O. C. REYOUM AND F. A. PUTNAM.

TRACTION CHAIN FOR TRACTORS.

APPLICATION FILED MAR. 14, 1919.

1,409,577.

Patented Mar. 14, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

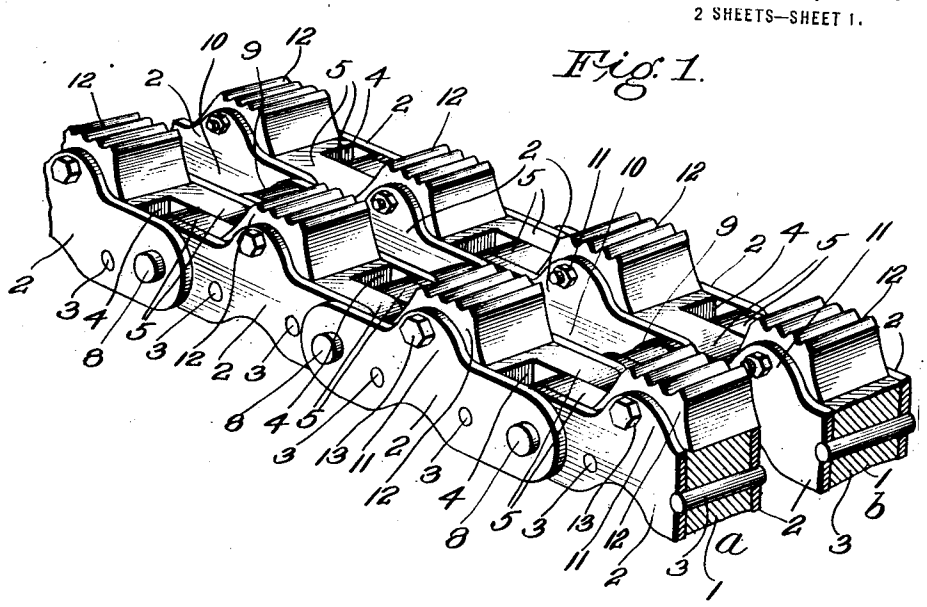


Fig. 2

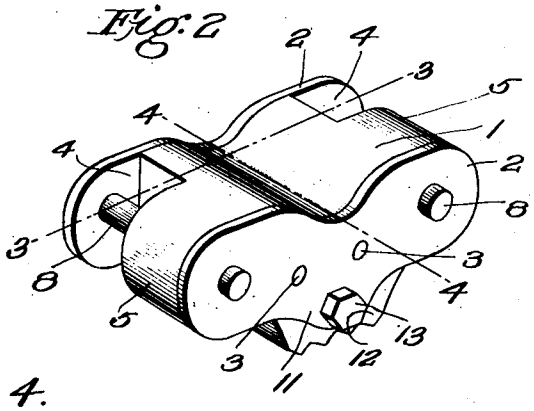


Fig. 4.

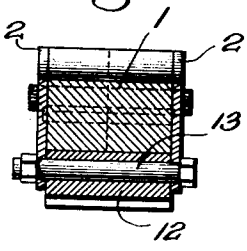
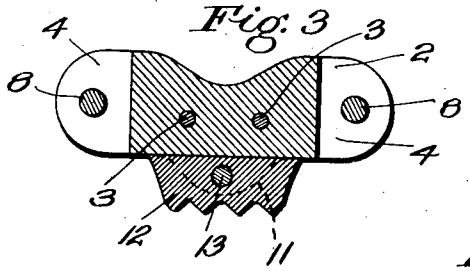


Fig. 3



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2 SHEETS—SHEET 2.

Fig. 5.

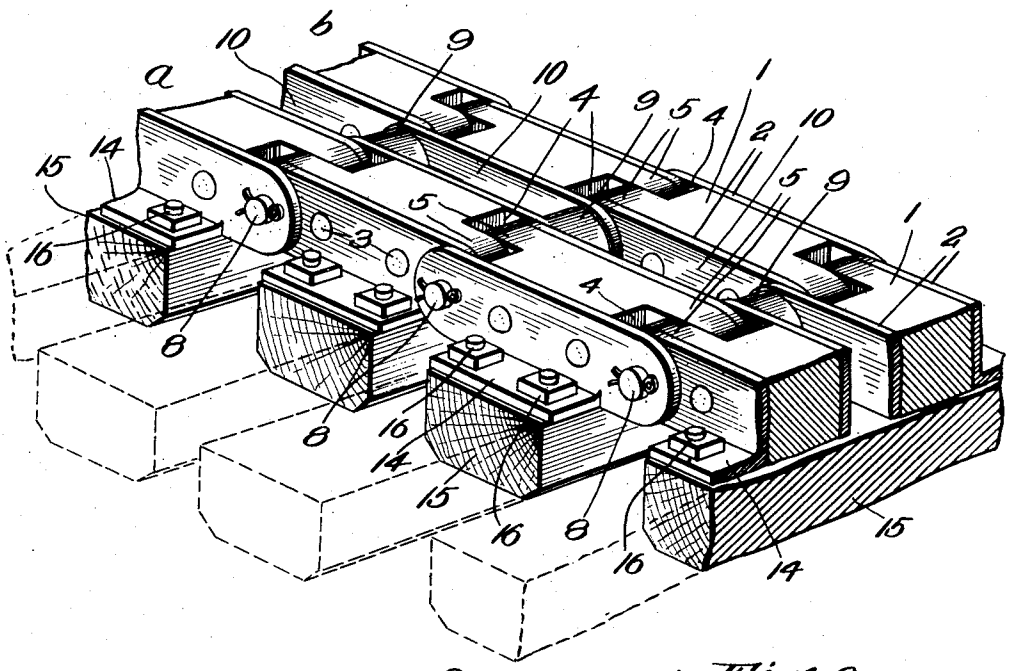
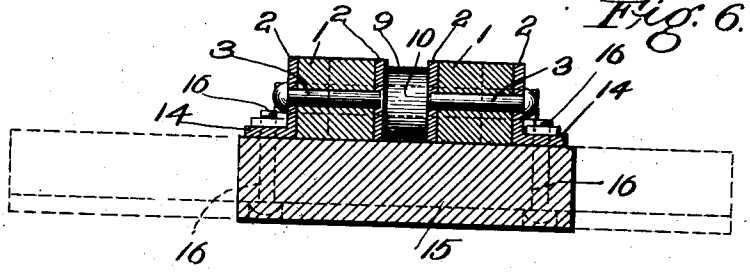


Fig. 6.



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UNITED STATES PATENT OFFICE.

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TRACTION CHAIN FOR TRACTORS.

1,409,577. Specification of Letters Patent. Patented Mar. 14, 1922.

Application filed March 14, 1919. Serial No. 282,641.

To all whom it may concern:

Be it known that we, ORLEY C. REYOUM and FRED A. PUTNAM, citizens of the United States, and residents of Keene, county of Cheshire, State of New Hampshire, have invented an Improvement in Traction Chains for Tractors, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to traction chains for tractors and has for its object to provide a novel chain which is simple and inexpensive to manufacture, which is strong and will resist any pressure or strain to which it is subjected, which may be readily provided with a non-slipping tread surface, and which has other advantages, all as will be more fully hereinafter set forth.

In order to give an understanding of our invention, we have illustrated in the drawings a selected embodiment thereof which will now be described, after which the novel features will be pointed out in the appended claims.

In the drawings, Fig. 1 is a perspective view of a portion of a traction chain embodying our invention;

Fig. 2 is a perspective view of one of the link members showing the opposite side from that shown in Fig. 1;

Fig. 3 is a section on the line 3—3, Fig. 2;

Fig. 4 is a section on the line 4—4, Fig. 2;

Fig. 5 is a view showing a modified form of the invention;

Fig. 6 is a transverse section taken through the chain shown in Fig. 5.

Our improved chain is made up of a plurality of link elements pivotally connected together and each element has a body portion of wood, fiber or similar material and two metal side plates which overlie the body portion and are riveted or otherwise rigidly secured thereto. The manner of making and connecting the wooden body and the side pieces produces a link which will withstand both crushing strains and tensile strains, and the use of wood as the body portion makes a link which is relatively light.

Referring to Figs. 2, 3 and 4 of the drawings which show one of the link elements, the body portion which may be either of wood, fiber or similar material, is indicated at 1 and the two side plates are indicated at 2. The side plates overlie the sides of the wooden body 1 and are rigidly connected thereto by suitable rivets 3 which extend transversely through said side plates and body. The body portion 1 of each link element is formed at each end with a recess 4 to receive a tongue on the next adjacent link element. One simple and satisfactory way of making such recesses and tongues is shown in the drawings wherein each end of each body 1 is cut away for about half its width to make the recess 4 thereby leaving the other half 5 in the form of a tongue. The two side plates 2 extend the full length of the link element so that the recess 4 at said end is formed between the tongue 5 at said end and the end portion 6 of one of the side plates 2. These link elements are assembled by inserting the tongue of each link into a recess of the adjacent link, as seen clearly in Fig. 1, and connecting the links by a pivot pin 8. When the links are thus assembled, each tongue of each link overlaps a tongue of an adjacent link and the ends of the side plates 2 of adjacent links overlap each other. The pivotal connecting pin 8 extends through not only the overlapping tongues, but also through the overlapping portions of the side plates. The metal side plates 2 thus take the tensile strain to which the chain is subjected and the wooden filling members take a considerable portion of the crushing strain.

Where it is desired to make a traction element which is adapted to co-operate with sprocket wheels, we propose to employ two or more lines of connected links which are connected by the same pivot pins 8 but which are spaced from each other to provide spaces to receive the teeth of the sprocket wheel. Such an arrangement is shown in Fig. 1 wherein the two lines of connected links are indicated at *a* and *b*, respectively, these being so arranged that the pivot pins 8 extend through the links of both lines. Suitable spacing rollers 9 are placed on the pivot pins 8 between the two lines of links *a* and *b*, said rollers spacing the lines from each other and providing the spaces 10 to receive the teeth of the sprocket wheel.

It is sometimes desirable that a traction chain for tractors should have a non-skid or non-slipping surface. Our invention enables us to provide such a surface in various ways. In Figs. 1, 2 and 3, each side plate is shown as having the extension 11, the exten-

sions on the two side plates for each link member forming between them a space to receive a tread block 12. This tread block can be detachably secured to the link by means of a bolt 13 which extends transversely through the extensions 11 and said block. A tread block 12 may thus be applied to all or any desired number of the links and the tread block may have a tread surface of any desired shape.

In Figs. 5 and 6 we have shown a construction in which the side plates on the exterior sides of the chain are provided with lateral extensions 14 to which the removable tread blocks 15 are secured. These tread blocks may be in the form of wooden or metal slats or bars which extend transversely of the chain and are secured to the extensions 14 by means of bolts or screws 16. These detachable treads may be of a width equal to the chain or may be made longer as indicated in dotted lines Fig. 5, thereby to provide a tread surface of added width if such is necessary.

We claim:

A traction chain for tractors comprising a plurality of link members, each having a body of wood and two metal plates of the same length overlying opposite sides of said body and riveted thereto, said plates extending the full length of the body, the body portion of each link being shaped at each end to form a recess and a tongue, each tongue of each link entering the recess formed in an adjacent link whereby the metal plates of adjacent links have an overlapping relation and a substantially continuous tread surface is provided, and pivot pins extending through the overlapping tongues and metal plates and pivotally connecting the links together.

2. A traction chain for tractors comprising a plurality of connected link members, each having a body of wood which is cut away at each end for a portion of its width whereby one side face is longer than the other, and two metal plates overlying and secured to the sides of said body, said plates both being of a length equal to that of the longer side of the body whereby the ends of the plate that are secured to the shorter side of the body extend beyond said side and thereby form a recess in the link member, the end portion of the longer side of each link being received in a recess of the next adjacent link whereby a substantially continuous tread surface is provided, and pivot pins connecting said link members.

In testimony whereof, we have signed our names to this specification.

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FRED A. PUTNAM.