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(11) Publication number: **0 431 457 A2**

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: **90122732.2**

(51) Int. Cl.⁵: **B61D 47/00**, B61D 3/18

(22) Date of filing: **28.11.90**

(30) Priority: **04.12.89 IT 8352389**

(43) Date of publication of application:
12.06.91 Bulletin 91/24

(84) Designated Contracting States:
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

(71) Applicant: **O.M.M.A.N. OFFICINA MECCANICA
MACCHINE AGRICOLE DI NARDUZZI
ISIDORO & C.Sdf
Via Braide Bernart 5
I-33010 Caporiaccio di Colloredo di Monte
Albano (UD)(IT)**

(72) Inventor: **Narduzzi, Isidoro, Via Braide Bernart
5
I-33010 Caporiaccio di Colloredo
Di Monte Albano (UD)(IT)**

(74) Representative: **Petraz, Gilberto Luigi
GLP S.r.l. Piazzale Cavedalis 6/2
I-33100 Udine(IT)**

(54) **Orientable railway transport means.**

(57) A railway transport means (10-110) which is suitable in particular to transport wheeled vehicles and consists of a railway waggon (11) bearing a support platform (13) for the vehicles loaded thereon, the platform (13) being capable of being moved by sideways displacement (14) or by rotation (19) at an angle to the waggon (11).

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"ORIENTABLE RAILWAY TRANSPORT MEANS"

This invention concerns an orientable railway transport means. To be more exact, the invention concerns a railway means to transport road vehicles, the means being suitable for the loading and discharge of such vehicles at places which are not specifically equipped for this purpose.

It is known that the need to transport road vehicles on railway waggons is increasing continually; this is so not only owing to unavoidable road segments requiring transfer to other means, such as necessary tunnels, sea journeys, etc. but also owing to the increasing difficulties due to road conditions or restrictive legislation or many other reasons.

This fact entails a growing interest in the transport of road vehicles by rail, involving especially a journey carried out for the most part with long distances on railways.

In the case of long journeys to be carried out by lorry-and-trailer units, for instance, it is advantageous to bring the road vehicle to a suitable place near its starting point for loading onto a railway waggon, to load the vehicle onto the waggon and then unload the vehicle at its discharge point so as to drive it to its destination after the great part of the journey, especially if difficult to carry out by road, has taken place on the railway.

The operations of loading and unloading the road vehicles onto and from the railway waggons nowadays are very difficult since they require appropriately equipped areas to which the single railway waggon is brought after being detached from the rest of the train.

The present applicant has designed, tested and embodied a railway transport means suitable to overcome the problems of the state of the art.

The invention is set forth in the main claim, while the dependent claims describe various features of the invention.

The railway transport means according to the invention consists of a railway waggon bearing a movable platform. This platform, on which a road vehicle or vehicles is or are rested, is equipped with two-way displacement means for its lateral removal from the overall volume of the respective waggon and parallel thereto.

In each of these lateral positions the platform can be tilted to cooperate with the ground in discharging the vehicle or vehicles.

According to a variant the platform can be oscillated about a pivot included on the waggon so as to be positioned at a desired angle to the waggon.

By means of the embodiments of the invention the road vehicles carried on the railway means can

cooperate readily with the usual unloading platforms or with the ground, while the railway means remains attached to the train in question and still forms part thereof.

The attached figures, which are given as a non-restrictive example, show the following:-

Figs .1a and 1b are side and plan diagrammatic views respectively of a railway transport means according to the invention;

Figs.2a and 2b are side and plan diagrammatic views respectively of a variant of the invention.

In Figs.1 a railway transport means 10 according to the invention consists of a waggon 11 which can be moved on rails 12.

A movable platform 13 is connected to and positioned on the waggon 11 and is intended to bear road vehicles being transported on rails 12. The platform 13 is connected to the waggon 11 in such a way that it can be slid sideways according to the arrows 14 to the position shown in Fig.1b with lines of dashes or to a position on the other side of the waggon 11.

This sideways displacement can be carried out with various systems of the state of the art; for instance, the platform 13 can run on guides owing to the action of hydraulic jacks secured to the waggon 11.

In its position of sideways displacement the platform 13 can be rested on its own means on the ground, for instance on supports with wheels which can be retracted advantageously in an inactive position and which are indicated generically with 15 in Fig.1b.

The platform 13 can be equipped with its own actuation means, such as jacks referenced generically with 16 in Fig.1b; these jacks 16 in cooperation alternatively with the ground can cause the platform 13 to oscillate in one direction or the other in relation to a horizontal position.

This oscillation according to the arrows 17 is shown with lines of dashes in Fig.1a and enables wheeled vehicles to be loaded or unloaded readily and easily in any working condition.

Figs.2 show a variant of the transport means 10 of Figs.1.

The transport means 110 here too consists of a waggon 11 and a platform 13, the latter 13 in this example being able to rotate according to the arrows 19 about a pivot 18 included on the waggon 11 in the position shown with lines of dashes in Fig.2b.

In this way the platform 13 can take up positions at various angles to the waggon 11, as required.

In this case too the means to accomplish this

oscillation of the platform 13 can be of various types known in the state of the art; as an example only, Fig.2b shows an actuation system 18 of a type including a worm and a wheel.

The embodiment of the variant of Figs.2 is especially suitable when cooperating with loading and unloading platforms arranged for this purpose.

By means of the embodiments of the invention the waggon 11 can readily load and unload the normal wheeled vehicles without requiring special equipment or appropriately arranged sites and, above all, without railway means 10-110 having of necessity to be detached from the train in question.

