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V. D. ESHNAUR
LOADING DOCK COVER

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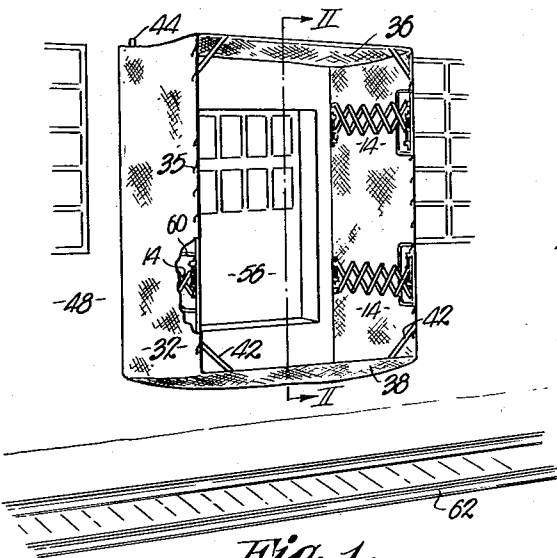


Fig. 1.

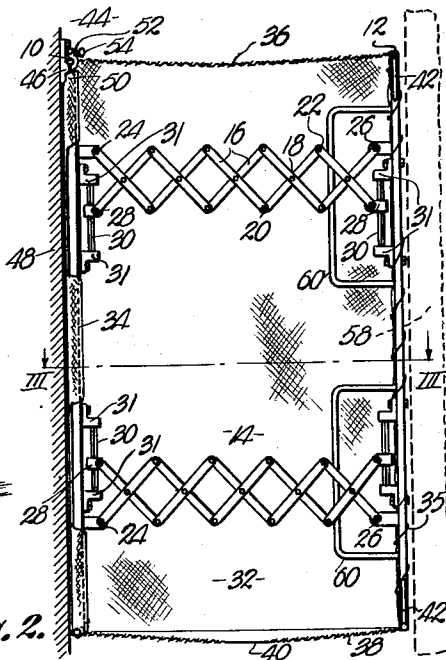


Fig. 2.

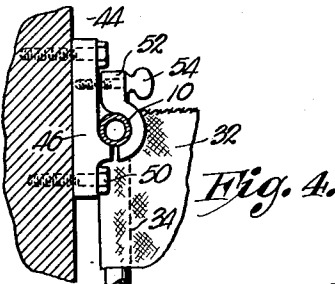


Fig. 4.

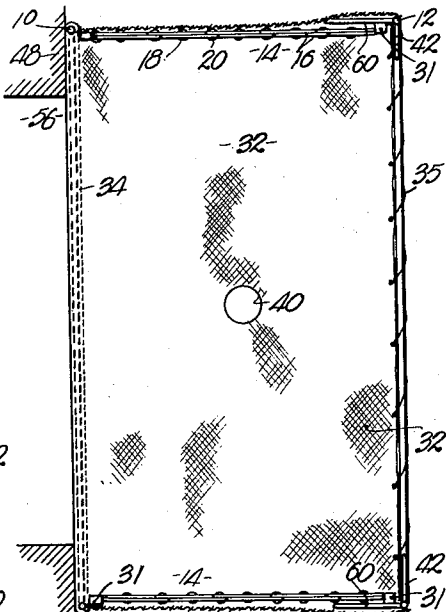


Fig. 6.

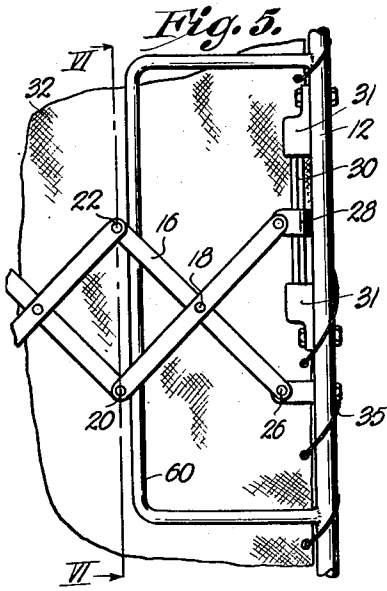


Fig. 5.

