G. E. WIGHTMAN.

TIRE CHAIN TIGHTENER.

APPLICATION FILED AUG. 6, 1915.

1,204,919. Patented Nov. 14, 1916.

Fig. 1

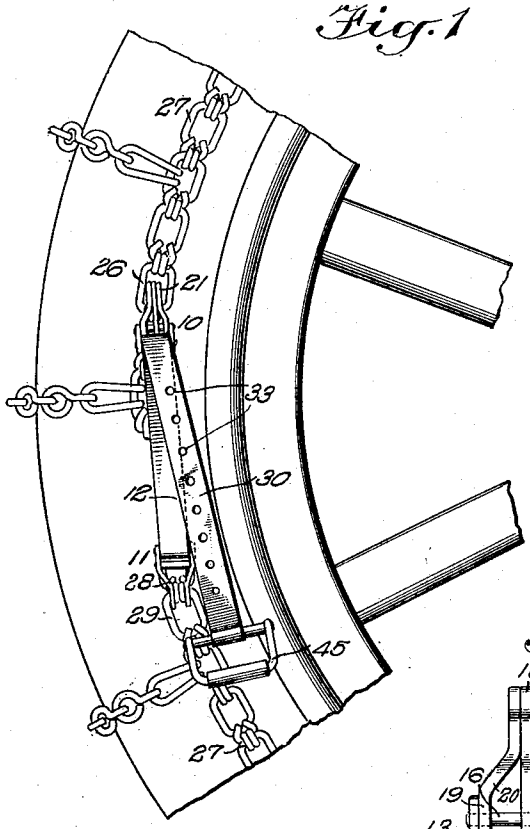


Fig. 2.

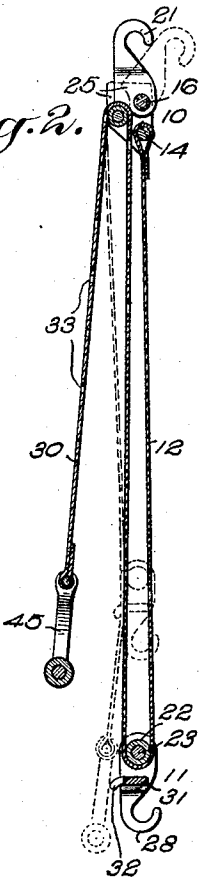


Fig. 3.

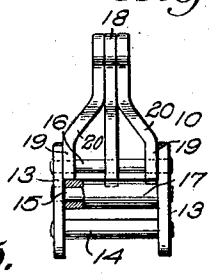


Fig. 4.

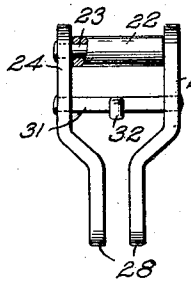
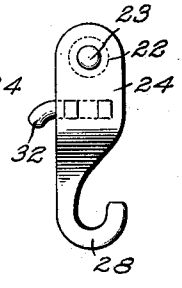


Fig. 5.



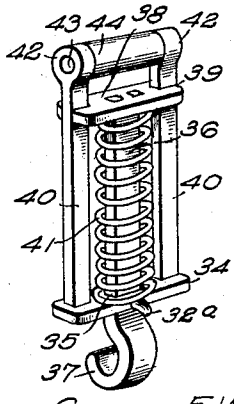


Fig. 6.

WITNESSES

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TIRE-CHAIN TIGHTENER.

1,204,919. Specification of Letters Patent. Patented Nov. 14, 1916.

Application filed August 6, 1915. Serial No. 43,960.

To all whom it may concern:

Be it known that I, GEORGE E. WIGHTMAN, a citizen of the United States, and a resident of Portland, in the county of Multnomah and State of Oregon, have invented a new and Improved Tire-Chain Tightener, of which the following is a full, clear, and exact description.

My invention has for its object to provide a tire chain tightener which may be used to pull ends of a chain in the direction of each other and hold them while they are secured together by a link.

The tire chain tightener is constructed with a tackle, to one block of which a hook is pivoted which has a shoulder for normally engaging the strap forming a part of the tackle to press it against a member of the block and thereby secure the strap against movement through the block. The other block is provided with a hook which may be disposed in one of a number of openings in the tackle strap to hold the blocks relatively to each other while the link is secured to the ends of the chain.

Another object of the invention is to provide one of the blocks with resilient means for holding its hook yieldingly inwardly.

Additional objects of the invention will appear in the following specification in which the preferred form of my invention is disclosed.

