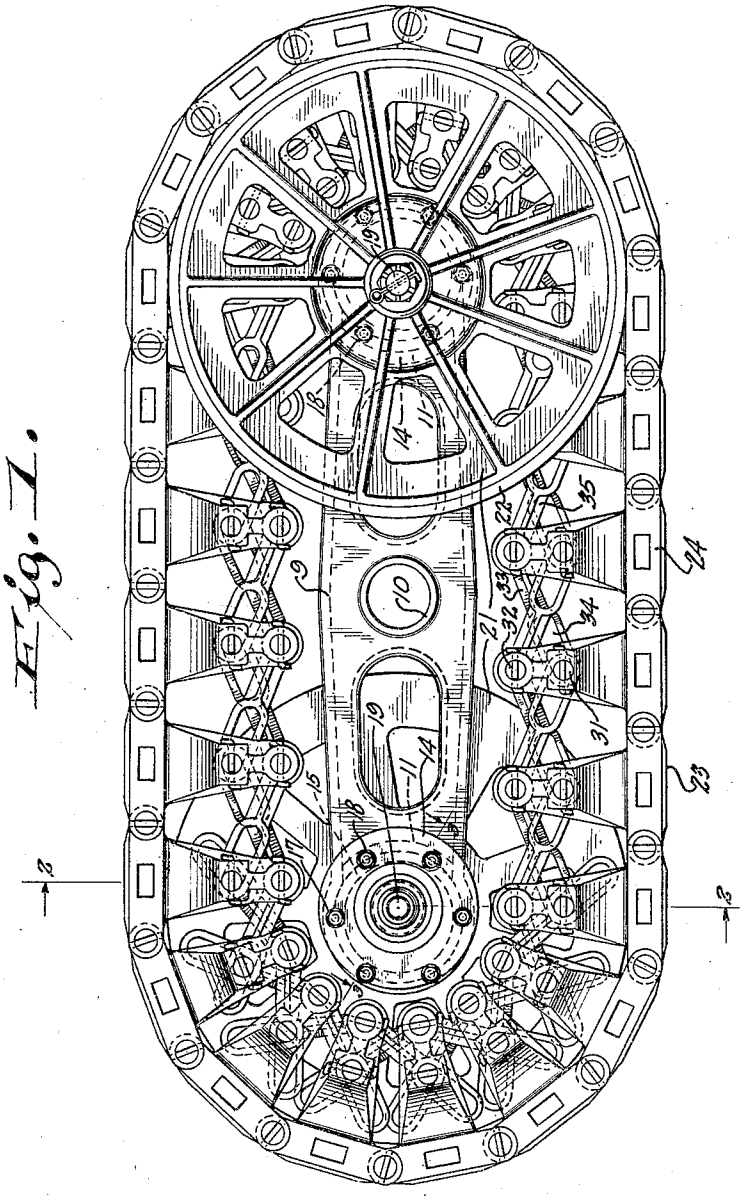
March 14, 1933. F. A. STREICH 1,901,421

TRACKLAYING DEVICE

Filed Jan. 6, 1930 2 Sheets-Sheet 1

Fig. 1.



INVENTOR.
Frederick A. Streich
BY
Morsell, Kenny & Morsell
ATTORNEY.

March 14, 1933. F. A. STREICH 1,901,421

TRACKLAYING DEVICE

Filed Jan. 6, 1930 2 Sheets-Sheet 2

Fig. 2.

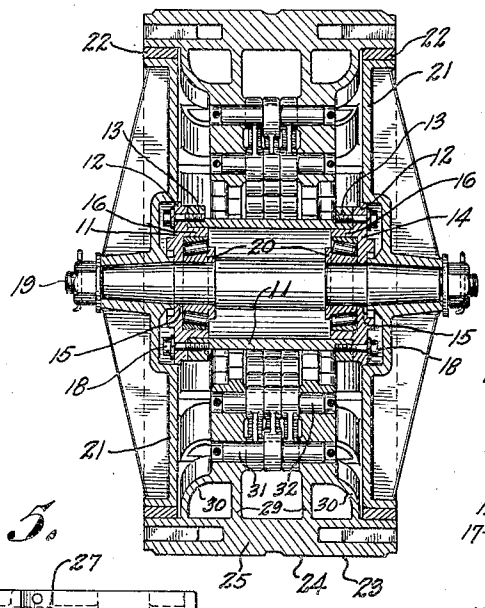


Fig. 3.

