PATENT SPECIFICATION

Application Date: Aug. 25, 1924. No. 20,104/24. **228,464**

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COMPLETE SPECIFICATION.

Improvements in Endless Track Apparatus.

I, ADOLPHE KEGRESSE, of 53, rue Balard, Paris, France, a French citizen, 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:—

Endless track constructions are known in which the endless track is guided around the two end pulleys by flanges on the said pulleys, and in which neither the endless track nor the rollers which bear upon the inner face of the bottom stretch of the endless track are provided with guiding members.

According to the present invention in such endless track constructions, one or both of the end guide pulleys is or are pivotally mounted so that it or they may turn automatically and assume any position necessitated by the force exerted thereon by the endless track.

In order that the invention may be clearly understood, one construction is shown by way of example in the accompanying drawings in which:

Figure 1 is an elevation, and

Figure 2 a plan partly in section.

The endless track 1 winds about two guide pulleys 2 and 3 which are pivoted so that they can turn that is to say the angle which their axis forms with that of the endless track, remains practically constant, in other words the pulley automatically assumes a position in line with the two sections of the endless track.

The bearing rollers 4 are connected to the vehicle by known devices not shown in the drawing.

The guide pulleys 2, 3 are each connected to the chassis 8 of the vehicle by a fork 5 carrying at one of its ends the spindle 6 of the said pulleys and at its other end a ball and socket joint 7 about which the fork 5 and consequently the guide pulleys 2 and 3 move. The ball and socket joints 7 are each connected to the chassis 8 by a bracket 9. Either of the guide pulleys 2, 3 may be the driving one. In such a case it is connected to the drive of the vehicle by a known mechanical device, such as for instance, a double universal joint as diagrammatically shown at 10 in Figure 2.

The other guide pulley which merely supports the endless track and also guides, receives the tension device for the endless track. To that end a screw and nut device 11 are provided or any other known device giving the same result.

The driving pulley may be arranged in front or at the back, and two driving pulleys may also be provided, one of them replacing the endless track guide pulley.

When it is a question of apparatus merely for supporting or bearing a trailer, for instance, or a bearing forecarriage, or an aircraft landing gear *etc.* it is obvious that the apparatus may comprise two guide pulleys for the endless track, neither of which drives. In the latter case, the provision of pivoted pulleys makes it possible to eliminate lateral friction of the supporting pulleys at the leading in and out ends of the sections of the track.

In fact, when under the action of a transverse force the bottom section of the endless track tends to curve laterally, the pivoted pulley which receives the said section, automatically comes into line with the said section or more accurately into line with the two sections. It will thus work in conditions very similar to those of the direction changing guide pulleys frequently used.

Practice shows the proportion to be adopted between the distance between the bearing rollers 4 and the width of the track 1 so as to prevent lateral deformations of the latter from exceeding a given fraction of the width of the rollers, even in extreme cases.

Instead of pivoting both guide pulleys

[*Price* 1/-]

of the endless track, one of them may be fixed, the other one being pivoted, either one or the other being driving, or both being driving, or neither being driving pulleys.

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:—

1. An endless track construction in which the endless track is guided around the two end pulleys by flanges on the said pulleys, and in which neither the endless track nor the rollers which bear upon the inner face of the bottom stretch of the endless track are provided with guiding members characterised in that one or both of the end guide pulleys is or are pivotally mounted so that it or they may turn automatically and assume any position necessitated by the force exerted thereon by the endless track.

2. The pivoting devices for endless track apparatus substantially as described or substantially as illustrated in the accompanying drawings.

Dated this 25th day of August, 1924.

