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(54) **A PLATFORM CONTAINER FOR THE TRANSPORTATION OF CYLINDER-SHAPED CARGO**

PLATTFORMBEHÄLTER ZUM TRANSPORT VON ZYLINDERFÖRMIGER FRACHT

CONTENEUR EN FORME DE PLATEFORME DESTINE AU TRANSPORT DE MARCHANDISES
CYLINDRIQUES

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Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to a large container, and in particular to a platform container for carrying large columned cargos, such as logs.

2. The Related Art

[0002] Human being needs lignums more and more with the development of the global economy. However, the raw material of the lignums are mostly distributed in alp and forest, so that it is always need conveyance to carry those raw materials to machining ground to be machined. As the log is large and columned, if we use a common conveyance to carry the log, it will cost a lot of money and also the efficiency is very low. The loading, unloading and fastenting of the log from a common vehicle or container is very difficult since the common vehicle or container is not designed specially for carrying the log. Especially, out of doors, a container which is full of the logs is not easy to be loaded or unloaded if it doesn't cooperate with an equipment which is specially for loading and unloading.

[0003] Furthermore, other large columned cargos, such as the steel tube and the plastic tube, and so on, are also faced how to be carried to building site and how to be loaded, unloaded and fastened out of doors.

[0004] Accordingly, it is necessary to develop a conveyance equipment to carry the large columned cargos so as to resolve such described problems.

[0005] WO 2004/013006 discloses a pallet having two side rails which are parallel to each other. The pallet further comprises a plurality of cross beams attached each of the side rails.

SUMMARY OF THE INVENTION

[0006] According to the present invention, a platform container as claimed in claim 1 is provided. The sub-claims describe some examples for such a platform container.

[0007] The main purpose of the present invention is to provide a platform container for carrying large columned cargos which has a guiding structure under the bottom of the platform to match a roll guide, this can be adapted for dragging the platform container from one trailer or rail wagon to another trailer by using the roll guide.

[0008] Another purpose of the present invention is to provide a platform container for carrying large columned cargos whose cross member's top surface overtops the top surface of the side rail so that the loading and unloading equipment (such as a forklift) or lashing straps can pass through the bottom of the logs or other large columned cargos easily. Therefore, it is convenient to

load and unload the cargos or fix the cargos. And the cargos can be easily loaded on a trailer or unloaded from the trailer without cooperating with an equipment which is specially for loading and unloading.

[0009] In order to achieve such aims, the design of the present invention will be described in the follow paragraphs.

[0010] A platform container for carrying large columned cargos comprises two bottom side rails parallel to each other, a plurality of bottom cross members provided between the two bottom side rails, and two end sills disposed to the ends of the two bottom side rails. A platform for loading cargos is formed by the bottom side rails, the bottom cross members and the end sills, and a recess is provided on the bottom surface of the joint part of the bottom cross members where the bottom cross members join the bottom side rails.

[0011] The bottom cross members comprises a plurality of upper bottom cross members which are fastened on the upper portions of the inner sides of the two bottom side rails and a plurality of lower bottom cross members which are fastened on the lower portions of the inner sides of the two bottom side rails, the top surface of the upper bottom cross member overtops the top surface of the bottom side rail, and the bottom surface of the lower bottom cross member is even with the bottom surface of the bottom side rail.

[0012] The upper bottom cross member and the lower bottom cross member are staggered.

[0013] The length of the portion of the upper bottom cross member which overtops the bottom side rail is a little less than the distance between the bottom surfaces of the two bottom side rails.

[0014] The platform container for carrying large columned cargos further comprises a plurality of stanchions which are mounted on the two sides of the platform and can be folded inwards.

[0015] The stanchion comprises stanchion body which is hollow, a hinge with which one end of the stanchion body joins the bottom side rail, and a securing bolt. The securing bolt comprises a bolt retainer mounted on the stanchion body, a bolt installed in the bolt retainer, and a bolt hole which is located on the bottom side rail and matches the bolt. The stanchion body turns upright and outwards, the bolt inserts into the bolt hole and the stanchion body will be fixed on the bottom side rail and keeps a certain erection state, when the stanchion body is folded downwards and inwards, the bolt is drawn out from the bolt hole, and the stanchion body rotates inwards to parallel the bottom cross member and is received in the space of the platform.

[0016] The stanchions are staggered with each other and also staggered with the bottom cross members.

[0017] The platform container for carrying large columned cargos further comprises a plurality of support legs which are installed on the platform and can be folded.

[0018] The support leg comprises a transverse support leg, a vertical support leg and a diagonal support bar.

The transverse support leg and the vertical support leg are fixed together in a "L" shape. A support leg hole is formed in the bottom side rail to receive the transverse support leg. The transverse support leg can be retracted and rotated in the support leg hole. One end of the diagonal support bar joins the bottom side rail with a hinge, and the other end of the diagonal support bar which has a hinge hole joins a hinge retainer which is mounted on the vertical support leg by inserting a hinge pin into the hinge hole.

[0019] The section of the vertical support leg is canular. An inner vertical support leg is received in the vertical support leg and can be retracted in the vertical support leg.

[0020] The platform container for carrying large columned cargos further comprises an end wall which is mounted on the end of the platform and can be folded inwards.

[0021] The width of the end wall is a little less than the distance between the bottom surfaces of the two bottom side rails.

[0022] For the present invention utilizes such described structure, when the platform container is loaded with large columned cargos such as logs, the stanchions and the end walls turn vertically to form a good container to load the cargos and prevent the cargos falling off.

[0023] As the top surface of the cross member overlaps the top surface of the side rail, the loading and unloading equipment (such as a forklift) or cord can pass through the bottom of the large columned cargos easily. Therefore, it is convenient to fix the cargos or load and unload the cargos.

