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ENDLESS TRACK MOUNTING

Filed June 10, 1929

Fig. 1

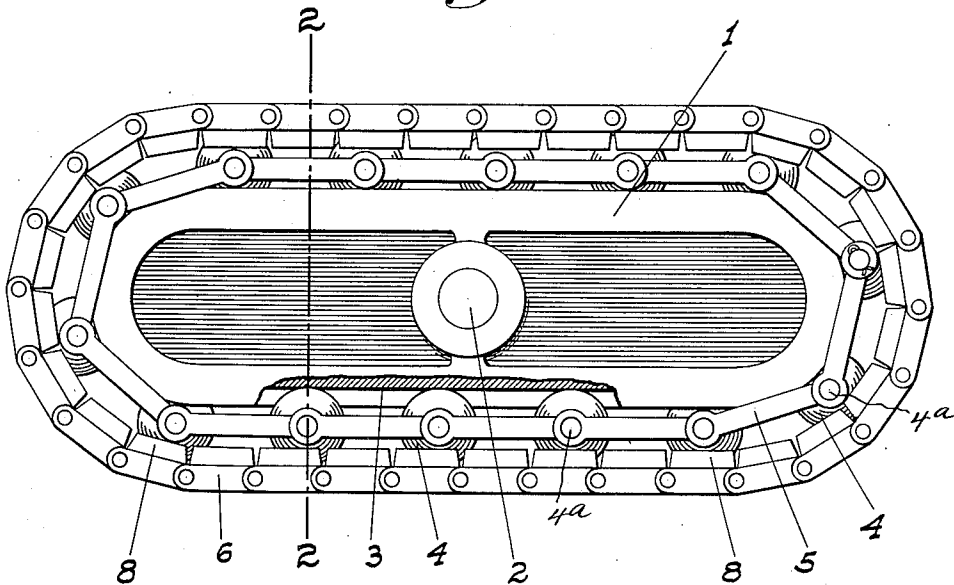
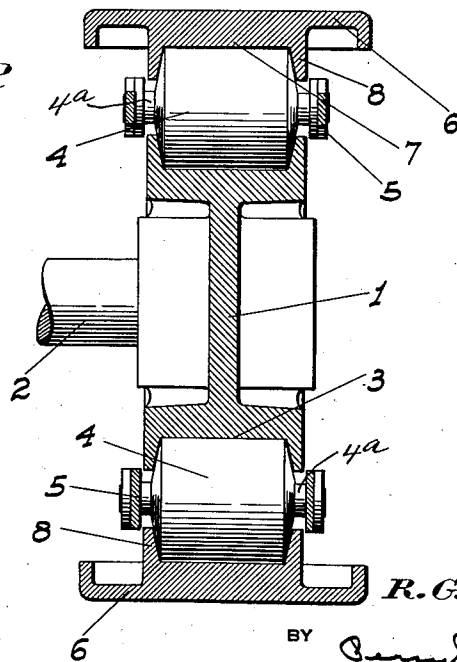


Fig. 2



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ENDLESS TRACK MOUNTING

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This invention relates to endless tracks such as are used instead of wheels for supporting heavy vehicles operating over ground which would cause wheels to sink down.

5 The principal object of my invention is to provide a mounting for endless tracks of this general nature so arranged that the weight is not taken by the axles of the rollers about which the track necessarily passes. This allows a greater freedom of rotation of the rollers than would otherwise be the case and the tendency for the spindles or axles of the rollers or their bearings to wear out of round is of course eliminated; and friction of operation is reduced to a great extent.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

20 These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

25 In the drawings similar characters of reference indicate corresponding parts in the several views:

Fig. 1 is a side elevation of my improved track mounting structure.

30 Fig. 2 is an enlarged cross section on the line 2-2 of Fig. 1.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 denotes a rigid horizontal beam mounted in which centrally between its ends is a laterally extending shaft 2 on which the machine or vehicle is supported. The beam is formed all about its periphery with a deep and relatively wide endless and smooth surfaced groove 3 which at the ends of the beam is semicircular. This groove forms the supporting track for rollers 4 which are arranged in spaced relation to each other and are provided with axial pins 4a. These spindles, on both ends, are engaged by the adjacent ends of links 5, so that the rollers are connected together to form an endless but flexible unit.

45 The endless track, which consists as usual of links 6 pivoted together extends about the roller unit. The inner faces of the links have centrally disposed flat portions 7 extending lengthwise thereof from end to end so as to form a continuous bearing surface or track for the rollers in opposed relation to the beam track.

To prevent lateral displacement of the track relative to the rollers each link has upstanding longitudinally extending flanges 8 at the sides of the roller engaging portion. To better maintain the track and beam in proper transversely aligned relation and to avoid any tendency to binding the inner faces of the link flanges and the corresponding flanges of the sides of the beam groove flare outwardly from the bottom; while the sides or ends of the rollers are correspondingly sloped as is clearly shown in Fig. 2.

The roller pins project beyond the sides of the roller engaging groove or track of the main frame 1 a sufficient distance to dispose the links 5 beyond or outwardly of said groove as well. This feature permits much longer links, and a consequent smaller number of rollers, to be used than would otherwise be the case, since the links can overlap the outsides of the track when making a turn without interfering with the groove-flanges 8.

By means of the above construction it will be seen that the track is mounted on what amounts to a continuous roller bearing, the load being taken by the opposed faces of the rollers and beam rather than by the pins of the rollers which may be made very light. Also this roller bearing, forming a flexible unit by reason of the connecting links, is free to move about the beam, preventing undue wear on the beam track at any one point and distributing such wear evenly over the entire length of the track.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claim.

Having thus described my invention what 100

I claim as new and useful and desire to secure by Letters Patent is:

A wheel substitute comprising a carrying frame having a continuous groove about its periphery, an endless link track around the frame in spaced relation therefrom, each link having on its inner face a groove in opposed relation to the groove of the frame whereby the sides of such opposed grooves form a continuous housing intermediate the frame and track, rollers enclosed within the housing and forming a support to hold the track in positive transverse alinement with the frame while permitting the track to travel freely about the frame, pins on the rollers projecting between the side walls of the housing to the outside thereof, and links connecting the pins beyond the outer sides of the housing.

In testimony whereof I affix my signature.

ROBERT G. LE TOURNEAU.

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