

United States Patent

Harris

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[45] Dec. 12, 1972

[54] CARPET ROLL CARRIER ATTACHMENT

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[52] U.S. Cl. **214/620, 214/DIG. 3**

[51] Int. Cl. **B66f 9/12**

[58] Field of Search 214/620, 621, 130 C, DIG. 1,
214/DIG. 3, DIG. 4

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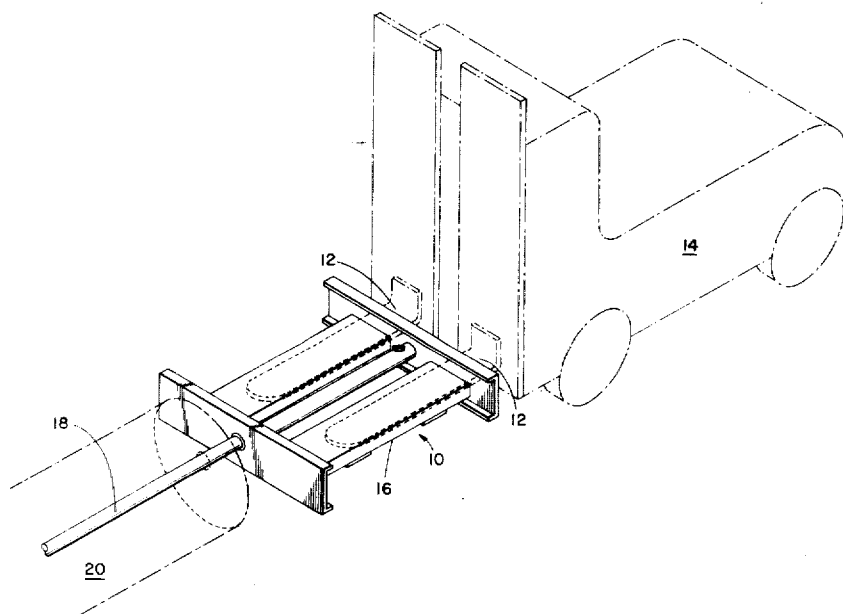
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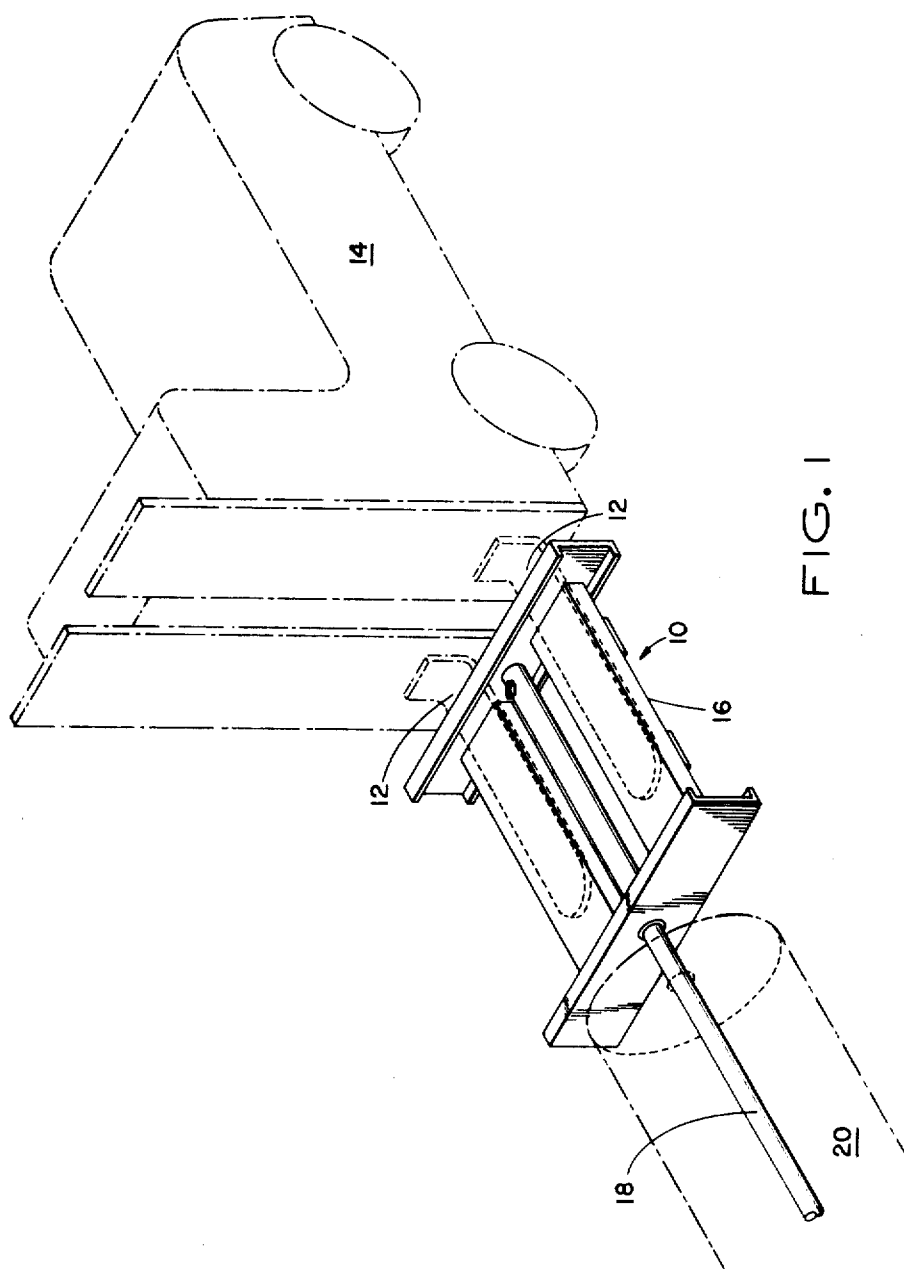
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[57] ABSTRACT

