

Jan. 8, 1952

W. D. HALL

2,581,529

BINDING STRAP ANCHORING MEANS

Filed Oct. 26, 1946

Fig. 1.

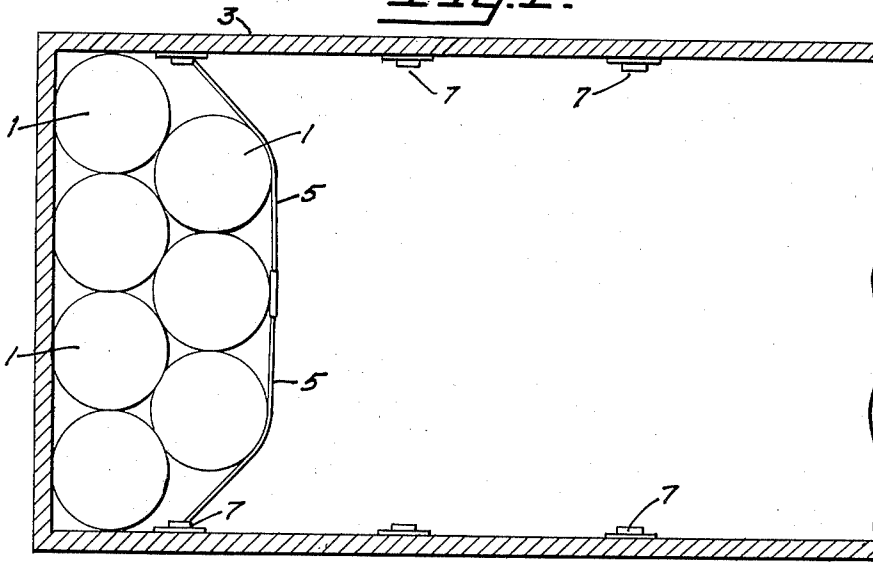


Fig. 2.

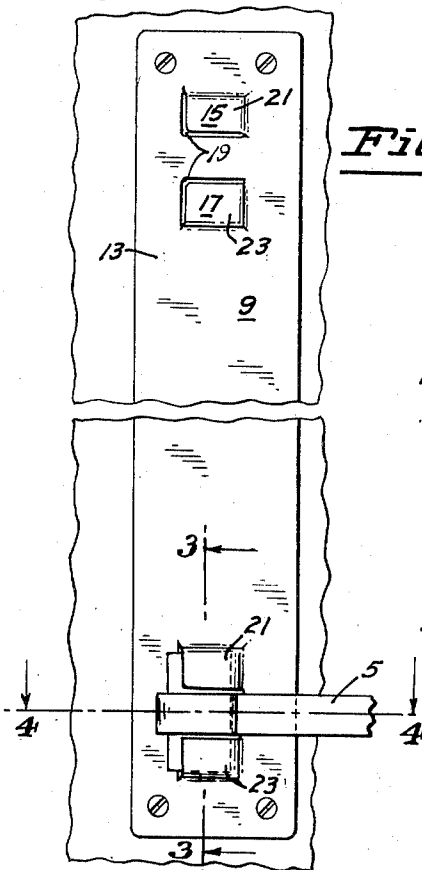


Fig. 3.

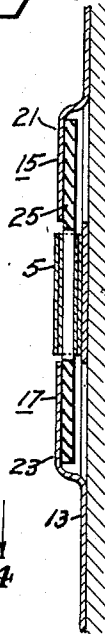
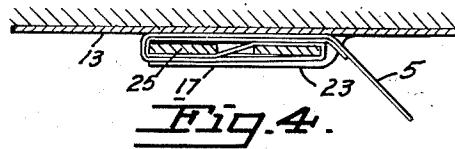
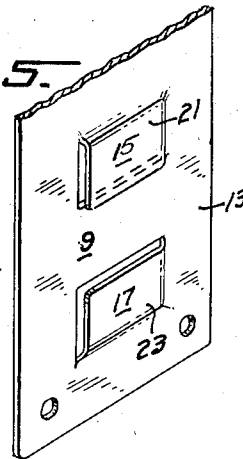


Fig. 6.



