, each wall having therein a group of parallel, long, diagonal slots, the two groups being similar and corresponding slots in the same being parallel to each other, and one or more tie rods long enough to extend from one wall to the other and through corresponding slots in the walls to tie the walls together.

4. In combination, a bed or platform member for supporting materials, two end walls and a rear wall detachably interlocked at their lower ends with and rising from said member, each end wall having therein a group of long, parallel diagonal slots spaced apart along a line at right angles thereto, the two groups of slots being similar to each other and being so disposed that corresponding slots in the groups are parallel, one or more tie rods long enough to extend from one end wall to the other and through corresponding slots in the latter to tie the end walls together, and means detachably securing the upper part of the rear wall to the end walls.

5. In combination, a bed or platform member for supporting materials, two end walls and a rear wall detachably interlocked at their lower ends with and rising from said member, each end wall having therein a group of long, diagonal slots, the two groups being similar and being so disposed that each slot in one group is parallel to the corresponding slot in the other group, one or more tie rods long enough to extend from one end wall to the other and through corresponding slots in such walls to tie those walls together, eyes on the rear wall near the top, and a tie rod extending through both end walls and through said eyes.

6. In combination, a bed or platform member for supporting materials, opposed end walls rising from said member, each end wall having therein a long, horizontal slot and a group of other long slots extending downwardly from the horizontal slot and constituting tributaries thereof, and one or more adjustable tie rods extending between said walls and through said horizontal slots, the tributary slots each being wide enough to receive a rod and permit the latter to be moved into any position along the same.

7. In combination, a bed or platform member for supporting materials, opposed walls rising from said member, each wall having therein, near the top, a long, horizontal slot and a plurality of diagonal slots in spaced relation to each other below and opening into the horizontal slot, and one or more adjustable tie rods long enough to extend from one wall to the other and through both of them, whereby the rod or rods may be stored in one end of the two horizontal slots or be disposed anywhere along the diagonal slots for tying said walls together.

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