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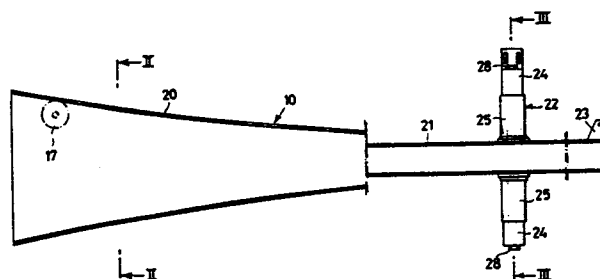
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54 **Buffered lead-in guide for cableway vehicles.**

57 Buffered lead-in guide for cableway vehicles constrained to a haulage cable by means of a hooking device of the clamp type, and provided, in an upper hanging-up portion thereof, with at least a pivot provided with balancing and guide rotary elements acting inside said lead-in guide, said lead-in guide being constrained to outer supports, and being provided with an enlarged mouth portion which gets narrower up to an inner dimension close to that of said rotary elements, wherein said enlarged portion is arranged in a substantially cantilevered position and in correspondence of at least a first support of said outer supports, elastic elements positioned between said lead-in guide and said outer support are provided.



"BUFFERED LEAD-IN GUIDE FOR CABLEWAY VEHICLES"

The present invention relates to a buffered lead-in guide for cableway vehicles.

5 It is known to provide guide elements which receive the cableway vehicle, above all in the nearby of the stations, and which cause it to place itself in a balanced position, so to facilitate the operations of clamp unlocking, and of passengers boarding and getting out.

10 Guide elements of the above mentioned type are obtained from sections or from welded elements having an essentially "C"-shaped cross section, so to receive a wheel or other rotary means provided on the vehicle supporting device, so to guide and balance it in the nearby of the stations or of other particular guided areas.

15 In general, a so structured guide element is provided with a particularly enlarged mouth portion, rearward constrained to a rigid beam, which receives the rotary means, even if it is rocking, and, by getting narrower up to reach the dimension of a rather precise guide, causes the vehicle to be stabilized and balanced.

20 The correct and stable position of the vehicle secures, or at least favours the operation of the mechanism of clamping to the haulage cable, and facilitates the boarding and the getting out of passengers.

25 The arrangement of such a guide solid with outer support means causes strong stresses between the same guide and the related wheels of the support devices of the vehicles which arrive after each other, by being hauled by the haulage cable. In fact, although the end

portion of the guide element is enlarged and is arranged in a cantilevered position, the bump occurring between the individual wheels and the guide generates in the long term deformations of the same guide, and dangerous oscillations, which weaken the clamp device, with risk of breakage.

Purpose of the present invention is to at least partly eliminate the above said oscillations, reducing as far as possible the stresses and the reaction forces deriving therefrom.

A further purpose is to obtain a quicker and better stabilization of the incoming vehicles.

These and other purposes, according to the invention, are achieved by providing a buffered lead-in guide for cableway vehicles constrained to a haulage cable by means of a hooking device of the clamp type, and provided, in an upper hanging-up portion thereof, with at least a pivot provided with balancing and guide rotary elements acting inside said lead-in guide, said lead-in guide being constrained to outer supports, and being provided with an enlarged mouth portion which gets narrower up to an inner dimension close to that of said rotary elements, characterized in that said enlarged portion is arranged in a substantially cantilevered position and that in correspondence of at least a first support of said outer supports, elastic elements positioned between said lead-in guide and said outer support are provided.

Characteristics and advantages of a guide for cableway vehicles according to the present invention shall be better clarified from the following exemplifying and non-

limitative description referred to the related schematic drawings wherein:

Fig. 1 is a partial and schematic elevation view of a lead-in guide according to the present invention,

5 Fig. 2 is a sectional view according to path II-II of Fig. 1, and

Fig. 3 is a sectional view according to path III-III of Fig. 1.

Referring to the drawings, a buffered lead-in
10 guide, according to the invention, and generally indicated with 10, is installed, e.g., in correspondence of an entrance of a station, so to receive and guide cable-way vehicles (not shown). The said vehicles are hung by a support element 11 extending from a hooking device 12
15 comprising a blocking clamp 13 for a cable 14, a device 15 for opening the said clamp, at least one sliding wheel 29 and at least one pivot 16 bearing at its end a rotary element 17, e.g., a wheel.

A first wheel 17 enters the guide 10, while a second
20 sliding wheel 29 comes above a guide and support track 18.

The guide 10, having a "C"-shaped cross-section, and rearward constrained to a rigid beam 19, comprises an enlarged mouth section 20, which becomes gradually narrower, radiused towards a portion 21, the inner dimension
25 of which is slightly greater than, and close to the dimension of wheel 17.

The enlarged mouth portion 20 is arranged in a cantilevered position, and extends from the narrower
30 portion 21 supported together with the rigid beam 19 inside at least a first outer support 22 and a second

outer support 23.

The first outer support 22 is composed by at least three beams 24 so welded and linked to one another, as to form a housing for the guide portion 21 with the interposition of elastic elements 25 on both the sides thereof.

More particularly, the elastic elements 25 are constrained by screw bolts 26 both to the rigid beam 19 and to the beams 24 of the outer support 22, where they position themselves, adjustable in position, inside related threaded seats 27 provided on studs 28 which can be rotatably operated from the outside.

The second outer support 23 is a simple section to which the rigid beam 19 is constrained, e.g., is hung, and in a particular form of practical embodiment it can be provided with a hinge for the same rigid beam 19, so to increase the positive effect of the elastic elements 25, allowing an articulation, even if of minimum extent, of the lead-in guide 10.

Of course, the elastic elements can be accomplished either by steel springs, or by pads of elastomeric material, so to be able to guarantee a good absorption of the impact as the wheel 17 enters the enlarged portion 20 of the guide 10, without however undergoing deformations, or, which is more important, without promoting the breakage or the damaging of the outer supports.

Furthermore, the elastic elements can advantageously have also buffering properties, so to limit, even if not to eliminate, the return forces of the guide 10, after that this latter has received the bumps of the wheel of the cableway vehicle.

The presence of the screw bolts 26 at the ends of

the elastic elements 25 or inside containment elements thereof allows them to be easily and quickly positioned and dismantled for replacement, whilst the provision of the studs 28 actuatable from the outside allows the
5 elastic elements to be calibrated, so to confer the desired response or absorption value.

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1. Buffered lead-in guide for cableway vehicles constrained to a haulage cable by means of a hooking device of the clamp type, and provided, in an upper hanging-up portion thereof, with at least a pivot provided with balancing and guide rotary elements acting inside said lead-in guide, said lead-in guide being constrained to outer supports, and being provided with an enlarged mouth portion which gets narrower up to an inner dimension close to that of said rotary elements, characterized in that said enlarged portion is arranged in a substantially cantilevered position and that in correspondence of at least a first support of said outer supports, elastic elements positioned between said lead-in guide and said outer support are provided.
2. Lead-in guide according to claim 1, characterized in that said elastic elements are rendered solid with said guide and said outer support by means of stud bolts.
3. Lead-in guide according to claim 2, characterized in that provided is a stud positioned in correspondence of said screw bolt positioned towards said outer support, inside said stud a bore being provided, which is threaded complementary to said stud bolt, so that the elastic force exerted by said elastic element can be adjusted.
4. Lead-in guide according to claim 1, characterized in that between said lead-in guide and said outer support a rigid beam is provided.
5. Lead-in guide according to claim 1, characterized in that said elastic elements are constituted by pads made from elastomeric material.
6. Lead-in guide according to claim 1, characterized

in that said elastic elements are constituted by steel springs.

Fig.1

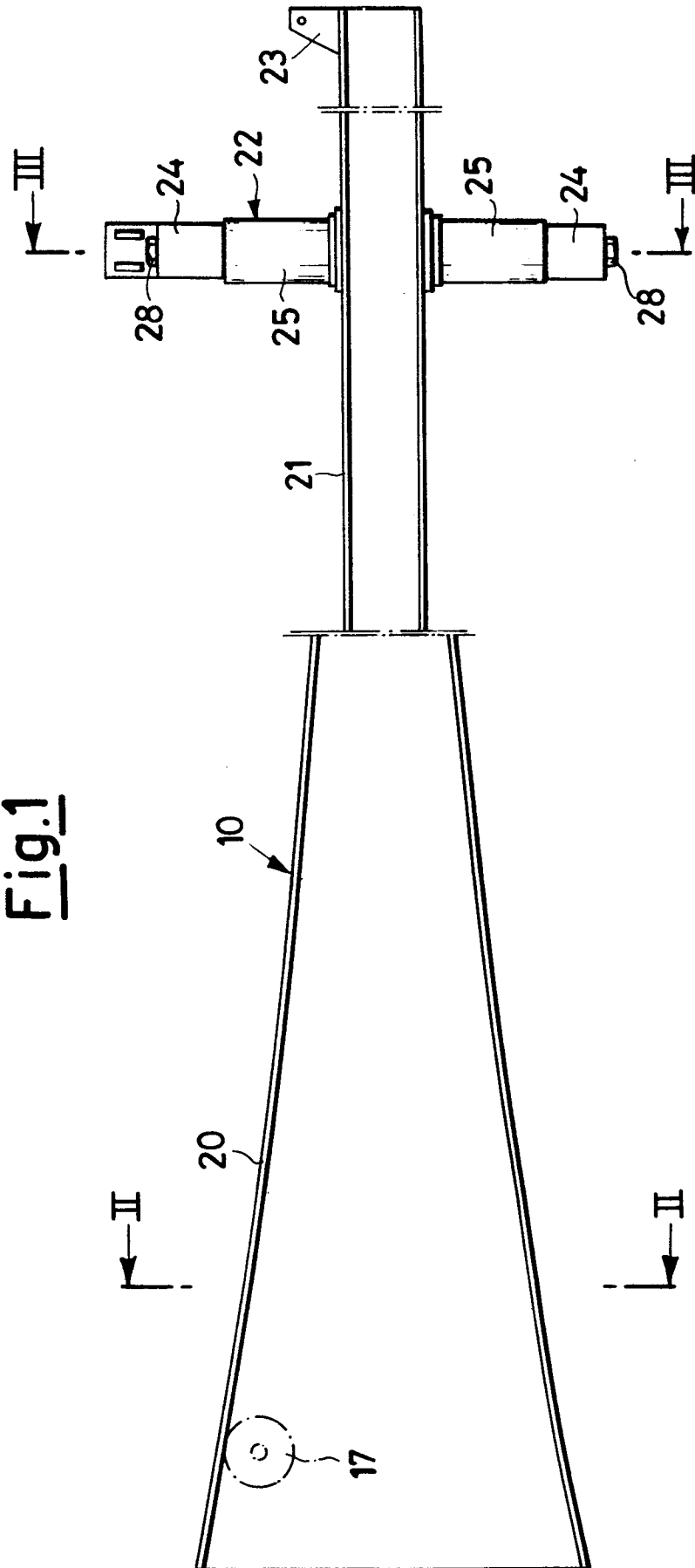
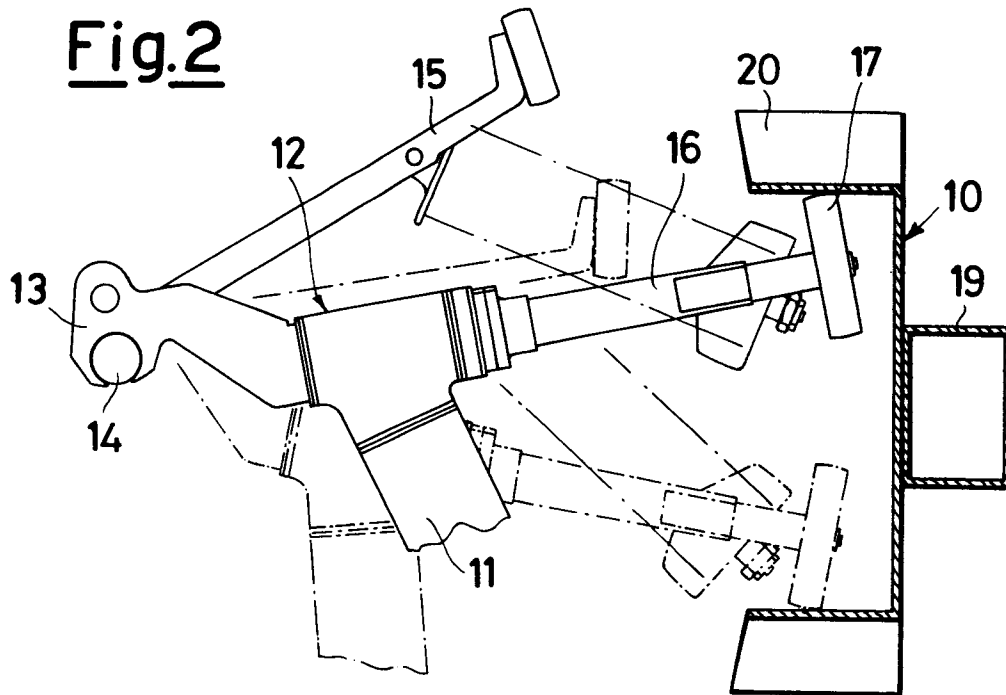


Fig.2Fig.3