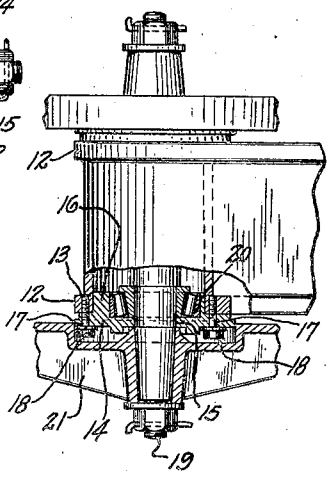


Fig. 5.

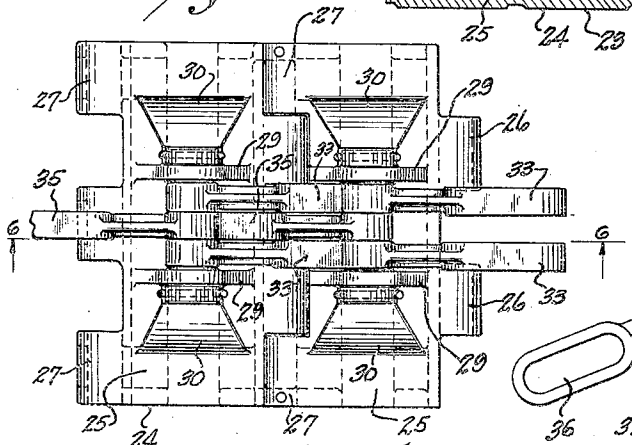


Fig. 6.

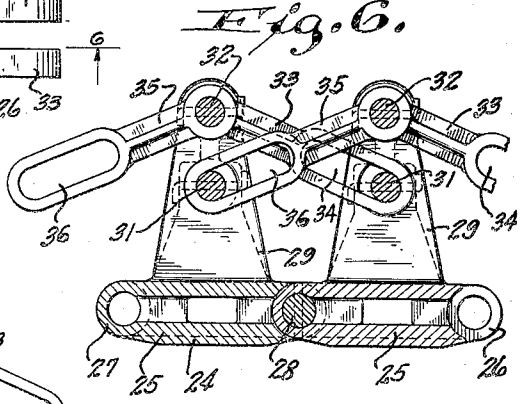
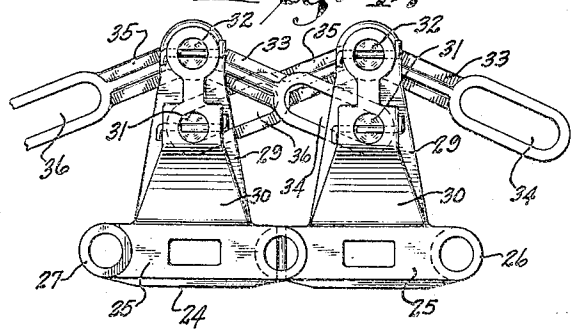


Fig. 4.



INVENTOR.

Frederick A. Streich

BY

Morsell, Kenney & Morsell

ATTORNEYS.

Patented Mar. 14, 1933 1,901,421

UNITED STATES PATENT OFFICE

FREDERICK A. STREICH, OF OSHKOSH, WISCONSIN, ASSIGNOR TO A. STREICH & BRO. COMPANY, OF OSHKOSH, WISCONSIN, A CORPORATION OF WISCONSIN

TRACKLAYING DEVICE

Application filed January 6, 1930. Serial No. 418,949.

This invention relates to improvements in track laying devices.

It is one of the objects of this invention to provide an improved track laying device which presents a rigid surface to the ground and which provides for a high degree of flexibility in the folding motion of the assembly as the track travels around the wheels.

A further object of this invention is to provide a track laying device which is so constructed as to clear itself of dirt with great rapidity.

A further object of this invention is to provide a device of the class described in which the shoes forming the band are so designed that the band is perfectly trussed to provide a rigid ground engaging surface.

A further object of this invention is to provide an improved track laying device having adjustable means for taking up slack in the band.

A further object of this invention is to provide an improved track laying device which is strong and durable and well adapted for the purpose described.

With the above and other objects in view, the invention consists of the improved track laying device and all its parts and combinations, as set forth in the claims, and all equivalents thereof.

In the accompanying drawings, illustrating one complete embodiment of the preferred form of the invention in which the same reference numerals designate the same parts in all of the views:

Fig. 1 is a front elevation of the improved track laying device, one of the wheel sections being removed;

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1;

Fig. 4 is a detail view showing a side elevation of a pair of shoes forming part of the band;

Fig. 5 is a plan view thereof, and

Fig. 6 is a sectional view taken on line 6—6 of Fig. 5.

