Sept. 29, 1931. A. COPONY 1,824,983

DECKING DEVICE

Filed May 14, 1928 2 Sheets-Sheet 1

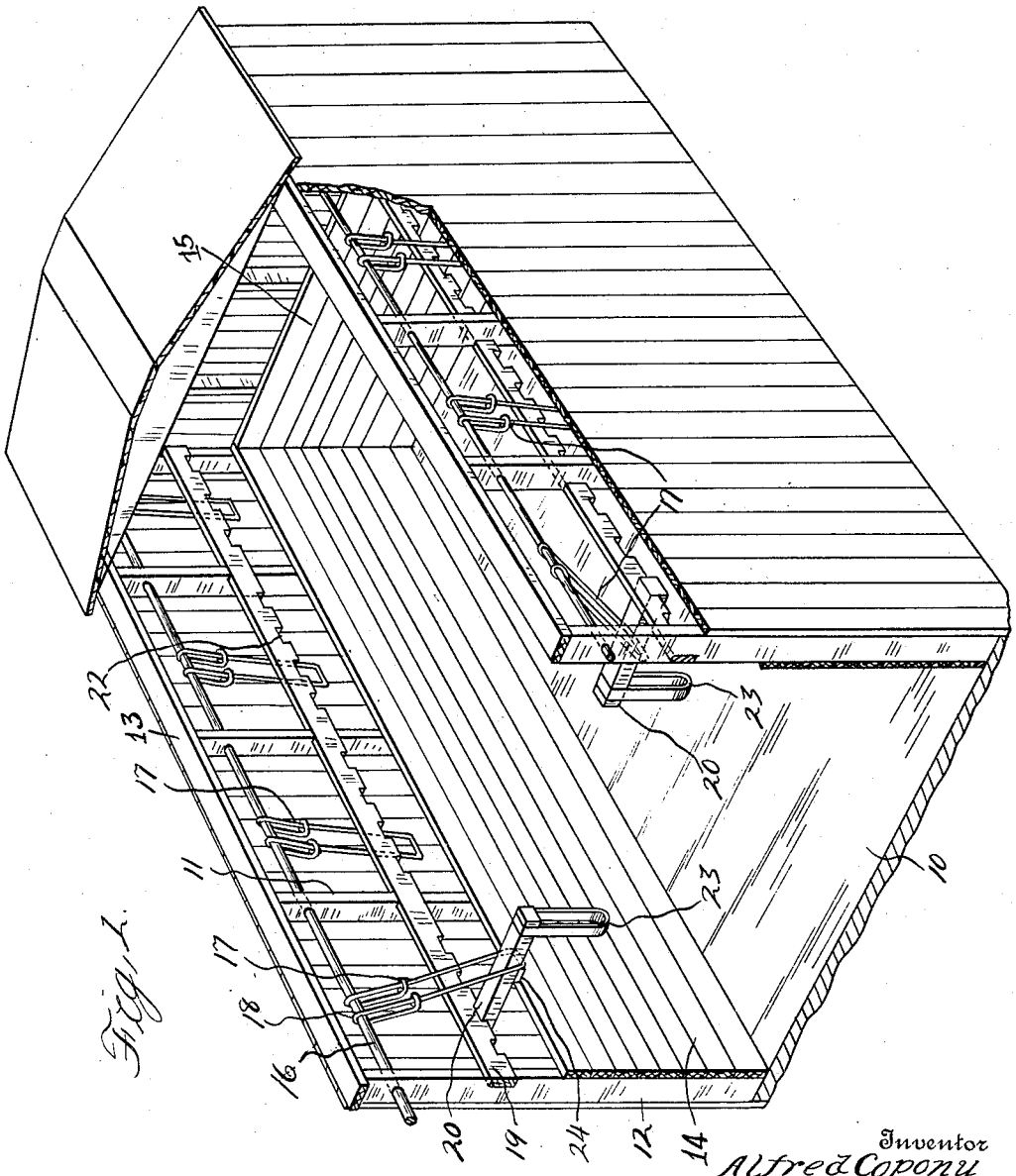


Fig. 1.