A device for use in attaching a carpet rod to a transport vehicle having forks, characterized by the use of a frame which has socket means into which the forks of the transport vehicle can be horizontally positioned so that the device can be supported by and retained on the forks of the transport vehicle while the carpet rod is inserted into the center of a carpet roll and used to lift and transport the carpet roll.

1 Claim, 6 Drawing Figures

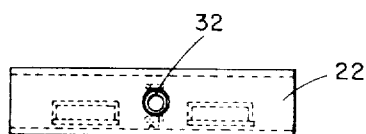
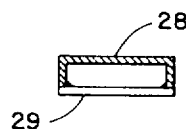
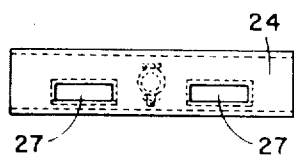
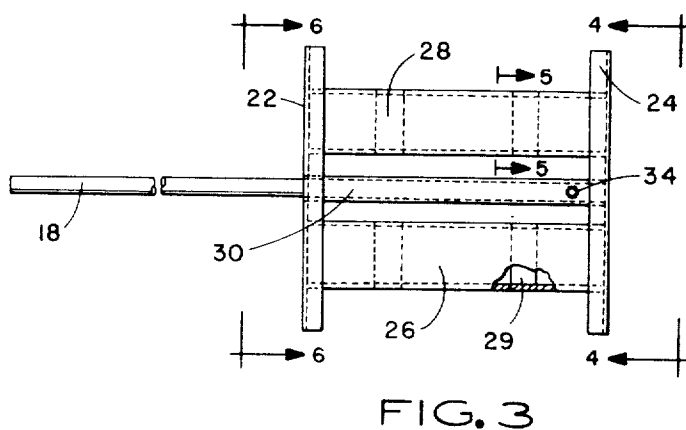
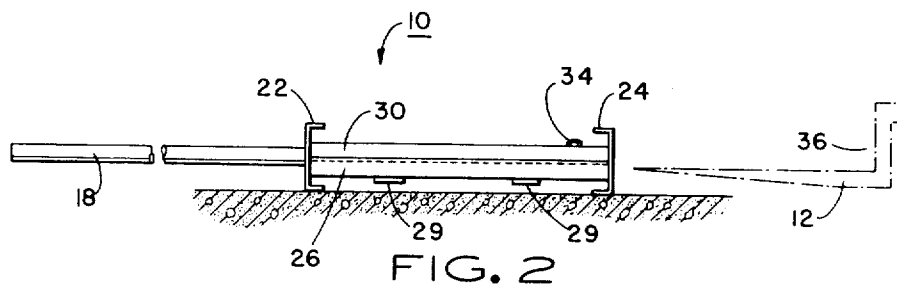