[0024] When the vertical support legs are in a vertical state, the whole platform container and the cargos are supported by the vertical support legs. The chassis of a trailer can insert into the bottom of the platform container easily. And then, make the vertical support legs being in a folded state. The platform container is carried away by the trailer. When the trailer arrives at the destination, the vertical support legs turn vertically and the platform container with the cargos are supported by the vertical support legs. The chassis of the trailer is drawn out from the bottom of the platform container without other large equipment which is for loading and unloading. In a word, the platform container for carrying large columned cargos of the present invention has a function of rising up and down automatically.

[0025] All the stanchions and the end walls are folded inwards after the cargos are offloaded from the platform container. Several platform containers are stacked and then carried back to the start position by one trailer. It cut down the cost of carrying empty platform containers greatly.

[0026] Moreover, a guiding structure matching a roll guide is formed on the bottom of the platform container in order to be adapted for dragging the platform container from one trailer or train to another trailer by using the roll guide.

[0027] As described hereinabove, the present invention make that it is convenient to carry logs and other columned large cargos and cut down the cost of the transportation greatly.

BRIEF DESCRIPTION OF THE DRAWINGS

[0028] The exact nature of this invention, as well as other objects and advantages thereof, will be readily apparent from consideration of the following specification relating to the accompanying drawings, in which like reference characters designate the same or similar parts throughout the figures thereof and wherein:

[0029] FIG. 1 is a perspective view of the platform container of the present invention in a working state and shows that the platform container is loading without the logs;

[0030] FIG. 2 is another perspective view of the platform container of the present invention in a working state and shows that the platform container is loaded with a lot of logs;

[0031] FIG. 3 is a perspective view of the platform container of the present invention in a folded state;

[0032] FIG. 4 is a side plane view of the platform container of the present invention in a working state;

[0033] FIG. 5 is a view of the platform container of the present invention showing a recess provided on the joint of the lower cross member and the side rail;

[0034] FIG. 6 is a view of the stanchion of the platform container and shows the stanchion is in a working state;

[0035] FIG. 7 is a view of the stanchion in a folded state;

[0036] FIG. 8 is a view of the support leg of the platform container and shows the support leg is in a working state; and

[0037] FIG. 9 is a view of the support leg in a folded state.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0038] Detailed description will hereunder be given of the preferred embodiment of a platform container for carrying columned large cargos according to the present invention with reference to the accompanying drawings.

[0039] Please refer to FIG. 1. A platform container 1 for carrying large columned cargos according to the present invention comprises two bottom side rails 16 parallel to each other, a plurality of upper cross members 14 and a plurality of lower cross members 15 provided between the inner sides of the two bottom side rails 16, and two end sills disposed to the ends of the two bottom side rails. The upper cross members 14 and the lower cross members 15 are defined on the upper portion of the inner sides of the two bottom side rails 16 and the lower portion of the inner sides of the two bottom side rails 16 respectively. The two bottom side rails 16, the upper cross members 14, the lower cross members 15 and the two end sills 17 are assembled together to form

a platform to load cargos. A plurality of stanchions 11 which can be folded are mounted on the two sides of the platform to fasten the cargos. One or two end walls 12 is formed on the ends of the platform to fasten the cargos. A plurality of support legs 13 which can be folded are mounted on the platform, such that the platform container 1 can be easy loaded and unloaded from a trailer. The top surface of the upper cross member 14 overtops the top surface of the side rail 16.

[0040] The FIG.2 shows that the platform container 1 is in a working state. The platform container 1 is loaded with a lot of logs 2. The logs 2 are placed on the upper cross members 14. The stanchions 11 and the end walls 12 stretch up so as to form a receiving space. The two pairs of support legs 13 stretch out to support the whole platform container 1. As the top surface of the upper cross member 14 overtops the top surface of the side rail 16 so that the forklift or cord can pass through the bottom of the logs 2 easily when the logs are placed on the upper cross members 14. Therefore, it is convenient to load, unload and fasten the cargos. When the platform container 1 is full of the logs 2, the chassis of the trailer (not shown in the FIGS) extends under the bottom of the platform container 1, and the support legs 13 become telescoped and folded. And then, the whole platform container 1 which is full of logs 2 is placed on the chassis of the trailer. When the logs 2 are carried to the destination, the support legs 13 stretch out and become elongated to support the platform container 1 so as to make the bottom of the platform container 1 is off the chassis of the trailer. And then, the platform container 1 and the logs 2 will be offloaded from the trailer.

[0041] When the logs 2 are offloaded from the platform container 1, the stanchions 11, the end walls 12 and the support legs 13 will be folded so that the whole platform container 1 is in a folded state as shown in FIG.3

[0042] As the top surface of the upper cross member 14 overtops the top surface of the side rail 16, moreover, the lower cross members 15 and the upper cross members 14 are staggered in the direction of the length of the platform container 1, so that if there are two or more platform containers 1 need to be stacked, the overtopped portion of the upper cross member 14 of the lower platform container will be hid in the bottom of the upper platform container with on influence to the stack of the platform containers.

[0043] FIG.4 is side plane view of the platform container 1 according to the present invention. It can be seen that the top surface of the upper cross member 14 is higher than the top surface of the side rail 16 evidently.

[0044] As shown in FIG.5, the bottom surface of the lower cross member 15 is even with the bottom surface of the side rail 16 so that the structure of the platform container 1 is firm. Moreover, the load of the platform container 1 can be distributed to the ground or chassis of the trailer through the lower cross member 15. A recess 151 is provided on the lower cross member 15 where the lower cross member joins the side rail 16. The length of

the recess 151 is at least 150mm and the high of the recess 151 is at least 100mm, such that the platform container is adapted for being guided by the recess 151 along the roll guide when the platform container 1 is dragged from a trailer or train to another trailer through the roll guide.