Claims

1. A railway transport means (10-110) which is suitable in particular to transport wheeled vehicles and is characterized in that it consists of a railway waggon (11) bearing a support platform (13) for the vehicles loaded thereon, the platform (13) being capable of being moved by sideways displacement (14) or by rotation (19) at an angle to the waggon (11).
2. Transport means (10) as claimed in Claim 1, in which the sideways displacement (14) of the platform (13) in relation to the waggon (11) can be carried out on each of the two sides of the waggon (11).
3. Transport means (10) as claimed in Claim 1 or 2, in which the platform (13) comprises means (16) for its oscillation (17) when it is in its position of sideways displacement (14).
4. Transport means (10) as claimed in any claim hereinbefore, in which the platform (13) comprises means (15) for its temporary support when in its position of sideways displacement (14).
5. Transport means (110) as claimed in Claim 1, in which the platform (13) can be rotated at an angle through 360°.

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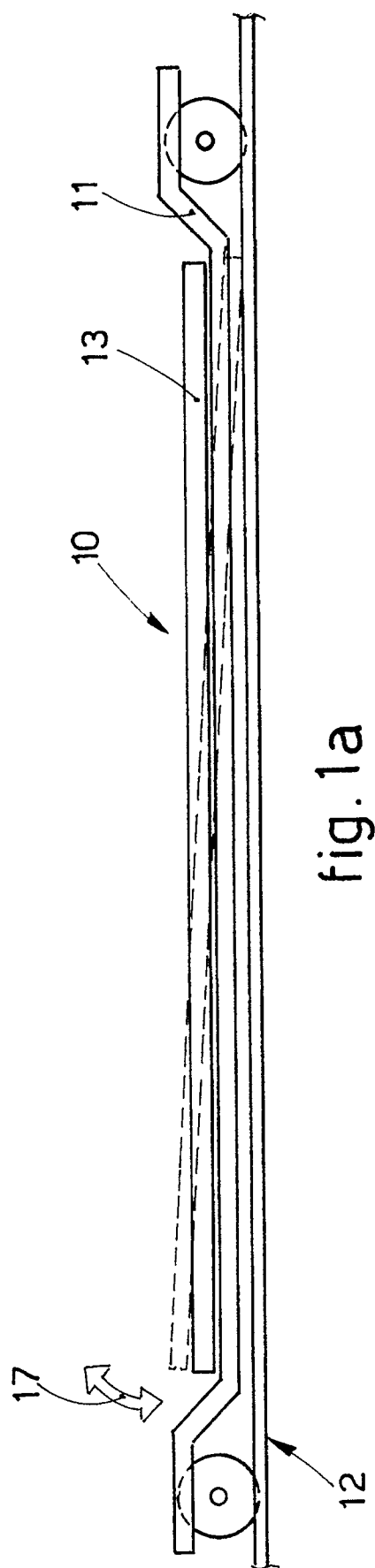


fig. 1a

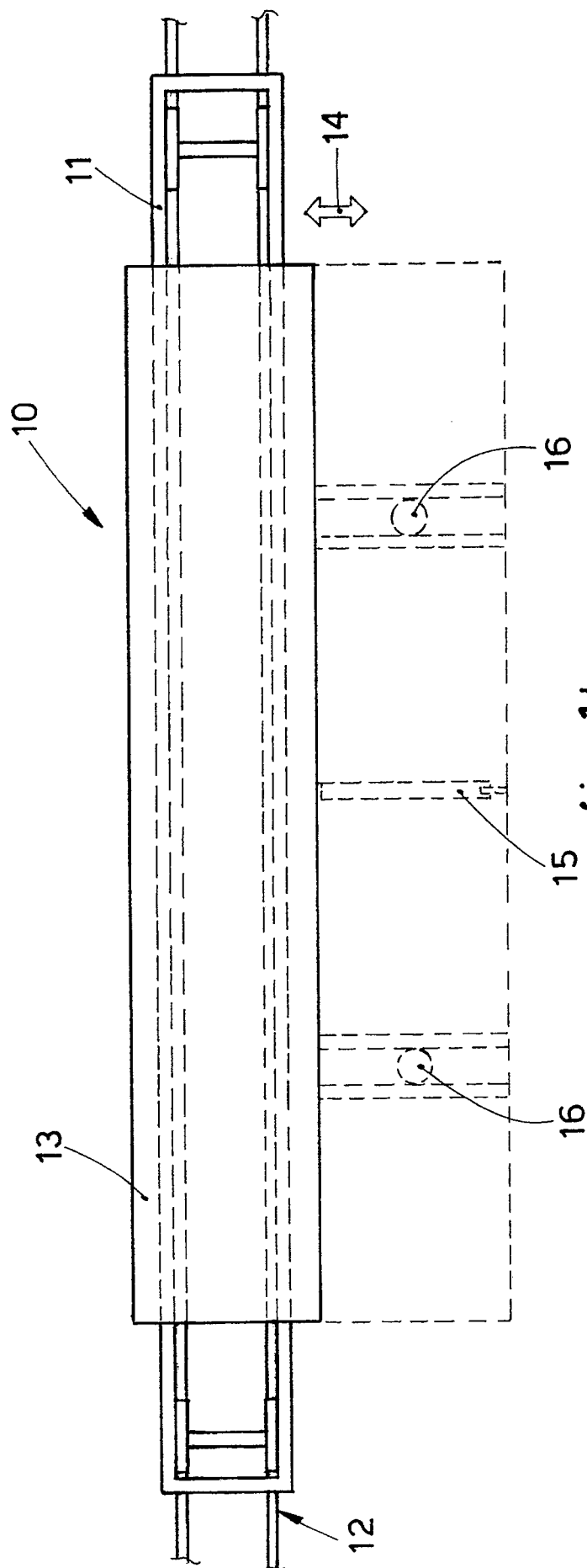


fig. 1b