Referring to the drawings, the numeral 9 designates an elongated supporting member having a central opening 10 for connection to a vehicle. Each end of the member 9 is cylindrical as at 11, and each cylindrical portion has outwardly flanged ends 12 formed with a plurality of threaded perforations 13 therein. Positioned adjacent each end of each cylindrical portion is a plate 14, the said plate having a bore 15 therein and having an annular shoulder 16 which fits within the end of the cylindrical member 11. The annular shoulder varies in width, and the bore 15 of the plate is concentric with the inner periphery of said shoulder but eccentric to the outer periphery thereof. The plate 14 has a plurality of perforations 17 arranged in a circle which is eccentric with respect to the bore 15. The plate is secured to the end of the cylindrical portion 11 by bolts 18 which extend through the perforations 17 of the plate and through the perforations 13 of the adjacent outwardly flanged portion 12. By removing the bolts 18 and by shifting the position of the plate 14, the bore 15 of said plate may be moved from one side to the other of the center of the cylindrical portion 11 for a purpose of adjustment to be hereinafter described.

An axle 19 extends through each cylindrical member and through the bores 15 of the plates. Roller bearing members 20, positioned within the annular shoulders 16 surround said axles. On the outer ends of each axle 19, wheels 21 are mounted, and steel tires 22 are shrunk in place on the peripheries of said wheels.

An endless track or band 23 extends around the wheels as shown in Figs. 1 and 2. The said band comprises a plurality of shoes 24 which are formed and secured together in a novel manner. Each shoe has a base portion 25 formed along one side with perforated hinge extensions 26 and along its opposite side with complementary hinge extensions 27. Pins 28 connect the hinge extensions of one shoe with those of the adjacent shoe.

The upper surface of each shoe is formed with a pair of spaced apart upright members 29 braced by outwardly curved portions 30. Pins 31 and 32 extend between the upright

members. A pair of spaced apart links 33 have their upper ends pivotally mounted on the pin 32, and have their lower ends formed with elongated slots 34 through which the pin 31 of an adjacent shoe extends. Another link 35 has its upper end pivotally connected to the pin 32 between the links 33, and has its lower end formed with a slot 36 through which the pin 31 of the shoe on the other side extends. All of the links thus extend at an angle as shown in Fig. 4, and due to said angular position and to the plurality of connections with each shoe, the band is perfectly trussed, thus assuring a rigid ground engaging surface.

In use of the device, as the band travels around the wheels, the shoes pivot with respect to one another on the pins 28, and the slots 34 and 36 of the links permit sliding movement of the latter on the pins 31, thus allowing the upper portions of the upright members to tilt toward one another. Thus, due to the novel link construction, the travel of the track around the wheels and the straightening out of the band when it leaves the wheels is accomplished without jerking, and there is therefore little strain upon the parts. The upright portions of the shoes are so constructed that they form guards for the wheels, and the curved portions 30 serve to clear the wheels of dirt.

Inasmuch as it is desired to maintain the band in a tight condition on the wheels, so as to always have a rigid ground engaging portion, the eccentric bearing housing has been provided. If, through wear, the band becomes slack, the bolts 18 in the plate 14 may be removed, and the latter given a half turn. Because of the eccentric construction of this plate, the half turn adjustment will bring the axles 19 farther apart and will thus take up considerable slack in the band. A further adjustment may be made by replacing the tires 22 as the latter become worn.

Although only one form of the invention has been shown and described, it is not desired to be limited to the exact showing, as the broad concept of the invention contemplates all changes and modifications as may come within the scope of the claims.

What I claim is:

1. In a track laying device, an endless band comprising a plurality of shoes pivotally connected together, each of said shoes having a pair of upright portions therein, upper and lower pins extending between said upright portions, a pair of spaced-apart links connecting the upper pin of one shoe with the lower pin of an adjacent shoe on one side, and a link between said spaced-apart links connecting said upper pin with the lower pin of the adjacent shoe on the other side, said links being slidable on one of said pins, and said upright portions of each shoe being spaced apart a sufficient distance to accommodate said three links therebetween, said links forming a substantial truss in two directions to prevent inward arcing of the band and the multiplicity of links spreading the trussing effect over a substantial portion of the width of each shoe to prevent edgewise tilting of the band.

2. In a track laying device having a longitudinal support, having a pair of spaced apart wheels rotatably mounted on each end of the support, and having a plurality of shoes pivotally connected together to form an endless band extending around the pairs of wheels, said shoes each having side edges overlapping the peripheries of the wheels; spaced apart upright portions in connection with each shoe, pins extending between said upright portions, links connecting the pins of adjacent shoes, and braces in connection with the outer sides of the upright portions and curving outwardly to a spaced position therefrom and being there connected to a shoe, said braces and upright portions fitting between the pairs of wheels, and the outwardly curved portions of the braces being positioned adjacent the inner sides of the wheels to clear dirt therefrom during movement of the device.

In testimony whereof, I affix my signature.

FREDERICK A. STREICH.