Fig. 5.



INVENTOR.
WARREN D. HALL
BY *Brull & Brooker*

HIS ATTORNEYS

UNITED STATES PATENT OFFICE

2,581,529

BINDING STRAP ANCHORING MEANS

Warren D. Hall, Oakland, Calif.

Application October 26, 1946, Serial No. 705,879

5 Claims. (Cl. 105—369)

1

2

My invention relates in general to freight loading of cars, ships or the like, and more particularly to anchoring means for binding straps employable in stabilizing freight against shifting during transit.

Among the objects of my invention are:

(1) To provide a novel and improved anchoring means for binding strap employed in the stabilizing of freight during shipment thereof;

(2) To provide a novel and improved anchoring means permitting of rapid and solid anchoring of a binding strap to a supporting structure;

(3) To provide a novel and improved strap anchoring means which requires no permanent affixing of any anchoring components thereof to the strap to be anchored;

(4) To provide a novel and improved strap anchoring means which may be readily affixed to a supporting structure without undue interference with the stowing of freight in such space as is available therefor;

(5) To provide a novel and improved strap anchoring means capable of being readily disassembled in preparation for the unloading of freight stabilized thereby;

(6) To provide a novel and improved anchoring means which may be employed to removably anchor a binding strap with a minimum of wear on the strap so anchored.

Additional objects of my invention will be brought out in the following description of a preferred embodiment of the same taken in conjunction with the accompanying drawings wherein

Figure 1 is a plan view in section through a freight car or the like illustrating the purpose of the present invention;

Figure 2 is a front elevational view of an anchoring strip constituting a component of the present invention, and illustrating its manner of installation and utilization;

Figure 3 is a longitudinal view in section taken in the plane 3—3 of Figure 2;

Figure 4 is a transverse view in section taken in the plane 4—4 of Figure 2;

Figure 5 is a three-dimensional view of a portion of the anchoring strip of Figure 2;

Figure 6 is a three-dimensional view of an anchor for cooperative use with the anchoring strip in effecting the objects of the present invention.

Referring to Figure 1, the invention relates to the loading of freight 1 in a freight carrier such as a freight car 3 or the like, and is particularly pertinent to that system which utilizes a pair of

straps 5, or their equivalent, each of which is affixed, at one end, to a selected one of many anchoring means 7 located at corresponding spaced intervals on the opposing walls of such freight car. Following the loading of a particular shipment, the straps are joined together under tension at their free ends to bind the particular shipment against shifting in transit.

The novelty of the present invention resides in the particular anchoring means, which includes an anchoring strip 9 for attachment to the walls of such freight-carrier, and a strap anchor 11 for cooperative locking with said anchoring strip, both of which elements, while of extremely simple design, provide numerous advantages in the use thereof.

More specifically, such anchoring strip is formed of a narrow strip 13 of heavy gauge sheet metal running substantially the full height of the wall to which it is to be attached. At spaced longitudinal intervals, the strip is provided with pairs of tabs 15 and 17 lying in a proximate substantially parallel plane, the tabs of each pair being spaced a distance slightly in excess of the width of the strap 5 to be used in conjunction with the anchoring means for binding the freight.

In the preferred embodiment of my invention as illustrated, such tabs are formed by providing the strip with pairs of opposed right-angle die cuts 19 and then forcing out the material of the strip which is enclosed within said angle cuts to such proximate plane to create tabs in the form of a pair of oppositely disposed shallow corner pockets 21 and 23.

The anchor component for use with such anchoring strip, in its preferred form, constitutes a simple plate 25 of substantially rectangular shape and of a size adapted to loosely slide beneath any of the aforementioned pairs of tabs or in the preferred embodiment, into the associated corner pockets, when the tabs take such form.

