F. C. CARSTARPHEN.

LUMBER CARRIER.

APPLICATION FILED MAR. 2, 1922.

1,436,151.

Patented Nov. 21, 1922.

3 SHEETS—SHEET 1.

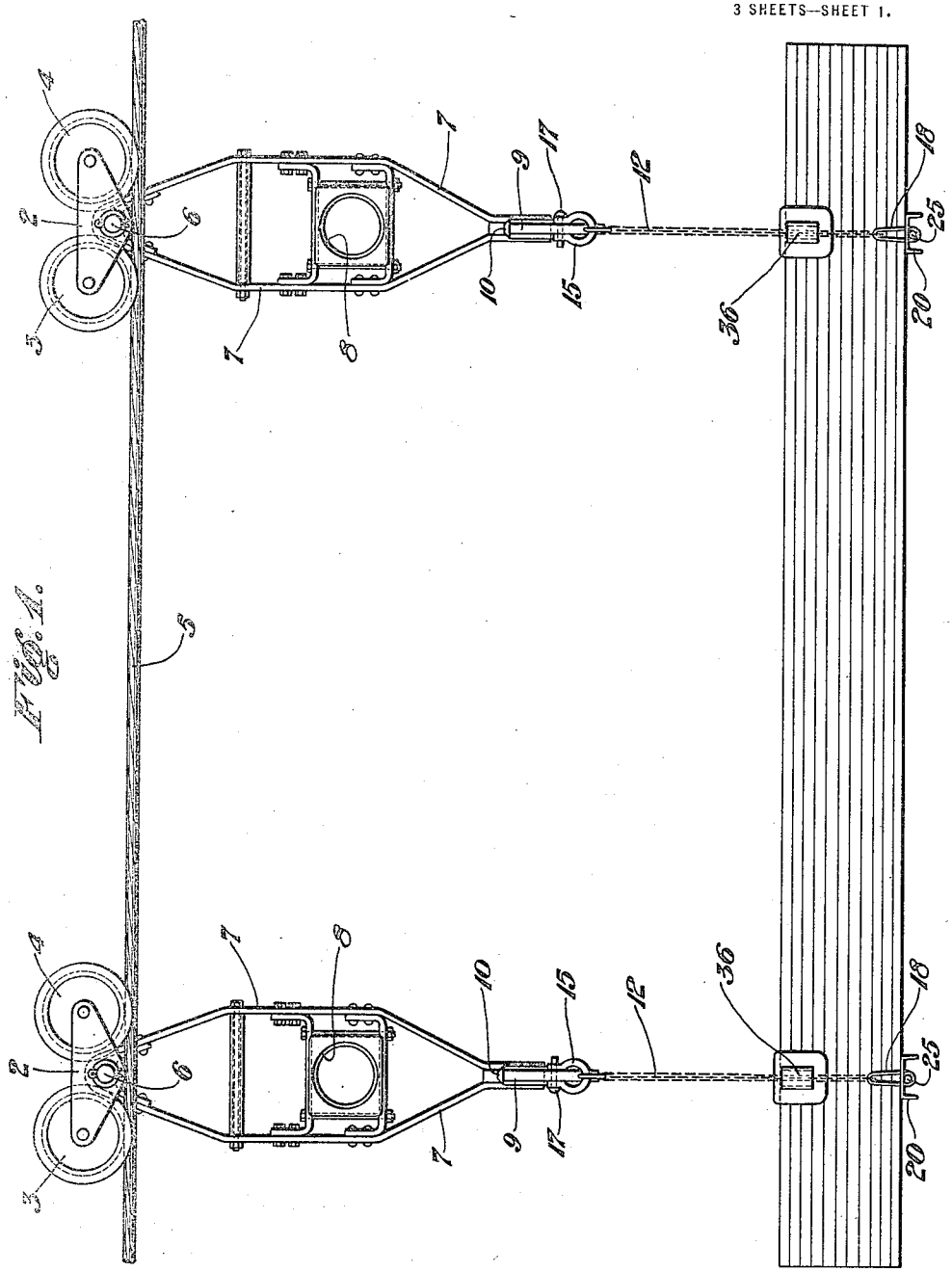


Fig. 1.

Witnesses:
Edwin Trueb

Inventor:
FREDERICK C. CARSTARPHEN,
by: D. Anthony Usina
his Attorney.

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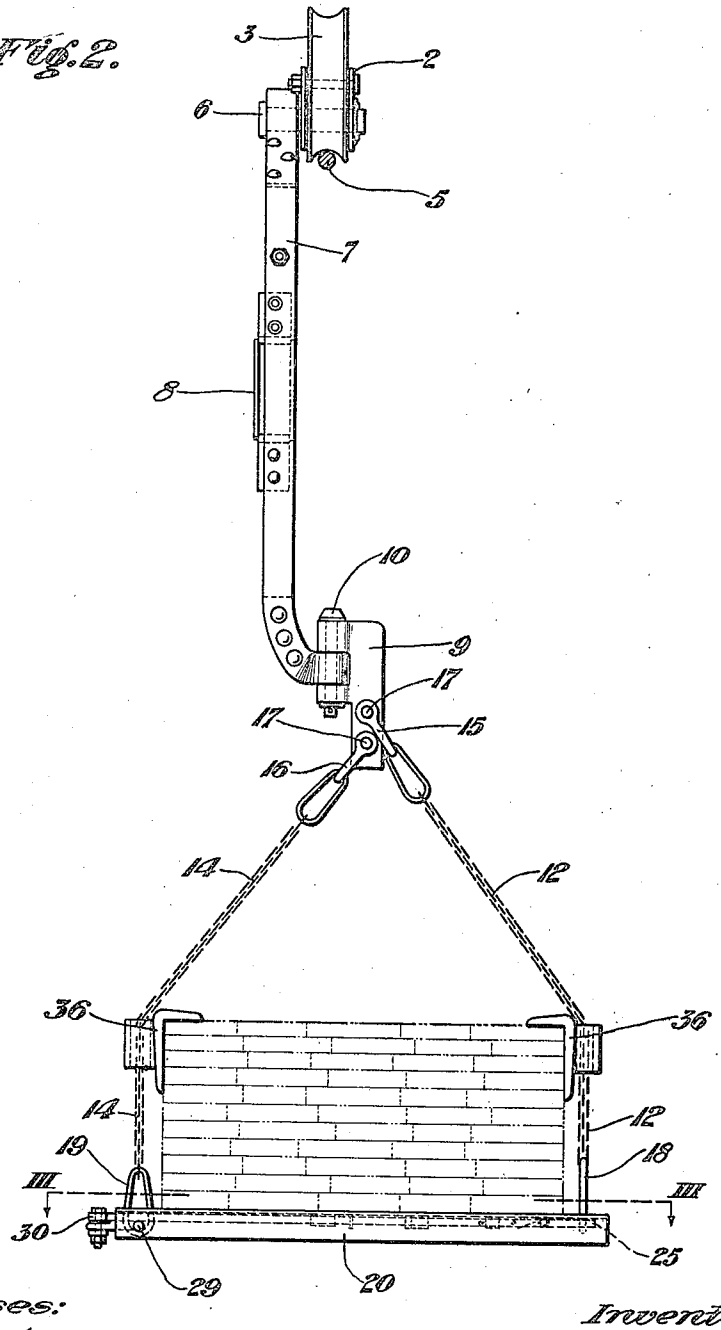
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3 SHEETS—SHEET 2.

Fig. 2.



Witnesses:
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3 SHEETS—SHEET 3.

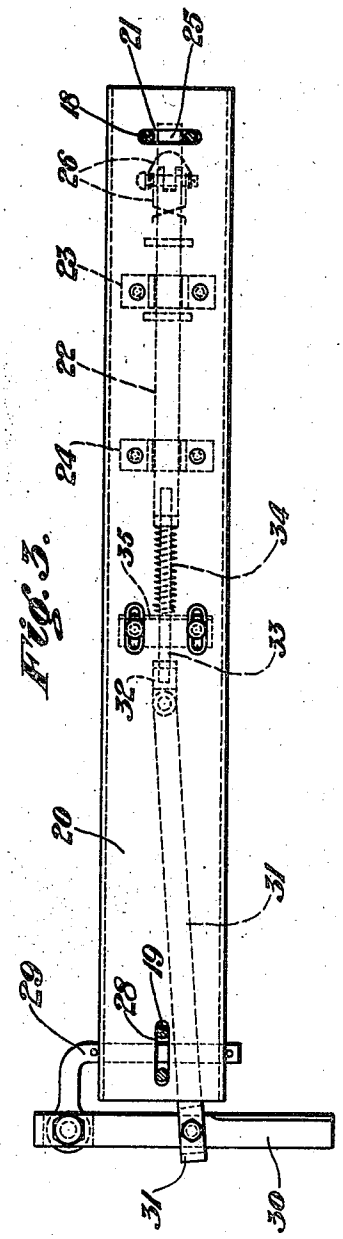


Fig. 3.