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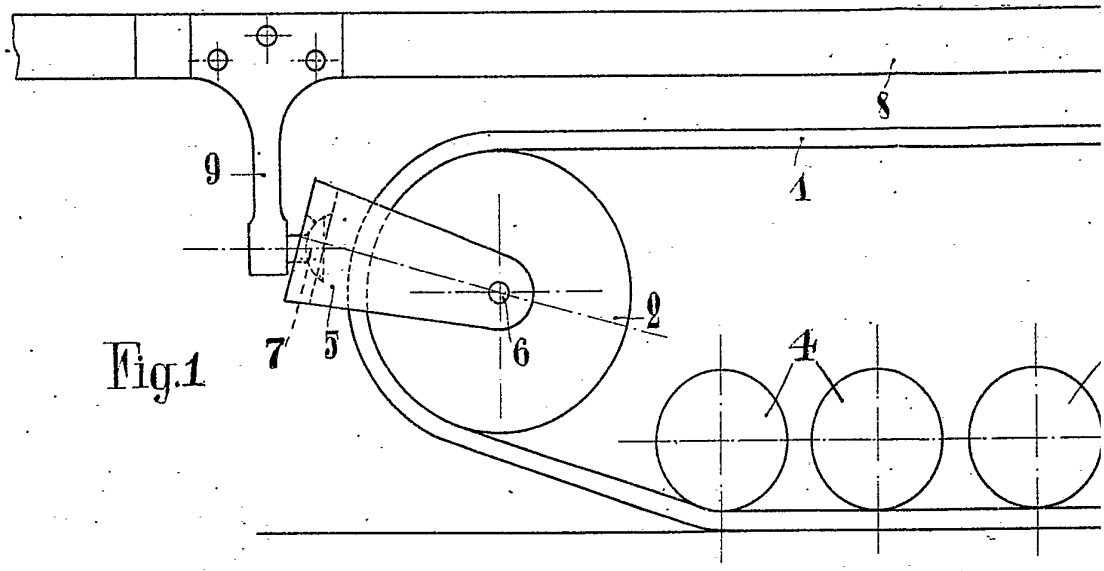
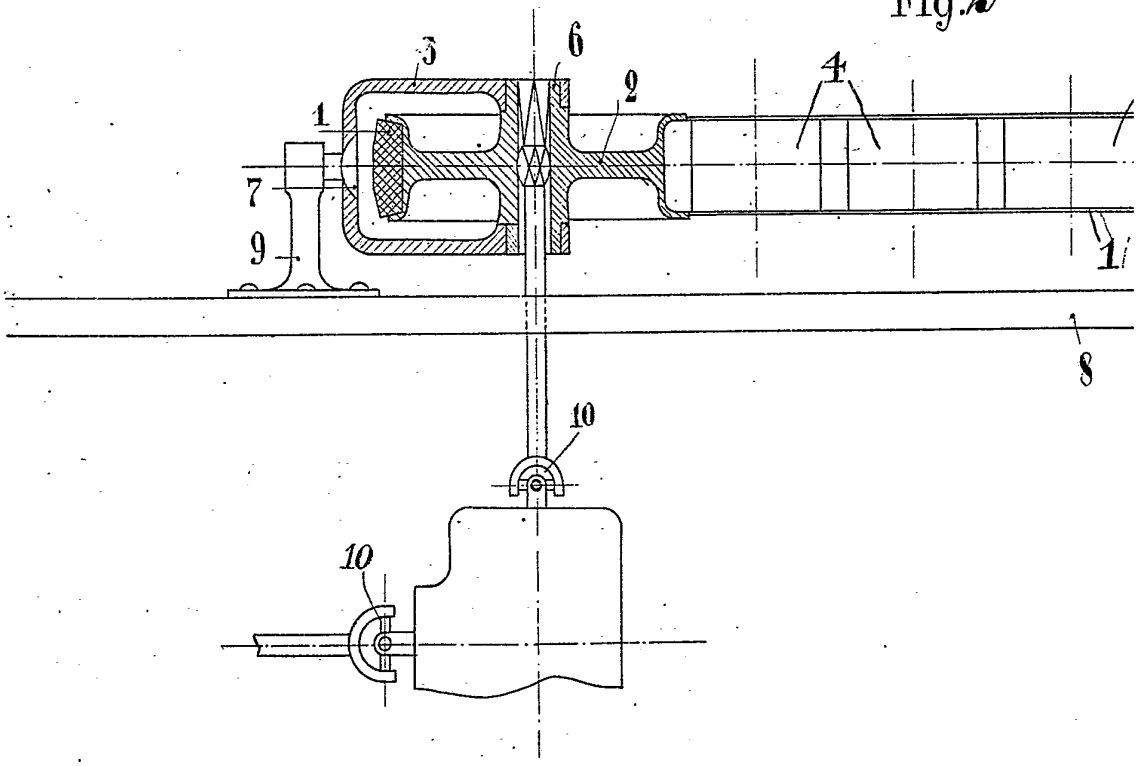