[0045] FIG.6 is a view of the stanchion 11 in a working state and FIG.7 is a view of the stanchion 11 in a folded state. The two FIGS show the detailed structure of the stanchion 11 clearly.

[0046] The stanchion 11 comprises a stanchion body 111, a hinge and a securing bolt. The section of the stanchion body 111 is hollow. The hinge comprises a hinge pin 113 and a hinge retainer 112. The stanchion body 111 joins onto the hinge retainer 112 with the hinge pin 113. The hinge retainer 112 joins the side rail 16 by solder. A securing bolt comprises a bolt retainer 114, a bolt 116 and a bolt hole 117. The bolt retainer 114 is fixed onto the stanchion body 111 with the screws 115. The bolt 116 is installed in the bolt retainer 114. The bolt hole 117 is defined in the side rail 16 to mate with the bolt 116.

[0047] As shown in FIG.6, when the stanchion 11 is in a working state, the stanchion 11 stretches upwardly. And the stanchion 11 will keep vertical by inserting the bolt 116 into the bolt hole 117.

[0048] As shown in FIG.7, when the stanchion 11 needs to be folded, we can draw out the bolt 116 from the bolt hole 117, and then rotate the stanchion body 111 to parallel the upper cross members 14. At that time, the stanchion 11 is folded and the platform container can be stacked.

[0049] FIG.8 is a view of the support leg 13 in a working state and FIG.9 is a view of the support leg 13 in a folded state. The two FIGS show the detailed structure of the support leg 13 clearly.

[0050] The support leg 13 comprises a transverse support leg 131, a vertical support leg 132 and a diagonal support bar 135. The transverse support leg 131 and the vertical support leg 132 are fixed together in a "L" shape. A support leg hole 137 is formed in the side rail 16 to receive the transverse support leg 131. The transverse support leg 131 can be retracted and rotated in the support leg hole 137. That is to say, the transverse support leg 131 can be telescoped in the direction of the width of platform container 1. An inner vertical support leg 133 is received in a cavity of the vertical support leg 132, and the inner vertical support leg 133 can be retracted so as to adjust the height of the vertical support leg 132. Because of that, the distance between the bottom of the platform container 1 and the ground can be adjusted in a certain range. One end of the diagonal support bar 135 joins the side rail 16 with a hinge. A hinge hole 136 is provided on the other end of the diagonal support bar 135. A hinge retainer 134 is formed on the vertical support leg 132. The other end of the diagonal support bar 135 joins the hinge retainer 134 by inserting a hinge pin 138 into the hinge hole 136 and the hinge retainer 134..

[0051] As shown in FIG.1, FIG.2, FIG.4, and FIG.8,

when the platform container 1 is full loaded with the cargos but not on the trailer, the transverse support leg 131 inserts into the support leg hole 137 and the vertical support leg 132 keeps vertical. At the same time, one end of the diagonal support bar 135 joins the side rail 16 with a hinge, and the other end of the diagonal support bar 135 joins the hinge retainer 134 which is defined on the vertical support leg 132 with a hinge pin 138. For that arrangement, the platform of platform container 1 will be supported by plenty of such support legs 13. The angle between the support leg 13 and the side rail 16 is more than 90 degrees so that the diagonal support bar 135 receives a pull all the time when it is in a working state.

[0052] As shown in FIG.3 and FIG.9, if the platform container 1 wants to be folded and stacked, the hinge pin 138 will be drawn out from the hinge hole 136. The transverse support leg 131 will be retraced and rotated in the support leg hole 137. The inner vertical support leg 133 is received in the cavity of the vertical support leg 132. The vertical support leg 132 and the diagonal support bar 135 are received in the cavity of the side rail 16. At this time, the platform container 1 is folded. The any portion's width of the platform container 1 in such a state is not more than the largest width of the two ends so that it is convenient to stack the platform container 1.

[0053] It is to be understood, however, that even though numerous, characteristics and advantages of the present invention have been set forth in the foregoing description, together with details of the structure and function of the invention, the disclosed is illustrative only, and changes may be made in detail, especially in matters of shape, size, and arrangement of parts within the principles of the invention to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed.

Claims

1. A platform container for carrying large columned cargos, comprising:

two bottom side rails (16) which are parallel to each other;
a plurality of bottom cross members (14, 15) provided between said two bottom side rails (16); and
two end sills (17) disposed to the ends of said two bottom side rails (16);
wherein a platform for loading cargos is formed by said bottom side rails (16), said bottom cross members (14, 15) and said end sills (17),

characterized in that

a recess (151) for guiding the platform container (1) along a roll guide when the platform container (1) is dragged from a trailer or train to another trailer through the roll guide is provided on the bottom surface of the joint part of said bottom

cross members (14, 15) where said bottom cross members (14, 15) join said bottom side rails (16).

2. The platform container for carrying large columned cargos as claimed in claim 1, wherein said bottom cross members (14, 15) comprises a plurality of upper bottom cross members (14) which are fastened on the upper portions of the inner sides of said two bottom side rails (16) and a plurality of lower bottom cross members (15) which are fastened on the lower portions of the inner sides of said two bottom side rails (16), the top surface of said upper bottom cross member (14) overtops the top surface of said bottom side rail (16), the bottom surface of said lower bottom cross member (15) is even with the bottom surface of said bottom side rail (16).
3. The platform container for carrying large columned cargos as claimed in claim 2, wherein said upper bottom cross member (14) and said lower bottom cross member (15) are staggered.
4. The platform container for carrying large columned cargos as claimed in claim 2, wherein the length of the portion of said upper bottom cross member (14) which overtops said bottom side rail (16) is a little less than the distance between the bottom surfaces of said two bottom side rails (16).
5. The platform container for carrying large columned cargos as claimed in claim 1, further comprising a plurality of stanchions (11) which are mounted on the two sides of said platform and can be folded inwards.
6. The platform container for carrying large columned cargos as claimed in claim 5, wherein said stanchion (11) comprises:
 - a stanchion body (111) which is hollow;
 - a hinge, with which one end of said stanchion body (111) joins said bottom side rail (16); and
 - a securing bolt, comprising
 - a bolt retainer (114) mounted on said stanchion body (111),
 - a bolt (116) installed in said bolt retainer (114), and
 - a bolt hole (117) which is located on said bottom side rail (16) and matches said bolt (116);
 when said stanchion body (111) turns upright and outwards, said bolt (116) inserts into said bolt hole (117) and said stanchion body (111) will be fixed on said bottom side rail (16) and keeps a certain erection state; when said stanchion body (111) is folded downwards and inwards, said bolt is drawn out from said bolt hole (117), said stanchion body (111) rotates inwards