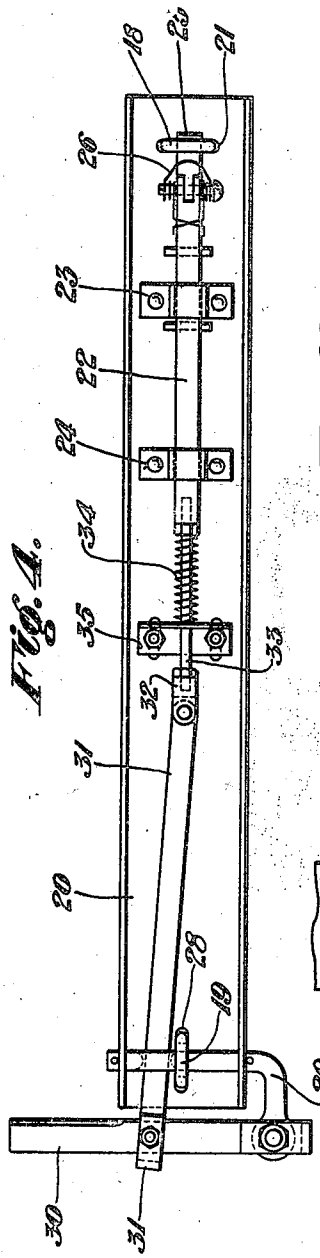


Fig. 4.

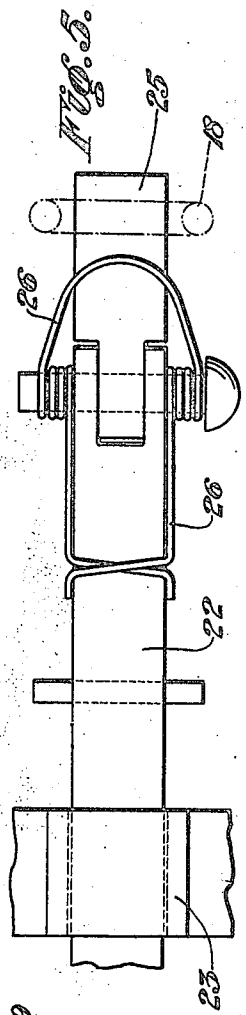


Fig. 5.

Witnesses:

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Patented Nov. 21, 1922. 1,436,151

UNITED STATES PATENT OFFICE.

FREDERICK C. CARSTARPHEN, OF TRENTON, NEW JERSEY, ASSIGNOR TO THE AMERICAN STEEL AND WIRE COMPANY OF NEW JERSEY, A CORPORATION OF NEW JERSEY.

LUMBER CARRIER.

Application filed March 2, 1922. Serial No. 540,455.

To all whom it may concern:

Be it known that I, FREDERICK C. CARSTARPHEN, a citizen of the United States, and resident of Trenton, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Lumber Carriers, of which the following is a specification.

This invention relates to aerial tramways and more particularly to lumber carriers for such tramways, and has for one of its objects the provision of an improved carrier of this class that will adequately support packages of lumber and timbers of varying cross section and length.

Another object is to provide a carrier that will be sufficiently flexible to negotiate both vertical and horizontal curves without injury or strain to any parts.

Another object is to provide a carrier that will exert sufficient side pressure on the package of lumber to prevent the interior members from sliding out when the carrier is ascending or descending grades.

A further object is to provide a carrier that will permit of rapid loading and unloading.

A still further object is to provide a carrier having the novel design, construction, and combination of parts described in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the carrier.

Figure 2 is an end elevation thereof.

Figure 3 is a top plan of one of the sling bolsters.

Figure 4 is a bottom plan of one of the sling bolsters.

Figure 5 is a fragmentary detail of the spring catch end of the locking bolt.

The carrier as a whole is composed of two identical units, each of which comprises a carriage and sling portion, such units being adapted to be spaced along the length of a lumber package. Since the units are of identical construction only one will be described in detail, and the same reference numerals will be applied to like parts of both.

The carriage comprises a body portion 2 having grooved wheels 3 and 4 journaled adjacent each end thereof, adapted to travel on the cable track member 5. A hanger pin 6 is mounted midway between the ends of the body portion 2 and projects outwardly from the one side thereof. A hanger 7 is pivotally suspended from the projecting portion of the pin 6. The hanger 7 is provided with a trunnion box 8 for the reception of a suitable traction rope grip such as shown in my Patent No. 1,218,372, dated March 6, 1917, or any other well known traction rope grip.

The lower end of the hanger 7 is projected inwardly so as to underlie the body portion of the carriage, and is provided with a hanger bearing 9 which is pivotally mounted on a pin 10 for horizontal pivotal movement relative to the hanger.

A pair of supporting sling chains 12 and 14 having anchor shackles 15 and 16, respectively on their upper ends are pivotally secured to the hanger bearing 9 by pins 17 which pass through suitable eyes in the shackles and holes in the bearing.

The chains may be of any desired length, and terminate at their lower ends in elongated links 18 and 19, respectively, which are adapted to be secured to and support a bolster member 20.

The chain 12 and its link 18 are adapted to be detachably secured to the bolster 20 so as to provide for quickly securing the sling around or detaching it from a package of lumber. The bolster 20 is provided with an elongated transverse slot 21 through which the link 18 is adapted to pass, and a locking bolt 22 is mounted on the under side of the bolster to engage and lock the link 18 in position.