Fig.1

Fig.2



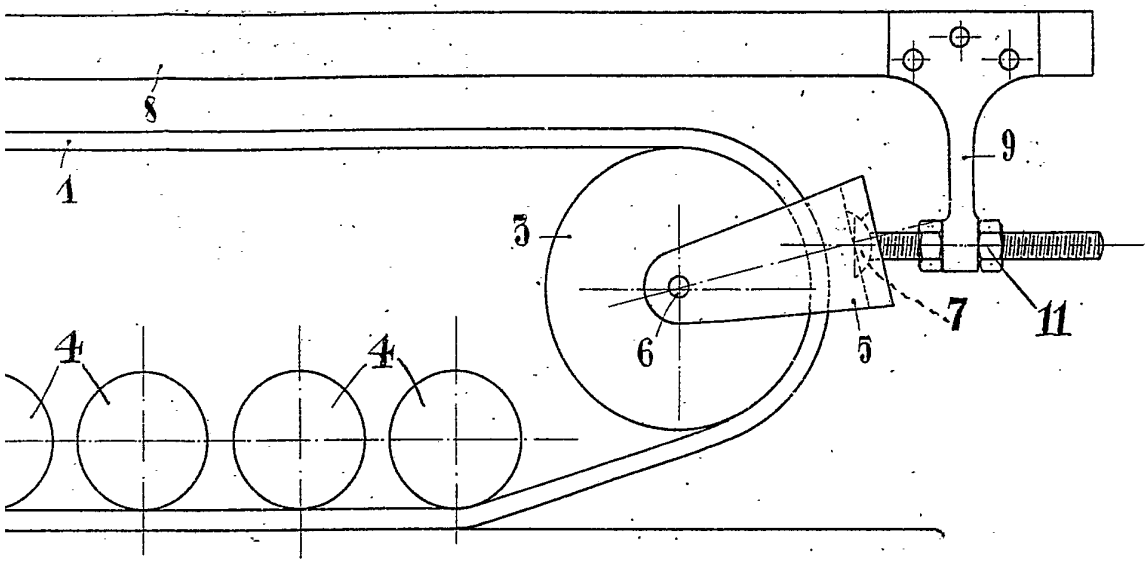


Fig. 2

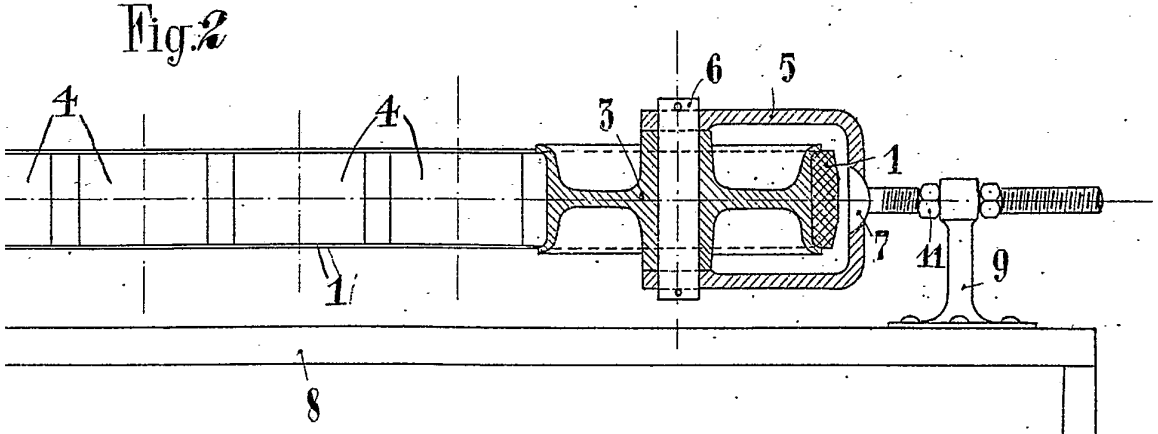


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Fig.1