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SHEET 2 OF 2



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CARPET ROLL CARRIER ATTACHMENT

BACKGROUND OF THE INVENTION

The present invention relates to attachments for use with transport vehicles, and more particularly to an attachment device which may be removably attached to the forks of a transport vehicle so that the forks of the vehicle may be utilized without the attachment device thereon.

DESCRIPTION OF THE PRIOR ART

In the handling of large cylindrical rolls of carpet and other material, it has been a common practice to utilize a special attachment to transport vehicles which is in the form of a long horizontal carpet rod or shaft which can be inserted through the center of the roll so that the roll may be lifted and moved from the end. This elongated carpet rod presents substantial advantages in that it allows the carpet rolls to be easily moved into and out of narrow spaces such as truck beds where insufficient space is available to approach the carpet roll with a transport vehicle from the side. Although such devices have served the purpose, they have not proved entirely satisfactory under all conditions of service because of the inability of a transport vehicle to utilize its forks to lift pallets or carpets from the side when the carpet rod device is attached thereto. To solve this problem, the operator of the transport vehicle was forced to dismount and manually remove the carpet rod device to utilize the forks of the transport vehicle and to then manually reattach the device when it was required to move a carpet roll from the end.

SUMMARY OF THE INVENTION

The general purpose of this invention is to provide a carpet rod attachment device which can be quickly and easily attached to and detached from the forks of a transport vehicle without requiring manual operations and without the operator having to dismount the vehicle.

OBJECTS OF THE INVENTION

An object of the present invention is the provision of an attachment device which can be quickly and easily attached to the forks of a transport vehicle.

Another object is to provide an attachment device which is simple and inexpensive to manufacture.

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects and many attendant advantages of the invention will be readily appreciated as the same become better understood by reference to the following detailed description when considered in connection with the accompanying drawings which illustrate a preferred embodiment of the invention and wherein:

FIG. 1 illustrates a perspective view of the attachment device showing its attachment to the front of a conventional fork truck;

FIG. 2 illustrates a side elevation view of the attachment device in combination with a conventional fork;

FIG. 3 is a plan view of the attachment device shown in FIG. 2;

FIG. 4 is a view taken in the direction of the arrows 4-4 in FIG. 3;

FIG. 5 is an enlarged partial section of the device taken on line 5-5 of FIG. 3; and

FIG. 6 is a view taken in the direction of the arrows 6-6 in FIG. 3.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, wherein like reference characters designate like or corresponding parts throughout the several views, there is shown in FIG. 1 an embodiment of the attachment device 10 of the present invention attached to the forks 12 of a transport vehicle 14 (shown in phantom lines). This attachment device 10 has a body portion 16 with a carpet rod 18 extending horizontally therefrom. As can be seen, this rod 18 can be inserted into the center of a carpet roll 20 (shown in phantom lines), so that the roll 20 may be lifted and moved by the transport vehicle.

Referring now to the remaining figures, the detailed construction of the attachment device 10 can be seen as having front and rear end pieces 22 and 24, respectively. In the present invention, these two end pieces are constructed from material having a channel shaped cross section with their concave portions facing each other, and are attached to and rigidly held in parallel spaced relationship by two side members, 26 and 28. These two side members are made from material with a channel shaped cross section having their concave portions directed downward and are positioned in parallel arrangement and separated a sufficient distance so that the forks of the transport vehicle may be inserted through two rectangular openings 27 provided in the rear end pieces 24 and thereafter into the concave portions of the side members, 26 and 28. A plurality of strap members 29 are attached across the bottom of the concave portion of the channel members, 26 and 28, as shown in FIG. 5.