In the drawings similar reference characters refer to similar parts in all the views in which—

Figure 1 is a view showing a fragment of a wheel provided with a chain, to the ends of which my tightener is secured for drawing the ends together so that they may be connected together by a link; Fig. 2 is a sectional view showing my tightener in elevation; Fig. 3 is a view partially in section illustrating the construction of one of the blocks; Fig. 4 is a view partially in section illustrating the construction of the other block; Fig. 5 is an end view of Fig. 4; and Fig. 6 is a perspective view showing a modified form of the block to be used with my tightener.

By referring to the drawings it will be seen that my tire chain tightener is constructed in the form of a tackle having a block 10 and another block 11, these blocks being connected by a belt 12. The block 10 has two side plates 13 which are secured together by the bolts or rivets 14, 15 and 16, a roller 17 being mounted on the rivet or bolt 15. Pivoted to the rivet or bolt 16 there is a central member 18 and side members 19, the side members 19 being bent inwardly at 20 so that their upper ends engage the central member 18, the two members 19 and the central member 18 having cutaway portions or being bent over to form hooks 21 which are illustrated in Fig. 2 of the drawings. The belt or strap 12 is secured to the bolt 14, this belt or strap 12 passing under the roller 22 which is mounted on the rivet or bolt 23 connecting the side plates 24 of the lower block 11, the belt or strap 12 then passing up over the roller 17.

By referring to Fig. 2 of the drawings it will be seen that the members 19 and 18 which are provided with the hooks 21, have shoulders 25 which normally seat against the belt or strap 12 at the roller 17 so that when the members 18 and 19 which are provided with the hooks 21 are in normal position, the shoulders 25 will press the belt or strap 12 against the roller 17 to prevent the movement of the belt or strap 12 relatively to the blocks 10 and 11. When the hooks 21 are secured to a link 26 at one end of the chain 27, and the hooks 28 with which the block 11 is provided, are secured to the link 29 of the said chain 27, the links 26 and 29 may be drawn together by pulling on the fall 30 and that when the fall 30 is pulled, it will serve to draw the block 10 outwardly, thereby moving the block relatively to the hooks 21 so that the roller 17 will be spaced from the shoulders 25. However, when the fall 30 is no longer pulled outwardly and the fall is moved to a position substantially parallel with the other parts of the tackle, the roller 19 will again move to normal position where the shoulders 25 will press against the belt or strap 12. As an additional means of securing the fall 30 while the links 26 and 29 are connected by another link, I provide a cross member 31 on the block 11 with a pin 32 which may be inserted in one of the openings 33 in the belt or strap 12.

In Fig. 6 I illustrate a resilient block which may be used in place of the block 11, this resilient block having a plate 34 with an opening 35 in which a shank 36 on a hook 37 is disposed, this shank 36 being secured to the guide plate 38 which has guide openings 39 in which are disposed guide

bars 40 which extend upwardly from the plate 34. A spring 41 is disposed around the shank 36 for holding the plate 38 yieldingly upward and away from the plate 34. The terminals of the guide bars 40 are provided with bearings 42 in which are journaled the ends 43 of a roller 44, which serves the same purpose as the roller 22 on the block 11. Projecting from the plate 34 there is a pin 32^a which may be inserted in one of the orifices 33 in the belt or strap 12. A handle 45 is secured to the end of the fall 30.

Having thus described my invention I claim as new and desire to secure by Letters Patent:

1. In a tire chain tightener, a tackle having a block with a member around which a strap is normally disposed, a hook pivoted to the block, the fulcrum of the hook and the said member of the block being disposed one in the rear of the other, and a shoulder extending from the hook for pressing against the said member of the block for the purpose specified.

2. In a tire chain tightener, a tackle having a block with a roller and a strap passing around the roller and a hook pivoted to the block in front of the roller and having a shoulder which normally rests on the strap at the roller.

3. In a tire chain tightener, a tackle having two blocks, one of the blocks having a member around which a strap is normally disposed, a strap with an orifice disposed around the said member, a hook pivoted to the last mentioned block, the fulcrum of the hook and the said member being disposed one in the rear of the other, a shoulder on the hook for pressing the strap against the said member, and a pin on the other block adapted to be inserted in the orifice in the strap.

In testimony whereof I have signed my name to this specification in the presence of the two subscribing witnesses.

GEORGE ERNEST WIGHTMAN.

Witnesses:

IMO DE LAY,

PETER M. JOHNS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."