Inventor
Alfred Copony

By Whittemore Hulbert & Whittemore Belknap
Attorneys

Sept. 29, 1931. A. COPONY 1,824,983

DECKING DEVICE

Filed May 14, 1928 2 Sheets-Sheet 2

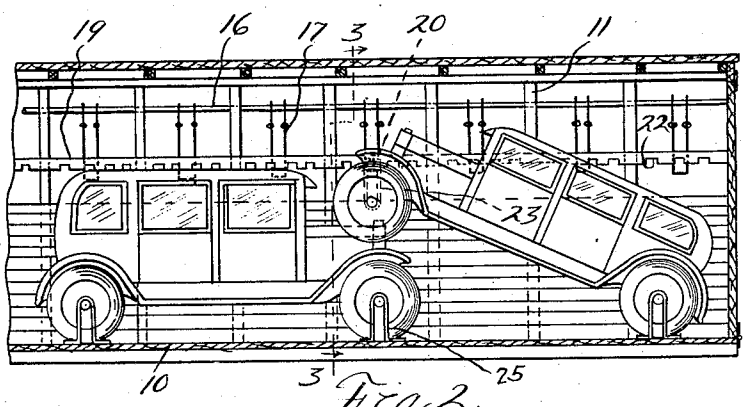


Fig. 2.

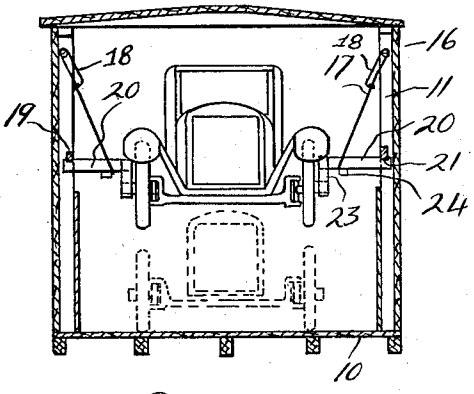


Fig. 3.

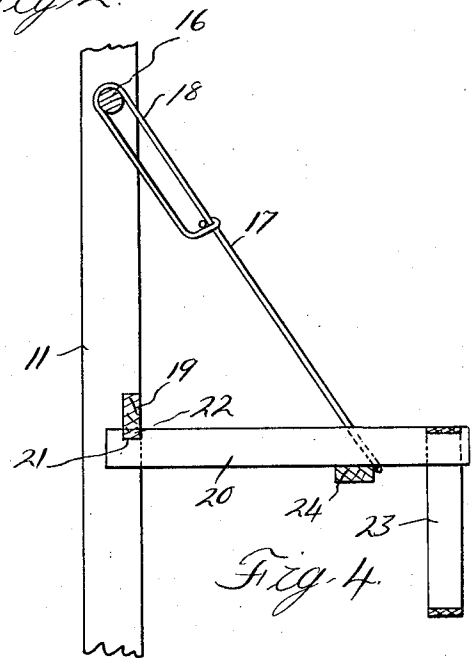


Fig. 4.

Inventor
Alfred Copony

By Whittemore Hulbert & Whittemore Belknap
Attorneys

Patented Sept. 29, 1931 1,824,983

UNITED STATES PATENT OFFICE

ALFRED COPONY, OF MOUNT CLEMENS, MICHIGAN, ASSIGNOR TO COPONY AUTO LOADING COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN

DECKING DEVICE

Application filed May 14, 1928. Serial No. 277,704.

This invention relates to decking devices and more particularly to permanent decking devices for automobiles for use in railway freight cars and the like.

One of the objects of this invention is to provide a simple, economical but efficient method and apparatus for loading such cars as automobiles and the like, the construction being particularly adaptable to half decking as distinguished from double decking employed when the cars are of such size as to permit one to be decked above the other.

Another object of the invention is to provide an apparatus of the herein described nature, the essential parts of which may be permanently associated with the railway car and may be readily brought into operative position for use in decking the vehicles.