A tube 30 is centrally positioned between the two side members, 26 and 28, and is attached by suitable means such as welding to the end pieces 22 and 24. Referring now to FIG. 6, an opening 32 is provided in the front end piece 22 in alignment with the hollow center of the tube 30. This tube 30 is of such a size as to allow the carpet rod 18 to be axially moved into the hollow center portion thereof and is held in place by a nut and bolt assembly 34 which is positioned through aligned radial bores (not shown) in the carpet rod 18 and tube 30. By attaching the rod 18 to the body in this manner, carpet rods of differing lengths may be used with the same assembly. It is also contemplated that the carpet rod 18 could have a threaded portion on the end thereof to allow the attachment of extensions thereon to extend the length of the carpet rod 18 for use with carpet rolls of longer length.

OPERATION OF THE DEVICE

By referring to FIG. 2, the operation of the attachment device 10 can be explained. As shown, when the carpet device 10 is not in use, it can be stored on a horizontal surface such as the floor. To attach the device 10 to a transport vehicle 14, the forks 12 are initially horizontally positioned in alignment with the openings 27. The vehicle is then moved forward so that the forks 12 are inserted through the openings 27 and into the concave portion of the side members 26 and 28

until the rear end piece 24 abuts the vertical portion 36 of the forks 12, or the end of the forks 12 contact the front end piece 22. With the forks 12 so positioned in the concave portions of the side members 26 and 28, the attachment device 10 can then be lifted by raising the forks 12, the strap members 28 holding the fork in the concave portions.

Turning now to FIG. 1, it can be seen that once the device 10 is attached to the transport vehicle 14, the carpet rod 18 can be vertically positioned by the transport vehicle and inserted in the center of a carpet roll 20 so that the roll 20 may then be lifted and transported as required.

To remove the attachment device 10 from the vehicle 14, the above described process is reversed by lowering the device 10 to a horizontal surface and backing the vehicle 14 away to remove the forks 12 from the concave portions of the side members 26 and 28 and thus allowing the forks to be utilized without the attachment device thereon.

It can be seen from the above that the device may be easily and quickly attached to and detached from a vehicle without the operator leaving the vehicle. It should be understood, of course, that the foregoing disclosure relates to only a preferred embodiment of the invention and that numerous modifications or alterations may be made therein without departing from the spirit and scope of the invention as set forth in the appended claims.

I claim:

1. A hollow centered cylindrical roll loading, transporting, and unloading device for removably attaching to a transport vehicle having vertical movable forks so

that the said device is carried by and moved with said forks, comprising:

a body of rigid material comprising: two plates positioned in spaced parallel relationship, two channel members having concave portions with their ends attached to said plates to form a rigid structure, said channel members being positioned in space parallel in relationship and of such a size as to allow insertion of said forks into said concave portion of said channel members, one of said plates having openings therethrough aligned with the concave portions of said channel members and being of a size to allow insertion of said forks therethrough, tube means attached to and extending between said plates, said other plate having a circular opening axially aligned with the hollow center said tube means, and strap means fixed across said concave portions of said channel members for retaining said forks therein,

rod means of rigid material positioned with one end axially inserted through said circular openings in said other plate and axially into said tubing, the other end of said rod means extending from said circular opening a sufficient distance to allow the insertion of said other end into the hollow center of said roll so that said roll can be lifted and transported by said vehicle,

means for removably retaining said rod in said tube, comprising, said rod and said tube having axially aligned bores therethrough at substantially right angles to their axis and fastener means mounted in said bores so that said rod will be prevented from axially sliding in said tube.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,705,658 Dated December 12, 1972

Inventor(s) Hugh A. Harris

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Claim 1: Column 3, Line 34, "vertical" should read --vertically--;
 Column 4, Line 14, before "tube" insert --hollow--;
 Column 4, Line 17, after "center" insert --of--;
 Column 4, Line 21, "openings" should read --opening--;
 Column 4, Line 22, "tubing" should read --tube means--;
 Column 4, Line 31, "axis" should read --axes--.

Signed and sealed this 23rd day of April 1974.

(SEAL)
Attest:

EDWARD M. FLETCHER, JR.
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents