

## PATENT SPECIFICATION



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357,448

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## COMPLETE SPECIFICATION.

## Improvements in or relating to Endless Track Vehicles.

I, ADOLPHE KEGRESSE, a French Citizen, of 156, rue Armand Silvestre, Courbevoie, France, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

In high speed endless track propelling apparatus, it is important if not indispensable, to connect in a resilient manner the load-carrying rollers to the remaining mechanism in such a way as to cause this resilient connection to absorb the vibrations, caused by ground inequalities, at a point as near their origin as possible. Attempts have been made heretofore to attain the above object by connecting a main load carrying equalizer to the frame by springs and connecting each end of the equalizer to a rigid plate by a spring, this plate carrying the bogie wheels which ran on the endless track. In certain cases, the plates themselves were constructed as springs.

According to the present invention, the bogie wheels are coupled together by rigid plates but there are a plurality of springs at each end of the equalizer.

In another form according to the present invention the resilient connection between the plates connecting the bogie wheels and the corresponding end of the main load equalizer comprises suitably shaped blocks of elastic material.

The accompanying drawings show by way of example two forms of construction of the invention; for arresting the vibrations at their point of origin.

In the drawings:

Figure 1 shows in elevation a construction adapted to sets of two bogies.

Figure 2 is a plan of Figure 1 partly in section along the line A—B.

Figure 3 is an elevation of another construction, and

Figure 4 is a section along the line A—B in Figure 3.

Throughout the Figures, 1 denotes the carrying axle of the part of the vehicle corresponding to the propelling system. This axle is secured to the frame by a known device, for example by plate springs 2 (Figures 1, 2 and 3). A main

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load carrying equalizer 3 is adapted to oscillate at each end of the axle 1 (Figures 1, 2 and 3).

In the device represented in Figures 1 and 2, the load carrying equalizer 3 is connected to rollers 7 by spiral springs 4, which bear against a plate 5 provided on the lower part of the said equalizer, and also against suitably shaped end plates 6 connecting the rollers 7 of each bogie.

The spiral springs are guided at each end by buffers 8 and 9, the first of which is integral with the lower part 5 of the equalizer 3 and the second with the connecting end plate 6.

These guide buffers 8 and 9 serve at the same time as abutments for limiting the travel of the springs 4.

In the modification shown in Figures 3 and 4, the spiral springs are replaced by blocks 10 and 11 of convenient shape and made of plastic material (for example rubber) fitted externally inside a member 12 secured to the lower part of the equalizer 3. The inner part of the blocks of plastic material 10 and 11 fits on a member 13 connecting the rollers 7.

These connecting members 13 have an appropriate form so as to prevent any important longitudinal displacement of the rollers with respect to the equaliser 3.

The above-mentioned blocks 10 and 11 are mounted compressed so as to hold firmly in place the bogie comprising the connecting pieces 13 and rollers 7.

As will be seen, in the two devices hereinbefore described a resilient connection between a set of rollers and the main load carrying equalizer is realised.

In the form shown in Figures 1 and 2, the spiral springs 4 will absorb the vibrations, whatever their direction may be. In the modification shown in Figures 3 and 4, the vibrations will be damped by the blocks 10 and 11, of plastic material. In both cases, there is no longer any articulation. The elasticity of the springs 4 on the one hand, and that of the blocks 10 and 11 of plastic material on the other hand, will allow the rollers 7 of the same bogie to oscillate relatively to each other.

Having now particularly described and

ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

- 5 1. A device for mounting the carrying bogie of endless track propelling apparatus, in which there is a main load carrying equalizer and bogie wheels coupled together by rigid plates characterised by the fact that each end of the  
10 equalizer has a plurality of springs interposed between it and the rigid plates coupling each set of bogie wheels.
- 15 2. A device for mounting the carrying bogie of endless track propelling apparatus, in which the resilient connection

between the plates connecting the bogie wheels and the corresponding end of the main load equalizer comprises suitably shaped blocks of elastic material. 20

3. The mechanism for endless track vehicles substantially as described or substantially as shown in Figures 1 and 2 or Figures 3 and 4 of the accompanying drawings. 25

Dated this 18th day of December, 1930.  
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Fig.1

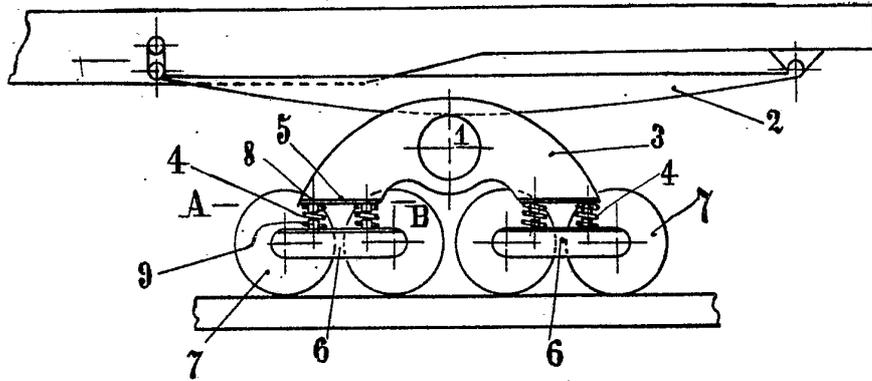


Fig.2

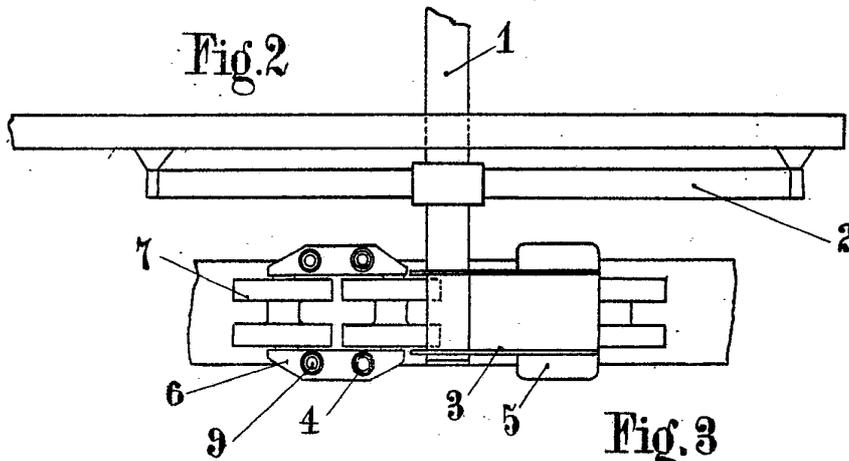


Fig.3

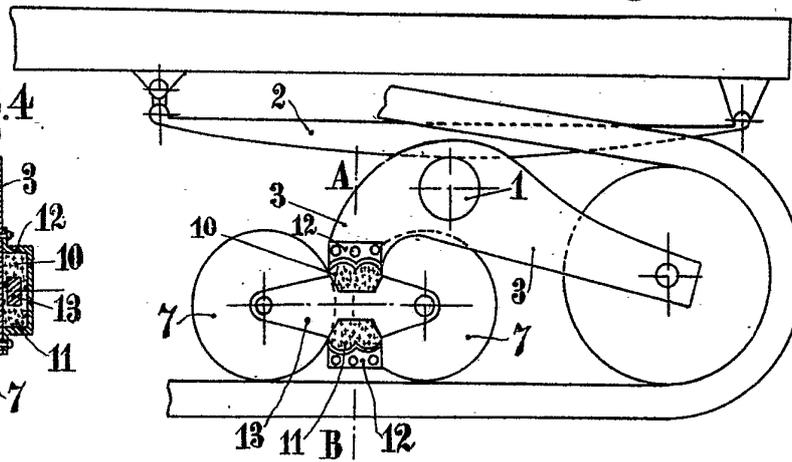
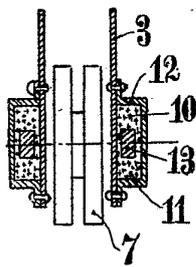


Fig.4



[This Drawing is a reproduction of the Original on a reduced scale.]