Fig. 3. INVENTOR.
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UNITED STATES PATENT OFFICE

2,567,995

LOADING DOCK COVER

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4 Claims. (Cl. 135—5)

1

This invention relates to loading dock covers of the kind adapted to be disposed between a warehouse door or the like and a railway car, truck or other hauling means for protecting the warehousemen, as well as the articles of merchandise being loaded or unloaded from the railway car to the warehouse. This is an improvement over my application Serial No. 723,148, filed January 20, 1947, now abandoned.

The primary object of this invention is to provide a loading dock cover having a pair of spaced apart frames for supporting a strip of flexible material and provided with means interconnecting the frames in the form of extensible linkage, permitting collapsing the entire assembly to an inoperative position, where the same is out of the way.

The most important object of this invention is to provide a loading dock cover, having a pair of spaced apart, endless tubular frames, held in substantial alignment and for shiftable movement toward and from each other by a plurality of "lazy tong" type of linkage, which frames have a strip of flexible material interconnecting the same to afford protection from the elements when the same is in operative use.

Other objects of this invention include the novel suspension means for holding the same in circumscribing relation with the warehouse door or the like; the manner in which the aforesaid linkage holds the frame opposite to the suspension brackets in an elevated operative position throughout its shiftable path of travel; and the manner of protecting the flexible material out of engagement, and thereby protected from injury by the said linkage.

Other objects will be made clear during the course of the following specification, reference being had to the accompanying drawing, wherein:

Figure 1 is a perspective view of a loading dock cover made in accordance with my present invention, showing the same in operative position over a warehouse door.

Fig. 2 is a cross-sectional view taken on line II—II of Fig. 1.

Fig. 3 is a cross-sectional view taken on line III—III of Fig. 2.

Fig. 4 is a fragmentary, enlarged, detailed view of one of the suspension brackets.

Fig. 5 is a fragmentary, detailed view showing the manner of mounting one end of the linkage; and

Fig. 6 is an end view of the linkage mounting means, illustrated in Fig. 5.

2

In the drawing, the numerals 10 and 12 represent a pair of substantially identical frames, each comprising an endless tubular member. These frames 10 and 12 each constitute an endless band, defining openings that are held in substantial alignment by a plurality of brackets broadly designated by the numeral 14. These brackets 14 are all substantially the same and, therefore, only one needs to be described. A plurality of links 16 are disposed in relative crossed relation, pivotally mounted at their points of intersection as at 18 and at each end thereof as at 20 and 22 respectively. Such construction is of the well-known "lazy tong" type and it is readily understood that as one end of such linkage 14 is pushed inwardly, the same will collapse or shorten.

One of the links 16 at each end of the linkage 14 is pivotally mounted to frames 10 and 12, as at 24 and 26 respectively, while the other link at each end thereof pivotally carries a sleeve 28. These sleeves 28 are free to slide vertically on a respective rod 30, mounted on each of the frames 10 and 12 respectively through the medium of brackets 31. As frame 12 is moved inwardly, therefore, and all the links 16 caused to pivot at points 18, 20, 22, 24 and 26, sleeves 28 are moved downwardly on rod 30 to permit movement of this frame 12 to a position lying flatly against the innermost frame 10. Such construction of these linkage assemblies 14 assures that the frame 12 will be maintained in alignment with the opening formed by frame 10 throughout its path of travel. A strip of flexible material broadly designated by the numeral 32, entirely circumscribes both of the frames 10 and 12 to create a body extending around the opening 56, and having one marginal edge looped over frame 10, and stitched as at 34. The opposite marginal edge of strip 32 is secured to frame 12 by lacing 35.

It is notable by viewing Figs. 1 and 2, that that portion of the flexible strip (which is preferably formed from canvas or the like) forming the uppermost wall 36 is slightly longer than the side walls thereof to the end that moisture will be collected to run along the sides of the strip 32 rather than over the ends of frames 10 and 12.

Furthermore, when moisture collects on the bottom wall 38, formed by the canvas 32, it is free to flow out of an opening 40 formed therein. A plurality of corner braces 42 provide additional support and adds strength to the outermost frame 12.