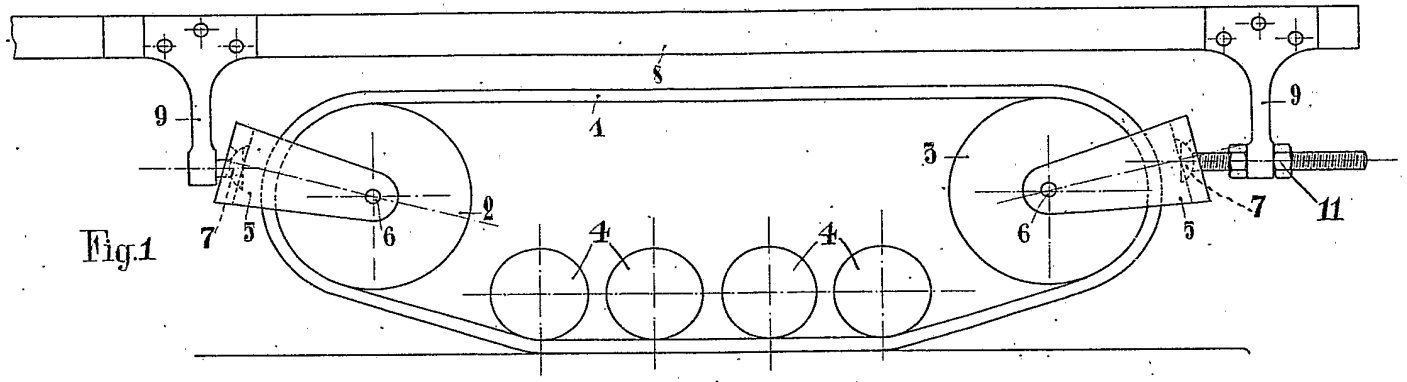
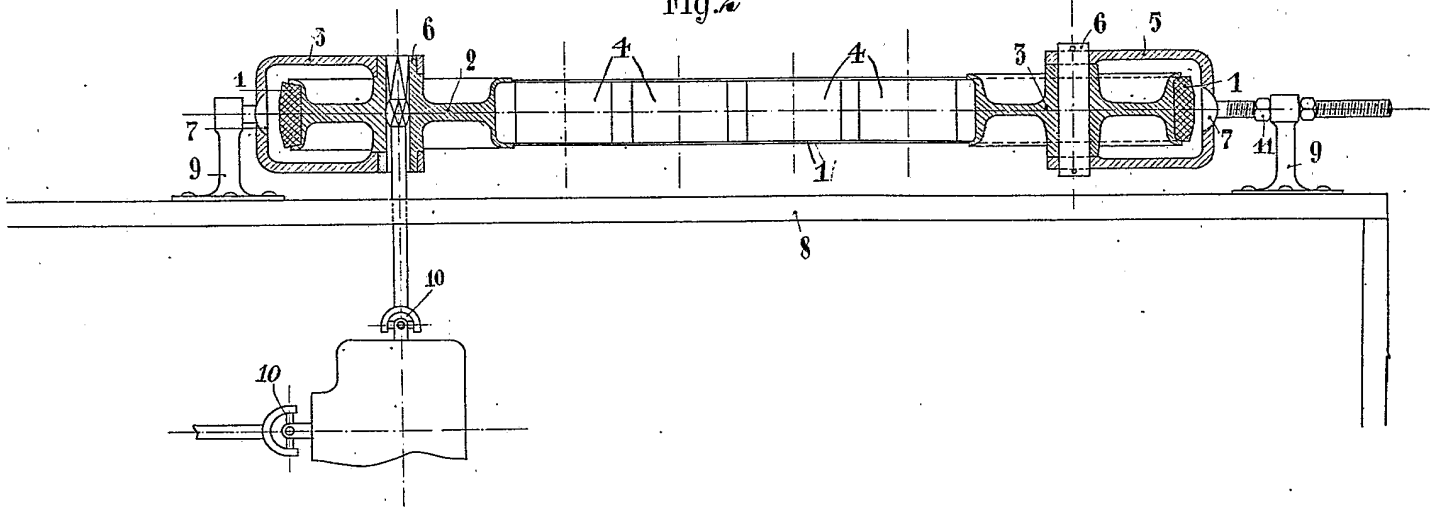


Fig.2



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