to parallel said bottom cross member (14, 15)
and is received in the space of said platform.

7. The platform container for carrying large columned
cargos as claimed in claim 5, wherein said stan- 5
chions (11) are staggered with each other and also
staggered with said bottom cross members (14, 15).
8. The platform container for carrying large columned
cargos as claimed in claim 1, further comprising a 10
plurality of support legs (13) which are installed on
said platform and can be folded.
9. The platform container for carrying large columned
cargos as claimed in claim 8, wherein said support 15
leg (13) comprises a transverse support leg (131), a
vertical support leg (132) and a diagonal support bar
(135); said transverse support leg (131) and said ver-
tical support leg (132) are fixed together in a "L"
shape; a support leg hole (137) is formed in said 20
bottom side rail (16) to receive said transverse sup-
port leg (131); said transverse support leg (131) can
be retracted and rotated in said support leg hole
(137); one end of said diagonal support bar (135)
joins said bottom side rail (16) with a hinge, and the 25
other end of said diagonal support bar (135) which
has a hinge hole (136) joins a hinge retainer (134)
which is mounted on said vertical support leg (132)
by inserting a hinge pin (138) into said hinge hole
(136) and said hinge retainer (134). 30
10. The platform container for carrying large columned
cargos as claimed in claim 9, wherein the section of
said vertical support leg (132) is cannular; an inner
vertical support leg (133) is received in said vertical 35
support leg (132) and can be retracted in said vertical
support leg (13).
11. The platform container for carrying large columned
cargos as claimed in claim 1, further comprising an 40
end wall which is mounted on the end of said platform
and can be folded inwards.
12. The platform container for carrying large columned
cargos as claimed in claim 11, wherein the width of 45
said end wall is a little less than the distance between
the bottom surfaces of said two bottom side rails (16).

Patentansprüche 50

1. Plattformbehälter zum Transportieren von großen
säulenförmigen Frachtgütern, aufweisend:

zwei Bodenseitenträger (16), die parallel zuein- 55
ander sind,
eine Mehrzahl von Bodenquerelementen (14,
15), die zwischen den zwei Bodenseitenträgern

(16) vorgesehen sind, und
zwei Endschweller (17), die an den Enden der
zwei Bodenseitenträger (16) angeordnet sind,
wobei eine Plattform zum Laden von Frachtgü-
tern durch die Bodenseitenträger (16), die Bo-
denquerelemente (14, 15) und die Endschweller
(17) ausgebildet ist,

dadurch gekennzeichnet, dass

eine Aussparung (151) zum Führen des Platt-
formbehälters (1) entlang einer Rollführung,
wenn der Plattformbehälter (1) von einem Auf-
lieger oder einem Zug zu einem anderen Auf-
lieger durch die Rollführung geschleppt wird, an
der unteren Fläche des Anschlussteils der Bo-
denquerelemente (14, 15) vorgesehen ist, wo
die Bodenquerelemente (14, 15) an den Boden-
seitenträgern (16) angeschlossen sind.

2. Plattformbehälter zum Transportieren von großen
säulenförmigen Frachtgütern gemäß Anspruch 1,
wobei die Bodenquerelemente (14, 15) eine Mehr-
zahl von oberen Bodenquerelementen (14), die an
den oberen Abschnitten der Innenseiten der zwei
Bodenseitenträger (16) befestigt sind, und eine
Mehrzahl von unteren Bodenquerelementen (15)
aufweisen, die an den unteren Abschnitten der In-
nenseiten der zwei Bodenseitenträger (16) befestigt
sind, wobei die obere Fläche des oberen Bodenque-
relementes (14) die obere Fläche des Bodenseiten-
trägers (16) überragt und die untere Fläche des un-
teren Bodenquerelementes (15) in einer Ebene mit
der unteren Fläche des Bodenseitenträgers (16) ist.
3. Plattformbehälter zum Transportieren von großen
säulenförmigen Frachtgütern gemäß Anspruch 2,
wobei das obere Bodenquerelement (14) und das
untere Bodenquerelement (15) versetzt sind.
4. Plattformbehälter zum Transportieren von großen
säulenförmigen Frachtgütern gemäß Anspruch 2,
wobei die Länge des Abschnitts des oberen Boden-
querelements (14), der den Bodenseitenträger (16)
überragt, etwas geringer ist als der Abstand zwi-
schen den unteren Flächen der zwei Bodenseiten-
träger (16).
5. Plattformbehälter zum Transportieren von großen
säulenförmigen Frachtgütern gemäß Anspruch 1,
der ferner eine Mehrzahl von Haltestangen (11) auf-
weist, die an den zwei Seiten der Plattform befestigt
sind und nach innen geklappt werden können.
6. Plattformbehälter zum Transportieren von großen
säulenförmigen Frachtgütern gemäß Anspruch 5,
wobei die Haltestange (11) aufweist:

einen Haltestangenkörper (111), der hohl ist,
ein Gelenk, mit dem ein Ende des Haltestan-