Still another object of the invention is to provide apparatus of this nature wherein a certain flexibility in the loading of the upper wheels is permitted to thereby permit of the movement resulting from the resiliency of the tires of the lower wheels and as a consequence preventing sudden shocks being exerted upon the supporting members that might tend to disconnect the same from the car.

Various other objects, advantages and novel details of construction of this invention will be made more apparent as this description proceeds, particularly when the same is considered in connection with the accompanying drawings wherein one illustrative embodiment of the invention is shown and wherein:

Figure 1 is a fragmentary perspective view of a freight car showing my improved decking device associated therewith.

Figure 2 is a fragmentary vertical longitudinal sectional view through a conventional form of freight car showing several cars loaded therein.

Figure 3 is a vertical sectional view taken substantially on the plane indicated by line 3—3 in Figure 2 and

Figure 4 is an enlarged vertical sectional view through one of the supporting elements.

Referring now more particularly to the drawings wherein like reference characters indicate like parts, it will be noted that there is fragmentarily illustrated a conventional form of freight car including a bottom or flooring 10, side posts 11, door posts 12, side plates 13, lower sheathing 14 and end sheathing 15.

Extending longitudinally of the car at each side thereof and immediately under the side plates 13 are supporting rods 16. These supporting rods may be of tubular or solid members as desired and extend the full length of the car, crossing the tops of the door openings as clearly illustrated. These rods 16 will pass through and be supported by the side posts 11 and door posts 12 as will be obvious.

In each one of the panels between the side posts 11 I provide a hanger 17. Each hanger is formed at one end thereof with a pair of relatively large or wide eyes 18 which encircle the supporting rods 16 to pivotally or swingingly support the hanger 17 thereon. Spanning each panel is a footing strip 19. The footing strip may be formed of a continuous piece extending past and secured to the respective side posts 11 or may be composed of a plurality of short lengths with the ends thereof secured respectively to adjacent side posts. By mounting the hangers 17 on the supporting rods 16 by means of the relatively wide eyes 18 these hangers may be swung so as to position the same back of the footing strip 19 as suggested in Figure 1 so that these hangers may be located out of the way when not being used or when the car is used for other purposes.

Cooperating with the footing strips 19 are supporting beams or members 20, each of these members being provided with a notch 21 formed adjacent one end thereof adapted to engage in any one of a plurality of cut-away portions or notches 22 formed in the lower edge of the footing strip 19. In practice these supporting beams 20 will generally be furnished by the manufacturer of the automobiles being shipped. Each beam 20 is provided on the end, opposite to the notched end, with a boxing strap loop 23. Obviously these loops 23 may be made any length so as to support the end of the car the proper height from the floor 10 of the railway car. With one end of the beam engaging the foot-

ing strip 19 the other or outer end is adapted to be supported by the corresponding hanger 17, the beam extending through the hanger and being embraced by the latter as clearly illustrated in the drawings. Each of the beams is preferably formed with a stop block or abutment 24 nailed or otherwise secured to the beam 20 to prevent the hanger 17 from slipping inwardly when the device is in use.

As was previously mentioned a supporting rod 16 and a plurality of hangers 17 are provided at each side of the railway car and the position of the hanger 17 may be varied within the limits defined by the spaced side posts 11 by moving the same along the supporting rod 16; also the beams 20 may be adjusted longitudinally of the car by reason of the plurality of recesses 22 formed in the footing strip 19.

In practice chain falls usually used for lifting cars in the railway car will be hitched to one of the supports 16 at any convenient point and the front end of the automobile will be lifted up until the wheels are the necessary height above the floor. The supporting beams 20 are then engaged with properly placed hangers at both sides of the car, the notched ends are fitted into an adjacent notch 22 in the footing strip 19 and the boxing strap loops 23 of the beams 20 are fitted over the hubs of the front wheels. The chain falls are then lowered and taken off. It is then generally customary to secure by nailing the end of each beam 20 to the footing strips 19. The wheels of the automobile which are resting upon the floor 10 are secured in the customary manner as for instance by wheel block straps and tie downs 25 as suggested in Figure 2. This method of loading permits one motor end to be located above the other motor end of the next adjacent automobile and will meet the conditions of limited space satisfactorily.