A two-point suspension for the entire assembly is provided, which comprises a pair of brackets 44. These brackets comprise a plate 46, mounted directly upon the wall of warehouse 48 by a pair of bolts or the like 50. The other section of the brackets 44 comprises a hook-like member 52 held in position by a bolt 54 in screw-threaded engagement with the frame 46. This hook 52 partially circumscribes a part of the uppermost section of the frame 10, as is clear in Fig. 4 and as bolt 54 is moved into place, this frame 10 will be held in clamping relation between member 46 and the hook 52. These brackets 44 are disposed directly above the door 56 of warehouse 48 and hold the frame 10 of the cover in circumscribing relation with this door 56.

In some forms of the dock cover, frame 10 and brackets 44 may be eliminated and the marginal edge of strip 32 adjacent to the warehouse 48, secured directly thereto. When frame 10 is so eliminated, brackets 31 are secured to the wall of warehouse 48 to form a support for the entire assembly.

To protect the canvas 32 from injury by the linkage 14 as frame 12 is moved toward and from frame 10, there is provided a guard 60 for each lazy tong linkage 14. These guards 14 are in the form of rods or the like formed into a U-shaped body with the ends welded to frame 12 at points on each side respectively of rod 30 to which linkage 14 is secured. Thus, when frame 12 is moved toward or from frame 10, guards 60 will prevent canvas 32 from entering between the component parts of linkage 14 and thereby become damaged. Guards 60 are between canvas 32 and linkage 14 and the width of the guard, or the distance inwardly that it extends, is slightly less than the distance between frames 12 and 10 when the same are as close together as linkage will permit when the dock cover is collapsed.

In operation, as a railway car 58 is moved upon its tracks 62 to a position where its door is in alignment with door 56 of warehouse 48, the frame 12 is moved to a position where the entire assembly is collapsed and out of the way to prevent accidental damage by movement of the railway car 58. A platform is then usually extended between door 56 of warehouse 48 and the door of the railway car 58 for facilitating removal of merchandise or loading the same and movement of the frame 12 to a position where the same is against the railway car 58, as illustrated in Fig. 2, entirely closes the space between warehouse 48 and car 58. The warehouseman is thereby protected and the merchandise he is handling is also prevented from being damaged by wind or rain.

It is notable that this loading dock cover is extremely light and easy to handle; extremely inexpensive to manufacture; easy to move to and from an inoperative position as desired and with a minimum amount of time lost; and a highly effective protection is afforded by its use.

It is contemplated that modification in details of construction may be made without departing from the spirit of this invention or scope of the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A loading dock cover of the character described comprising a pair of open frames; means for securing one of the frames to a support such

as a building wall; lazy tong linkage joining said frames to support and to allow rectilinear movement of the other frame toward and from the one frame wherein the latter is in an operative position secured to a building wall; a strip of canvas having its marginal edges secured to the frames respectively and bridging the distance between the frames throughout the path of movement of said other frame toward and from the said one frame; and a drain opening formed in the lowermost stretch of the strip of canvas.

2. A loading dock cover of the character described comprising a pair of open frames; means for securing one of the frames to a support such as a building wall; lazy tong linkage joining said frames to support and to allow rectilinear movement of the other frame toward and from the one frame wherein the latter is in an operative position secured to a building wall; a strip of canvas having its marginal edges secured to the frames respectively and bridging the distance between the frames throughout the path of movement of said other frame toward and from the said one frame; and a guard between the linkage and said canvas to prevent the latter from entering the linkage during movement of the other frame toward and from the said one frame.

3. A loading dock cover of the character described comprising a pair of open frames; means for securing one of the frames to a support such as a building wall; lazy tong linkage joining said frames to support and to allow rectilinear movement of the other frame toward and from the one frame wherein the latter is in an operative position secured to a building wall; a strip of canvas having its marginal edges secured to the frames respectively and bridging the distance between the frames throughout the path of movement of said other frame toward and from the said one frame; and a guard mounted on the said other frame between the said linkage and said canvas to prevent the latter from entering the linkage during movement of the said other frame toward and from the said one frame.

4. A loading dock cover of the character described and adapted for attachment to a building wall having an opening therein, an open frame; lazy-tong linkage supporting said frame for movement toward and from the wall in circumscribing relation with the said opening; a strip of canvas extending around the frame with one of its marginal edges secured to the same; means for securing the opposite marginal edge of the canvas to the wall; and a guard mounted on the frame between the linkage and said canvas, to prevent the latter from entering the linkage during movement of the frame toward and from the building wall.

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