- genkörpers (111) an dem Bodenseitenträger (16) angeschlossen ist, und einen Sicherungsbolzen, aufweisend eine Bolzenhalterung (114), die an dem Haltestangenkörper (111) befestigt ist, einen Bolzen (116), der in der Bolzenhalterung (114) eingebaut ist, und ein Bolzenloch (117), das sich an dem Bodenseitenträger (16) befindet und mit dem Bolzen (116) zusammenpasst, wobei, wenn der Haltestangenkörper (111) nach oben und unten geschwenkt wird, wird der Bolzen (116) in das Bolzenloch (117) eingesetzt und der Haltestangenkörper (111) wird an dem Bodenseitenträger (16) festgelegt und behält einen bestimmten Aufrecht-Zustand bei, wobei, wenn der Haltestangenkörper (111) nach unten und innen geklappt wird, wird der Bolzen aus dem Bolzenloch (117) herausgezogen, wobei der Haltestangenkörper (111) nach innen parallel zu dem Bodenquerelement (14, 15) geschwenkt wird und in dem Raum der Plattform aufgenommen wird.
7. Plattformbehälter zum Transportieren von großen säulenförmigen Frachtgütern gemäß Anspruch 5, wobei die Haltestangen (11) zueinander versetzt sind und auch zu den Bodenquerelementen (14, 15) versetzt sind.
8. Plattformbehälter zum Transportieren von großen säulenförmigen Frachtgütern gemäß Anspruch 1, der ferner eine Mehrzahl von Stützbeinen (13) aufweist, die an der Plattform angebracht sind und eingeklappt werden können.
9. Plattformbehälter zum Transportieren von großen säulenförmigen Frachtgütern gemäß Anspruch 8, wobei das Stützbein (13) ein Querstützbein (131), ein Vertikalstützbein (132) und eine Diagonalstützstange (135) aufweist, das Querstützbein (131) und das Vertikalstützbein (132) miteinander in einer L-Form festgelegt sind, ein Stützbeinloch (137) in dem Bodenseitenträger (16) zum Aufnehmen des Querstützbeins (131) ausgebildet ist, das Querstützbein (131) in das Stützbeinloch (137) eingefahren und darin geschwenkt werden kann, das eine Ende der Diagonalstützstange (135) an dem Bodenseitenträger (16) mit einem Gelenk angeschlossen ist und das andere Ende der Diagonalstützstange (135), das ein Gelenkloch (136) aufweist, an einem Gelenkhalter (134), der an dem Vertikalstützbein (132) befestigt ist, angeschlossen ist durch Einsetzen eines Gelenkstiftes (138) in das Gelenkloch (136) und den Gelenkhalter (134).
10. Plattformbehälter zum Transportieren von großen säulenförmigen Frachtgütern gemäß Anspruch 9, wobei der Querschnitt des Vertikalstützbeins (132) rohrförmig ist, wobei ein inneres Vertikalstützbein (133) in dem Vertikalstützbein (132) aufgenommen ist und in das Vertikalstützbein (132) eingefahren werden kann.
11. Plattformbehälter zum Transportieren von großen säulenförmigen Frachtgütern gemäß Anspruch 1, der ferner eine Endwand aufweist, die an dem Ende der Plattform befestigt ist und nach innen geklappt werden kann.
12. Plattformbehälter zum Transportieren von großen säulenförmigen Frachtgütern gemäß Anspruch 11, wobei die Breite der Endwand etwas geringer ist als der Abstand zwischen den unteren Flächen der zwei Bodenseitenträger (16).
- ## Revendications
1. Plate-forme conteneur destinée à supporter de grandes charges en colonnes, comprenant :
- deux rails latéraux de fond (16) qui sont parallèles l'un à l'autre ;
une pluralité de traverses de fond (14, 15) aménagées entre lesdits deux rails latéraux de fond (16) ; et
deux traverses d'extrémité (17) disposées aux extrémités desdits deux rails latéraux de fond (16) ;
dans lequel une plateforme pour le chargement de charges est formée par lesdits rails latéraux de fond (16), lesdites traverses de fond (14, 15) et lesdites traverses d'extrémité (17),
caractérisé en ce que
un évidement (151), pour guider le plate-forme conteneur (1) le long d'un guide à rouleaux lorsque le plate-forme conteneur (1) est tiré par une remorque ou un train avec une autre remorque par le guide à rouleaux, est ménagé sur la surface de fond de la partie de jonction desdites traverses de fond (14, 15) à l'emplacement où lesdites traverses de fond (14, 15) se joignent auxdits rails latéraux de fond (16).
2. Plate-forme conteneur destinée à supporter de grandes charges en colonnes selon la revendication 1, dans laquelle lesdites traverses de fond (14, 15) comprennent une pluralité de traverses de fond supérieures (14) qui sont fixées sur les parties supérieures des côtés internes desdits deux rails latéraux de fond (16) et une pluralité de traverses de fond inférieures (15) qui sont fixées sur les parties inférieures des côtés internes desdits deux rails latéraux de fond (16), la surface supérieure de ladite traverse de fond supérieure (14) se situe par-dessus la sur-

face supérieure dudit rail latéral de fond (16), et la surface de fond de ladite traverse de fond inférieure (15) est de niveau avec la surface de fond dudit rail latéral de fond (16).

3. Plate-forme conteneur destinée à supporter de grandes charges en colonnes selon la revendication 2, dans laquelle ladite traverse de fond supérieure (14) et ladite traverse de fond inférieure (15) sont disposées en quinconce.

4. Plate-forme conteneur destiné à supporter de grandes charges en colonnes selon la revendication 2, dans laquelle la longueur de la partie de ladite traverse de fond supérieure (14) qui se situe au-dessus dudit rail latéral de fond (16) est un peu moindre que la distance entre les surfaces de fond desdits deux rails latéraux de fond (16).

