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CREEPING TRACTION MOUNTING FOR RAILWAY TYPE EXCAVATORS

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Fig. 1.

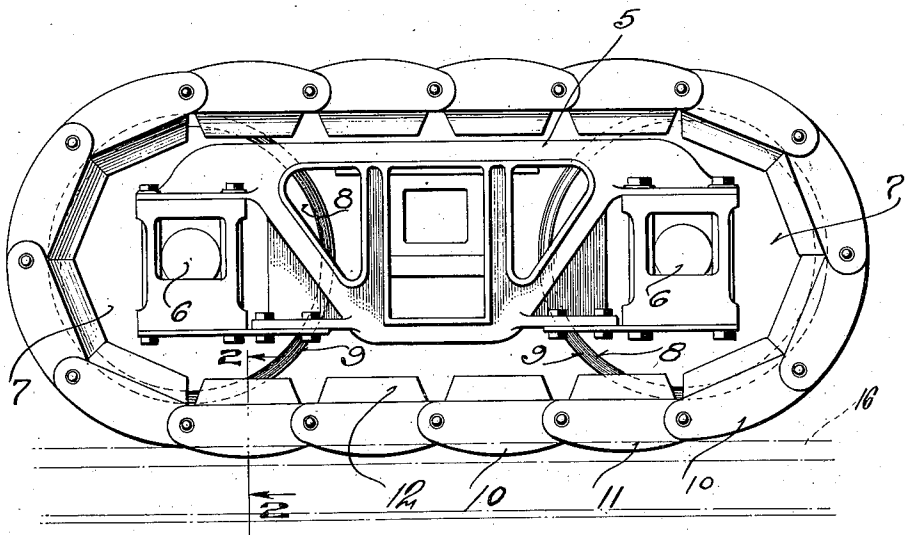
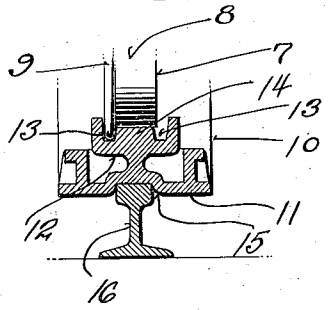


Fig. 2.



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UNITED STATES PATENT OFFICE.

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CREEPING-TRACTION MOUNTING FOR RAILWAY-TYPE EXCAVATORS.

Original application filed August 31, 1921, Serial No. 497,206. Divided and this application filed May 5, 1922. Serial No. 558,677.

This invention relates to an improved creeping traction mounting for excavators, loading machines, derricks, cranes and other similar machines of the railway type.

The present type of machines of the character described are mounted on railway trucks and the supporting tracks therefor are laid in short sections ahead of the forward trucks to enable the machine to move ahead and reach fresh work. This constantly requires the service of several pitmen to carry the short sections ahead and lay on the tracks. The track shifting being dependent on the pitmen to be carried out promptly, results in a great loss of time which is to be avoided.

Therefore, with the above in mind, it is one of the objects of this invention to provide a creeping traction mounting whereby the machine may be advanced while working without requiring the laying of tracks to thus expedite the work, and may be moved from place to place without necessitating the laying of track.

In machines of the class described, it is highly desirable that they be capable of conversion into either a railway type machine or a creeping traction type machine with a minimum of effort in order to facilitate the transportation of the same. It is, therefore, another object of this invention to provide means for permitting the ready converting of a railway type machine into a creeping traction type machine.

A further object of the hereindisclosed invention is to provide what may be termed a combined creeping traction type and railway type machine whereby the same may be advanced by its creeping traction means or upon a railway track, which may be laid in advance thereof, without altering, in any manner, the creeping traction mounting whereby time and labor are saved in shifting the machine from one place of work to another.

A still further object of this invention is to provide a creeping traction mounting for railway type machines in which the railway trucks thereof have an endless traction member trained around adjacent truck wheels to afford suitable ground engaging means so designed as to permit the truck to travel over rails without requiring the removal of said endless traction members.

With the above and other objects in view which will appear as the description proceeds, our invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the claims.

In the accompanying drawing, we have illustrated one complete example of the physical embodiment of our invention constructed according to the best mode we have so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a side view of a railway truck equipped with our improved creeping traction mounting, and

Figure 2 is a fragmentary detail view, partly in section and partly in elevation, taken through Figure 1 on the plane of line 2—2.