A number of advantages are obtained with the use of this invention for instance there is a certain desirable flexibility in the mounting or support for each car resulting from the resiliency of the tires of the lower wheels which is permited or accommodated by the swing of the loops 23. This prevents sudden shocks on the fastening means which might disengage the same from the car or prove otherwise disasterous. In practice it has been found that in the widest railway cars the length of the beams 20 do not exceed approximately two feet and as the leverage is approximately two to one a standard 2 x 4 strip of lumber will be sufficient to support the heaviest of cars. When it is necessary to deck a vehicle adjacent the door opening temporary strips corresponding with footing strips 19 may be secured in place in the door openings and hangers may be attached to the supporting rods 16 already in place.

While one embodiment of this invention has been described and illustrated herein somewhat in detail it will be readily apparent to those skilled in this art that many changes in the essential and all of the non-essential details of the invention may be resorted to without departing from the spirit and scope of this invention and to this end reservation is made to make such changes as may come within the purview of the accompanying claims.

What I claim as my invention is:

1. In a decking device, a supporting rod, a footing strip arranged in spaced relation to said supporting rod, and a hanger slidably carried by said supporting rod for movement to positions on opposite sides of said footing strip and for movement longitudinally of said rod.

2. A decking device including in combination a supporting rod, a footing strip spaced from said supporting rod, a hanger pivotally and slidably carried by said supporting rod, and a beam adapted to be secured to the said footing strip and to be braced by the said hanger.

3. A decking device for vehicles including in combination a footing strip, the said footing strip being provided with a plurality of notches, and a supporting beam adapted to be secured to the said footing strip to project at right angles to the same, the said supporting beam being notched to engage the notches of the said footing strip.

4. In a vehicle decking device including in combination a footing strip provided with a plurality of longitudinally spaced notches, a supporting beam adapted to be secured to the said footing strip, the said supporting beam being notched to engage the notches of the footing strip, and means for bracing the said supporting beam.

5. In a vehicle decking device including in combination a footing strip provided with a plurality of longitudinally spaced notches, a supporting beam adapted to be secured to the said footing strip in the notches thereof, and means for bracing the said supporting beam, said means including a supporting rod secured in spaced relation to the said footing strip, and a hanger carried by the said supporting rod for engagement with the said supporting beam.

6. In a decking device for vehicles including in combination a footing strip, a supporting beam secured to the said footing strip and projecting at right angles to the same, and a flexible member carried by the free end of the said supporting beam, the said flexible member being adapted for engagement with the hub of a vehicle wheel to support the same.

7. In a decking device for vehicles including in combination a footing strip provided with a plurality of longitudinally spaced notches, a supporting beam adapted to be se-

cured to the said footing strip to project at right angles to the same and engaging a notch therein, a supporting rod secured in spaced relation to the said footing strip, a hanger carried by the said supporting rod and adapted to engage the said supporting beam to brace the same, and a flexible member carried by the free end of the said supporting beam for engagement with a vehicle wheel.

8. The combination with a freight car of a vehicle decking device including in combination a supporting rod arranged longitudinally of the said car adjacent the side thereof, a footing strip arranged longitudinally of the car adjacent the side thereof and in spaced relation to the said supporting rod, a beam engageable with the footing strip, and a hanger carried by the said supporting rod, the said hanger being movable to a position between the said footing strip and the side of the car and being adjustable longitudinally of the rod for engagement with the said beam.

9. In a vehicle decking device, a footing strip, a supporting beam adapted for engagement with the said footing strip and for adjustment longitudinally thereof, and means for bracing the supporting beam.

10. In a vehicle decking device, a footing strip, a supporting beam adapted for engagement with the said footing strip and adjustable longitudinally thereof, a rod arranged parallel to said footing strip and in spaced relation thereto, and a hanger adjustably mounted on said rod and engageable with said beam for bracing the same.

In testimony whereof I affix my signature.

ALFRED COPONY.