The bolt 22 is mounted in guides 23 and 24 for reciprocatory movement, and is provided at its forward end with a spring pressed catch or break-away nose portion 25 which is pivotally secured to the main bolt portion and normally held in alined position by the spring 26. The link 18 as it passes through the slot 21 depresses or breaks down the nose portion 25 of the bolt 22 until the link penetrates sufficiently to allow the nose to clear the bottom thereof when the spring 26 will force the nose upwardly through the link. It will, therefore, be seen that to load the carrier, it is only necessary to slip the bolster 20 beneath a prepared package of lumber and force the link 18 into locking engagement with the bolt 22.

The other chain 14 has its link 19 passed through an elongated slot 28 extending

longitudinally of the bolster, and is permanently secured thereto by a pin 29 which is passed through suitable holes in the sides of the bolster and through the link 19.

The one end of the pin 29 extends outwardly at right angles to the main portion thereof, to a point beyond the end of the bolster 20, and has a lever 30 pivotally mounted thereon. A pull bar 31 is pivotally connected at one end to the lever 30 and has its other end pivotally connected to a short link 32 which in turn is connected to the bolt 22 by an adjusting bar 33. A coil spring 34 is mounted on the bar 33 and has one end bearing against the bolt 22 and the other end abutting an adjustable stop member 35. The spring 34 is adapted to normally hold the bolt 22 in its locked or extended position. When it is desired to retract the bolt 22 to release the chain 12 and consequently the lumber package, it is only necessary to pull on the lever 30, thus pulling bars 31 and 32 and bolt 22 longitudinally of the bolster and releasing the link 18.

The chains 12 and 14 are each provided with angle guards 36 which are adapted to engage the top and sides of the package of lumber and which are slidably mounted on the chains. The guards 36 protect the edges of the lumber, and because of the angle developed in the chain, exert sufficient pressure on the sides of the assembled lumber to prevent slipping of the interior members.

It will be readily apparent from reading the foregoing specification that a lumber carrier constructed as therein described will be a great improvement over the prior art. The hanger is pivoted to permit oscillation in the vertical plane parallel with the track cable, and the sling is suspended from a bearing mounted for rotation on a horizontal plane, so that the carrier may readily negotiate vertical or horizontal curves or a combination thereof. The sling of the present carrier is adapted to hold varying sizes of lumber packages, and may be quickly attached to and detached from the package.

The above and many other advantages will be readily apparent to those skilled in the art.

I claim:—

1. In a lumber carrier, a flexible sling comprising a pair of flexible side members, a rigid bolster, at least one of said side members terminating in a link member at its lower end, and a spring pressed catch mounted on said bolster for reciprocation longitudinally thereof and adapted to move into and through said link to and detachably lock said side member to said bolster.

2. In a lumber carrier, a flexible sling comprising a pair of flexible side members, a rigid bolster, at least one of said side members terminating in a link member at its lower end, and a spring pressed catch on said bolster adapted to engage said link and detachably lock said side member to said bolster.

3. In a lumber carrier, a flexible sling comprising a pair of flexible side members, a rigid bolster having an elongated slot adjacent one end, one of said side members being permanently secured to said bolster and the other of said side members terminating in an elongated link adapted to pass through the slot in said bolster and to be detachably locked in position, and a spring catch on said bolster adapted to engage said link and lock it in position.

4. In a lumber carrier, a flexible sling comprising a pair of flexible side members, a rigid bolster having an elongated slot adjacent one end, one of said side members being permanently secured to said bolster and the other of said side members terminating in an elongated link adapted to pass through the slot in said bolster and to be detachably locked in position, a spring catch on said bolster adapted to engage said link and lock it in position, and means for releasing said catch from said link.

5. In a lumber carrier, a flexible sling comprising a pair of flexible side members, a rigid bolster, at least one of said side members terminating in an elongated link at its lower end, a locking bolt mounted for reciprocatory movement on said bolster and adapted to engage said link to detachably connect said side member to said bolster, and lever mechanism for quickly withdrawing said bolt from said link.

6. In a lumber carrier, a flexible sling comprising a pair of flexible side members, a rigid bolster having an elongated slot adjacent one end, one of said side members being permanently secured to said bolster and the other of said side members terminating in an elongated link adapted to pass through the slot in said bolster and to be detachably locked in position, a locking bolt mounted for reciprocatory movement on said bolster, said bolt being provided with a downwardly breaking spring pressed nose adapted to normally underlie said slot and to be broken downwardly by said link when said link is passed through said slot and to automatically move into said link to detachably connect said side member to said bolster, and lever mechanism adapted to reciprocate said bolt to quickly withdraw it from said link.

In testimony whereof I have hereunto set my hand.

FREDERICK C. CARSTARPHEN.