5. Plate-forme conteneur destiné à supporter de grandes charges en colonnes selon la revendication 1, comprenant en outre une pluralité d'épontilles (11) qui sont montées sur les deux côtés de ladite plateforme et peuvent être repliés vers l'intérieur.

6. Plate-forme conteneur destinée à supporter de grandes charges en colonnes selon la revendication 5, dans laquelle ladite épontille (11) comprend :

un corps d'épontille (111) qui est creux ;
une charnière, avec laquelle une extrémité dudit corps d'épontille (111) se joint audit rail latéral de fond (16) ; et
un boulon de sécurité comprenant :

- un élément de retenue de boulon (114) monté sur ledit corps d'épontille (111),
- un boulon (116) installé dans ledit élément de retenue de boulon (114) et
- un trou de boulon (117) qui se situe sur ledit rail latéral de fond (16) et correspond audit boulon (116) ;

lorsque ledit corps d'épontille (111) tourne vers le haut et vers l'extérieur, ledit boulon (116) s'insère dans ledit trou de boulon (117) et ledit corps d'épontille (111) sera fixé sur ledit rail latéral de fond (16) et maintiendra un certain état d'érection ; lorsque ledit corps d'épontille (111) est replié vers le bas et vers l'intérieur, ledit boulon est retiré dudit trou de boulon (117), ledit corps d'épontille (111) tourne vers l'intérieur pour devenir parallèle à ladite traverse de fond (14, 15) et est reçu dans l'espace de ladite plateforme.

7. Plate-forme conteneur destinée à supporter de grandes charges en colonnes selon la revendication 5,

dans lequel lesdites épontilles (11) sont disposées en quinconce l'une avec l'autre et sont également disposées en quinconce avec lesdites traverses de fond (14, 15).

8. Plate-forme conteneur destinée à supporter de grandes charges en colonnes selon la revendication 1, comprenant en outre une pluralité de jambes de support (13) qui sont installées sur ladite plateforme et peuvent être repliées.

9. Plate-forme conteneur destinée à supporter de grandes charges en colonnes selon la revendication 8, dans lequel ladite jambe de support (13) comprend une jambe de support transversale (131), une jambe de support verticale (132) et une barre de support diagonale (135) ; ladite jambe de support transversale (131) et ladite jambe de support verticale (132) sont fixées ensemble en forme de « L » ; un trou de jambe de support (137) est formé dans ledit rail latéral de fond (16) pour recevoir ladite jambe de support transversale (131) ; ladite jambe de support transversale (131) peut être rétractée et effectuer une rotation dans ledit trou de jambe de support (137) ; une extrémité de ladite barre de support diagonale (135) se joint audit rail latéral de fond (16) par une charnière et l'autre extrémité de ladite barre de support diagonale (135), qui présente un trou de charnière (136), se joint à un élément de retenue de charnière (134) qui est monté sur ladite jambe de support verticale (132) par insertion d'une broche de charnière (138) dans ledit trou de charnière (136) et ledit élément de retenue de charnière (134).

10. Plate-forme conteneur destinée à supporter de grandes charges en colonnes selon la revendication 9, dans laquelle la section de ladite jambe de support verticale (132) est tubo-annulaire ; une jambe de support verticale interne (133) est reçue dans ladite jambe de support verticale (132) et peut être rétractée dans ladite jambe de support verticale (13).

11. Plate-forme conteneur destinée à supporter de grandes charges en colonnes selon la revendication 1, comprenant en outre une paroi d'extrémité qui est montée sur l'extrémité de ladite plateforme et peut être repliée vers l'intérieur.

12. Plate-forme conteneur destinée à supporter de grandes charges en colonnes selon la revendication 11, dans laquelle la largeur de ladite paroi d'extrémité est un peu moindre que la distance entre les surfaces de fond desdits deux rails latéraux de fond (16).

