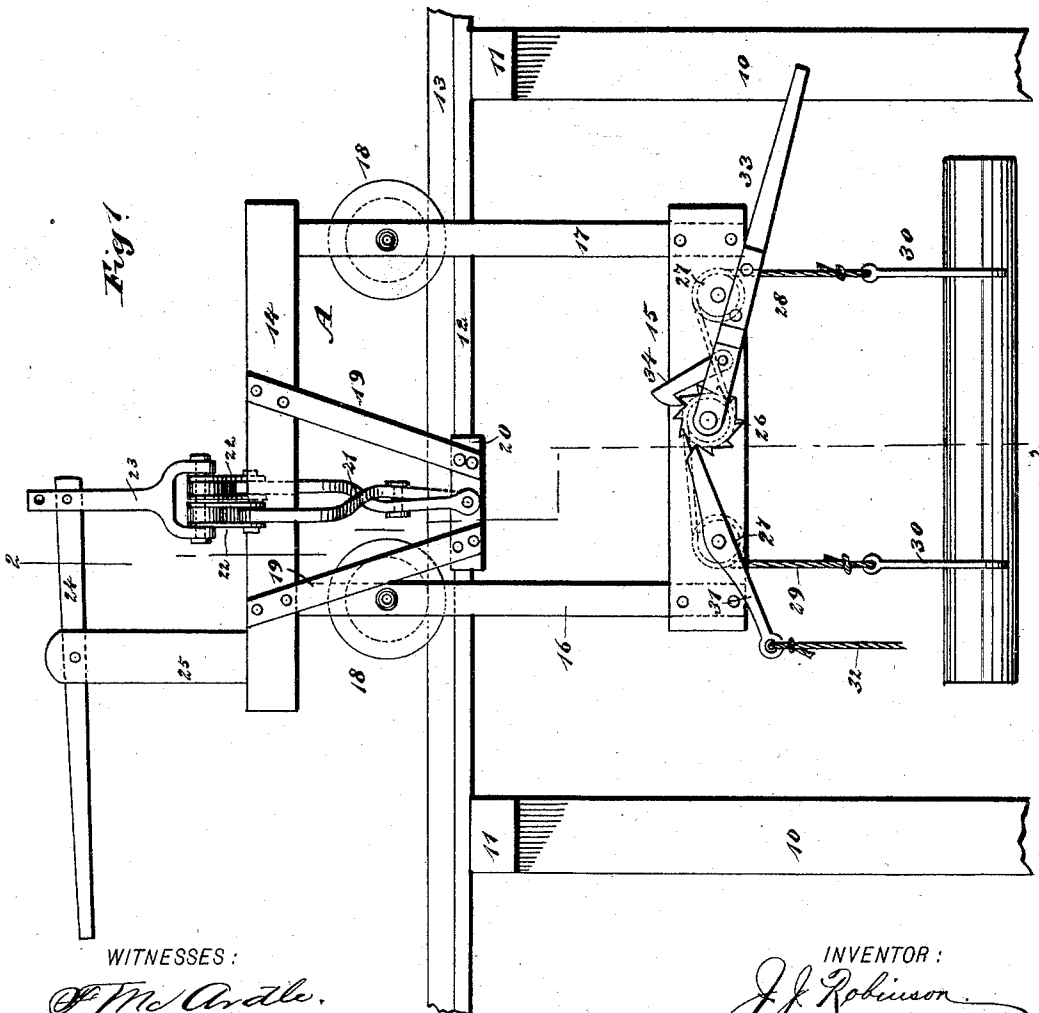
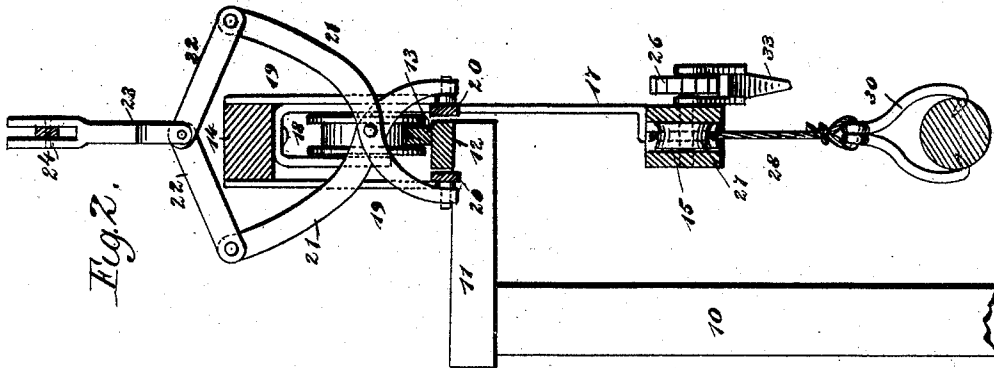


(No Model.)

J. J. ROBINSON.
ELEVATED CARRIER.

No. 476,072.

Patented May 31, 1892.



WITNESSES :

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UNITED STATES PATENT OFFICE.

JAMES J. ROBINSON, OF RIVER VIEW, WEST VIRGINIA.

ELEVATED CARRIER.

SPECIFICATION forming part of Letters Patent No. 476,072, dated May 31, 1892.

Application filed November 11, 1891. Serial No. 411,621. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. ROBINSON, of River View, in the county of Fayette and State of West Virginia, have invented a new and useful Improvement in Elevated Carriages, of which the following is a full, clear, and exact description.

My invention relates to an improvement in elevated carriages especially adapted for use in logging and in the conveying of heavy bodies from point to point at an elevation from the ground.