This application is a divisional application of our application, Serial Number 497,206, filed August 31, 1921, now Patent No. 1,488,372, issued March 13, 1923 and in the drawing the numeral 5 designates the frame of a railway truck in which are journaled the adjacent ends of shafts 6 having wheels 7 mounted thereon. The wheels 7 are of conventional type having a track engaging tread 8 and a peripheral flange 9.

Adapted to be trained about the adjacent car wheels 7 is a creeping traction mounting which consists of a traction chain 10 formed of a plurality of pivotally connected links 11. The chain links are formed with central, inwardly extending projections 12 having two parallel longitudinally extending channels 13 in their inner faces defining, therebetween, a rest 14 for engagement with the car wheel treads 8, the flanges 9 running in either of the channels 13. By providing two channels 13, chains 10 may be readily reversed, as will be readily obvious.

The links 11 have their tread surfaces centrally longitudinally grooved, as at 15, to receive the head of the supporting rail 16, whereby the machine may be readily moved

over railway tracks without necessitating the removal of chains. With this construction the railway truck is capable of traveling over the ground or over a track without any alteration whatsoever.

After the work has been completed and it is desired to transfer the machine to another location at some distant point, the creeping traction mounting is removed and the machine is then capable of being drawn over the rails at a far greater speed. However, when it is merely desired to shift the position of the machine to new work one-half mile or so away, the creeping traction mountings are not removed, but the machine is transported over the tracks with the rails engaging the channels 15. By this arrangement greater speed is obtained than by transporting the machine over the ground on its creeping traction mountings, thus effecting considerable economy in operation.

What we claim as our invention is:

1. A creeping traction mounting for a railway type machine including an endless traction member, adapted to be trained around the adjacent wheels of a railway truck having standard, flanged wheels, said member consisting of a plurality of connected links, the inner faces of said links being grooved to receive the flanges of the railway truck wheels to prevent disengagement of the traction member therefrom and the outer face of each link being centrally longitudinally grooved to provide a continuous track-way to adapt the traction member for travel over a previously laid track.

2. A creeping traction mounting for a railway type machine including an endless traction member adapted to be trained around the adjacent wheels of a railway truck, said member consisting of a plurality of connected links, the inner faces of said links having two spaced parallel grooves for receiving the flanges of the railway truck wheels to prevent disengagement of the traction member therefrom and the outer faces of said links being grooved to adapt the traction member for travel over a track.

3. A creeping traction mounting for a railway type machine including an endless traction member adapted to be trained around the adjacent wheels of a railway truck, said member consisting of a plurality of connected links, the inner faces of said links having two spaced parallel grooves for receiving the flanges of the railway truck wheels to prevent disengagement of the traction member therefrom, the part of the links between the grooves providing a rest for the railway wheel treads and said traction member being reversible on the railway truck wheels whereby wear on said tread rest may be distributed.

4. In a railway type machine having a standard railway truck provided with longitudinally aligned railway wheels each having a tread surface and a peripheral flange, of means for converting said truck into a creeping traction unit without altering the construction thereof, said means comprising endless traction members trained around adjacent wheels, each traction member including a plurality of pivotally connected links each having a central web formed on its inner surface and provided with two, parallel, spaced, longitudinally extending grooves therein, said grooves defining therebetween a rest upon which the treads of the railway truck wheels about which the members are trained track and the parallel grooves of the links longitudinally registering to provide a pair of continuous tracks in one of which the flange of the adjacent wheels run.

5. In a railway type machine having a standard railway truck provided with longitudinally aligned railway wheels each having a tread surface and a peripheral flange, of means for converting said truck into a creeping traction unit without altering the construction thereof, said means comprising endless traction members trained around adjacent wheels and each including a plurality of pivotally connected links having their outer surfaces longitudinally centrally channeled, and a central web on the inner surface of each link having two, parallel, spaced, longitudinally extending grooves therein, the channels on the outer surface of the links longitudinally registering to provide a track-way for engagement with a previously laid track, the parallel grooves of the links longitudinally registering to provide guide-ways in either one of which the truck wheels track whereby the same may be reversed when one side is worn more than the other, and the portions between said parallel grooves providing rests upon which the treads of said wheels run.

In testimony that we claim the foregoing we have hereunto set our hands at South Milwaukee, in the county of Milwaukee and State of Wisconsin.

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