The plate is provided with a centrally disposed opening 27 of a length sufficient to permit the threading of a strap therethrough.

In utilizing the invention, the end of a strap 5 is threaded through the anchor plate, preferably leaving a few inches of the free end of the strap hanging. The plate is then wrapped one or more complete turns in the strap, causing the loose end to double over one or more of the edges of the plate. Thus, such free end becomes snubbed against slipping, and is further held against such slipping by the outer wrapping

3

of the strap which binds the free end to the anchor plate.

With the anchor thus attached to the strap, the anchor is inserted beneath the tabs, preferably with the strap emerging from between the anchor plate and the anchoring strip, whereby tensioning of the strap in the subsequent binding of the freight in the manner previously described, will not set up any undesired stresses in the anchoring means, but which on the other hand will more firmly hold the anchor in its anchoring position.

When so anchored, the strap is securely fastened with no possibility of slip. Nevertheless, the strap may be easily removed when desired without the necessity of untying knots, unscrewing bolts, or unlocking hard-to-open clamps.

My novel and improved clamping means may be applied to existing structures just as readily as it may be incorporated into the design of new ones, and by reason of its inherent shallow construction, it will not, among other things, interfere with the space available for the loading of freight.

The term "strap" is used in a generic sense to include such binding means as wire, rope, etc., it being understood that when such binding means is of appreciable thickness, the anchor may be bulged across the horizontal mid-section to facilitate its use with such binding means.

From the above description of my invention in its preferred form, it is apparent that the same fulfills all the objects recited therefor, and while I have described the same in considerable detail, I do not desire to be limited in my protection to such details, except as may be necessitated by the appended claims.

I claim:

1. Binding strap anchoring means comprising an anchoring strip for affixation to a wall of a freight carrier, said strip including a pair of tabs lying in a proximate substantially parallel plane, said tabs being spaced apart a distance in excess of the width of a binding strap to be anchored; an anchor for reception beneath said tabs said anchor comprising a plate of substantially rectangular shape having a centrally disposed opening of a length permitting the threading of a strap therethrough, and means for precluding release of said anchor from behind said tabs when pull is exerted on said anchor in one direction.

2. A binding strap and anchoring means comprising an anchoring strip affixed to a wall of a freight carrier, said strip including a pair of tabs lying in a proximate substantially parallel plane, said tabs being spaced apart a distance in excess of the width of a binding strap to be anchored; an anchor comprising a plate of substantially rectangular shape having a centrally disposed opening forming a pair of spaced bars, said opening being of a length permitting the threading of a strap therethrough, said anchor being disposed under said tabs; and a strap having one end wrapped about one of said bars and snubbed against the other.

3. Binding strap anchoring means including an anchoring strip for affixation to a wall of a freight carrier, said strip including a plurality of longitudinally spaced pairs of shallow opposing corner pockets lying in a proximate substantially parallel plane.

4. Binding strap anchoring means comprising an anchoring strip for affixation to a wall of a freight carrier, said strip including a plurality of longitudinally spaced pairs of shallow opposing corner pockets, and an anchor for anchoring such strap in said corner pockets, said anchor comprising a plate of substantially rectangular shape adapted to fit in said pair of opposing pockets with an end of such strap wrapped thereabout.

5. Binding strap anchoring means comprising an anchoring strip for affixation to a wall of a freight carrier, said strip including a plurality of longitudinally spaced pairs of shallow opposing corner pockets, and an anchor for reception in a selected pair of said corner pockets, said anchor comprising a plate of substantially rectangular shape having an opening therein of a length permitting the threading of a strap therethrough.

WARREN D. HALL.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
202,963	Roop	Apr. 30, 1978
1,271,963	Vilander	July 9, 1918
1,752,199	Perthel	Mar. 25, 1930
2,226,373	Frear	Dec. 24, 1940