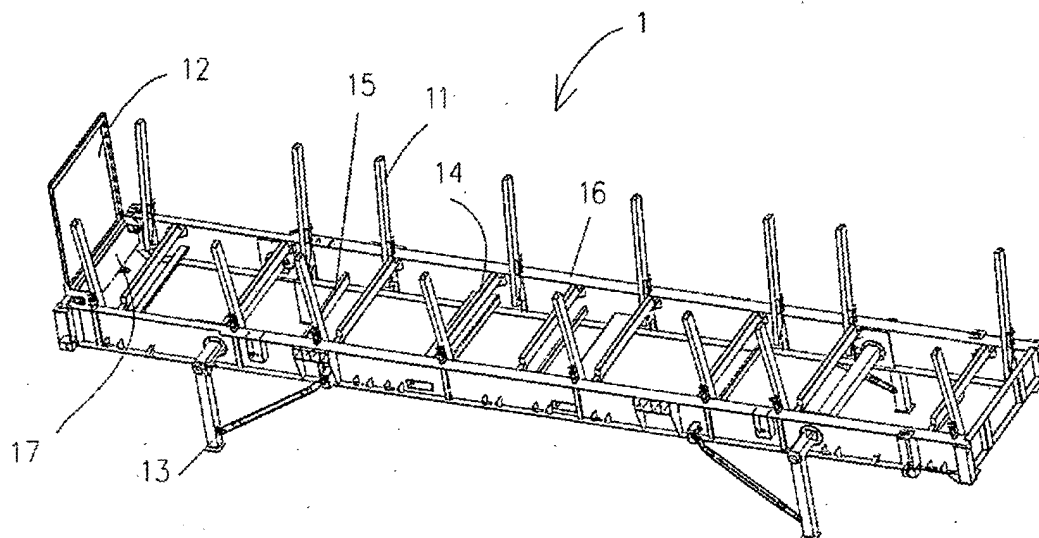


FIG. 1

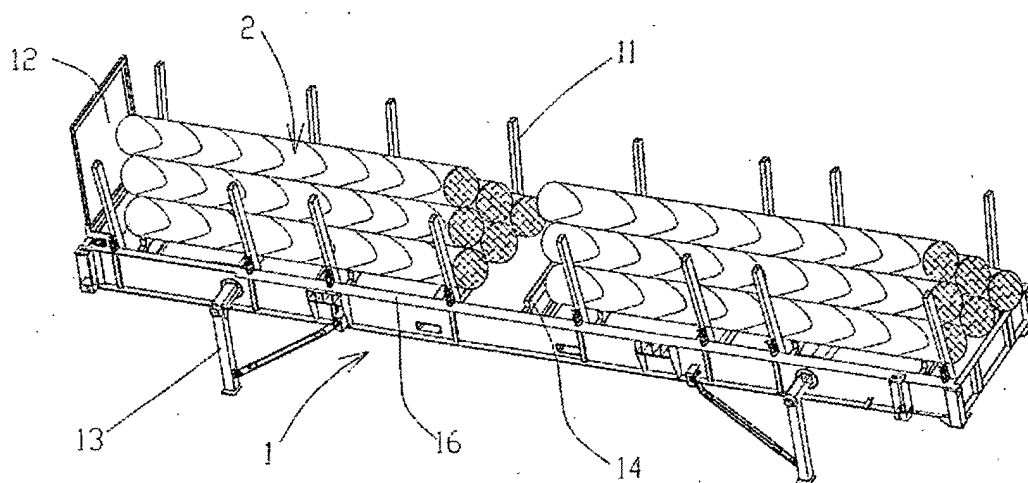


FIG. 2

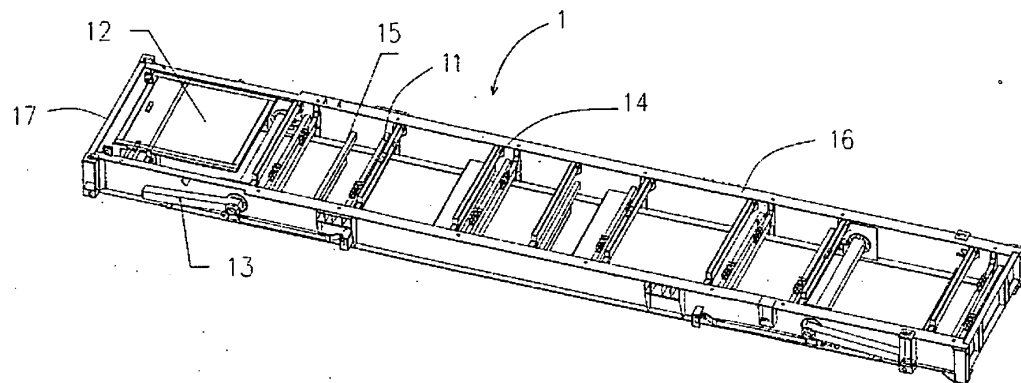


FIG. 3

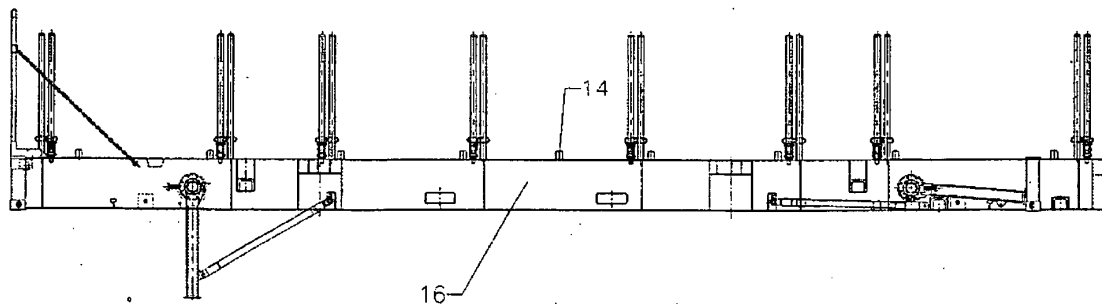


FIG. 4

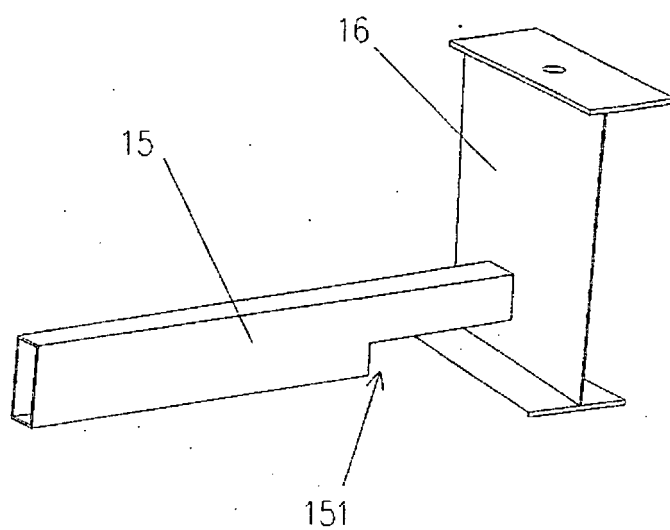


FIG. 5

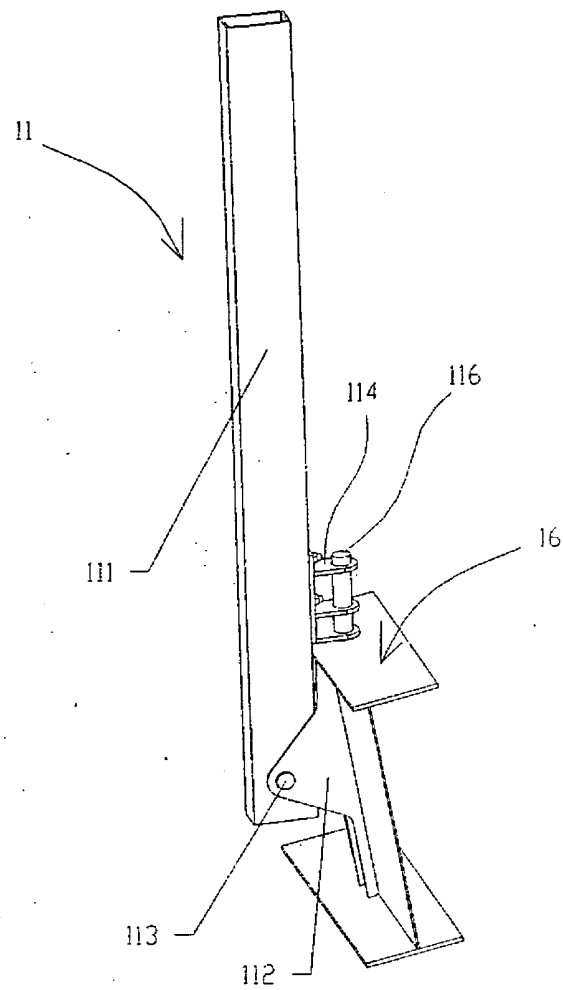


FIG. 6

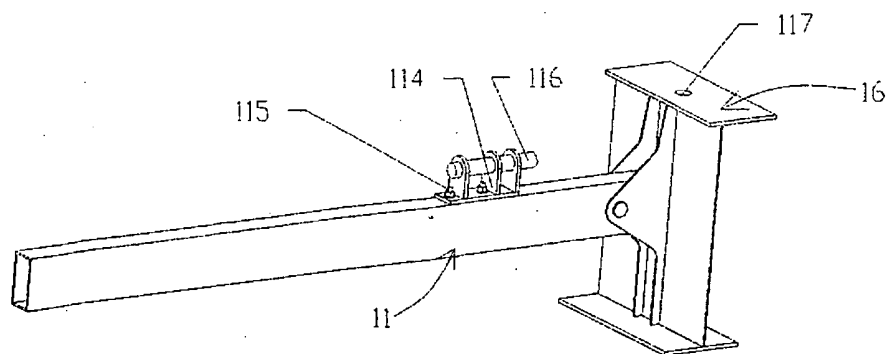


FIG. 7

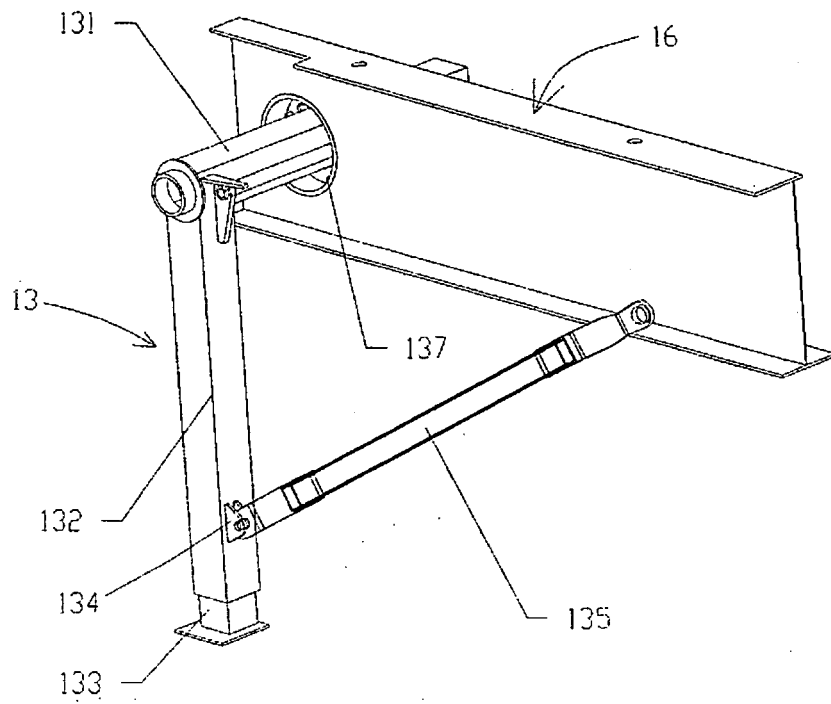


FIG. 8

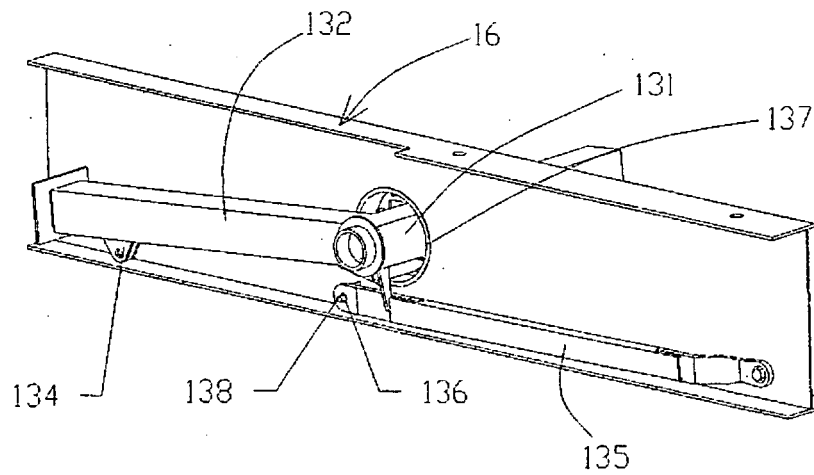


FIG. 9

REFERENCES CITED IN THE DESCRIPTION

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