The object of the invention is to provide a track and a carriage of novel construction, the track being capable of erection upon ground of any character and in an economic and expeditious manner, and also in a manner whereby additions may be made or parts may be taken from the track without disturbing the main portion of it which may at that time be in use. The carriage is so constructed that it is simple and capable of convenient manipulation, and it is provided with a brake whereby its progress upon the track may be instantly checked or its speed modified, and the carriage is also further provided with a mechanism whereby the load to be carried may be lifted bodily from the ground and carried up as high as desired above the ground with a minimum degree of labor.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a section of the track and a side elevation of the carriage located upon the track, and Fig. 2 is a vertical section taken practically on the line 2 2 of Fig. 1.

In the construction of the track a number of posts or uprights 10 is employed, planted in the ground and braced to stand thereon in any suitable or approved manner, the posts having attached thereto beams or plates 11 in a manner to extend at a right angle outward beyond one side, as is best shown in

Fig. 2. These beams or plates 11 are adapted to support stringers 12, the said stringers being spliced or united in any manner known to the trade, and upon these stringers the rails 13 of the track are spiked or otherwise bolted. These rails are ordinarily made of wood; but other material may be employed, and in cross-section any desired shape may be given to the rails. It will thus be observed that no especial kind or character of timber is necessary in the construction of the track. Therefore it may be constructed from any material that may be at hand—as, for instance, the logs in the woods convenient to the line of a proposed track may be used for the major portion of the structure. It will be further observed that the track, resting upon stringers, as it does, will be firmly supported throughout its entire length and that it will not sag or be liable to the effect of tension or of expansion and contraction that a cable is subjected to. Again, it will be noticed that as the track is virtually constructed in sections, each section comprising that portion contained between two opposed posts, uprights in any desired number of sections may be added to or removed from the main line without interfering with the operation of the remaining portion of the track.

The frame of the carriage A consists, primarily, of a top beam 14, a bottom 15, somewhat box-like in general contour, and connecting-bars 16 and 17, uniting the upper and lower portions of the frame, the said bars being preferably vertical and so shaped that for attachment to the bottom 15 they extend outward and upward essentially parallel with the outer and front face of the bottom, and where they are connected to the top the bars are bent downward upon themselves, forming thereby an upper practically inverted-U section, and between the members of these sections of the bars peripherally-grooved wheels 18 are pivoted, the said wheels being adapted to travel upon the rails 13, as shown in the drawings. When the carriage is thus placed in position upon the track, its bottom section 15 will be some distance below the same.

A hanger 19 is secured to each side of the top beam, which hangers are of spring material and extend downward at each side of the

stringers 12. Each hanger preferably consists of two spring-bars arranged somewhat in V shape, their upper ends being firmly attached to the beam 14 and their lower ends being free; but the lower ends of the members of the hangers are connected by brake-shoes 20, said shoes when pressed inward being adapted to bind upon opposite sides of the stringers over which the carriage is passing.

The manipulation of the brake-shoes is accomplished through the medium of tong-like levers 21, the said levers at their lower ends each being attached to a brake-shoe, and at their upper ends the members of the tong-like levers are connected by links 22, the said links being attached by means of a third link 23 with one end of a lever 24, which lever is fulcrumed upon a suitable post 25, located upon and attached to the beam 14 of the carriage-frame. By pressing downward the lever 24 the brake-shoes are carried in direction of each other and are forced to a positive contact with opposite sides of the stringer over which the carriage is passing, thus admitting of an instant check of the carriage. The brake-shoes may be used to retard the speed of the carriage by causing the brake-shoes to grip more or less firmly on the stringers. It is evident that a most firm contact between the brake-shoes and the stringers may be obtained, as the levers 24 may be made of any desired length.

In the lower portion 15 of the frame a drum is centrally located, having attached to its outer end a ratchet-wheel 26, and at each side of the drum within this lower section a friction-pulley 27 is located, and cables or chains 28 and 29 are attached to the drum and are passed therefrom in opposite directions down over the friction-rollers 27, and to the lower ends of these chains or cables gripping devices 30 of any approved construction are attached. The ratchet-wheel is engaged by a suitable dog 31, pivoted to one side of the lower section of the frame and controlled by a rope 32, leading downward from its outer end, and the drum is manipulated by turning the ratchet-wheel 26, which is accomplished through the medium of a lever 33, pivoted to move independently of the ratchet-wheel, which lever is provided with a dog 34, capable of engaging with the ratchet-wheel

and of being carried out of engagement therewith. When the dog and the pawl are disengaged from the ratchet-wheel, the gripping devices may be drawn downward to the ground to receive their load, and when the load is to be elevated the dog and the pawl are thrown in engagement with the ratchet-wheel and the lever 33 is manipulated, so that the dog turns the ratchet, the pawl acting as a detent, and by this means the load may be conveniently and expeditiously carried upward any desired distance from the ground that the height of the carriage will permit.

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

1. In elevated carriages, the combination, with a frame provided with wheels adapted to travel upon a rail, of spring-controlled brake-shoes projected downward from the opposite sides of the frame, the said brake-shoes being practically in horizontal alignment, tong-like levers attached to the brake-shoes, a main lever, and a link connection between the main lever and the tong-like levers, as and for the purpose set forth.

2. In an elevated carriage, the combination, with the lower portion thereof, of a drum journaled in said lower portion, friction-wheels located at opposite sides of the drum, a ratchet-wheel attached to the drum, a lever having movement independently of the ratchet-wheel and drum and provided with a dog adapted for engagement with said ratchet-wheel, a pawl also engaging with the ratchet-wheel, and cables leading from the drum in opposite directions over the friction-pulleys, the said cables being adapted to receive gripping devices, as and for the purpose set forth.

3. An elevated carriage provided with a drum having an attached ratchet-wheel, friction-pulleys at each side of the drum, a lever operating independently of the drum and ratchet-wheel, a dog carried by the lever and engaging with the ratchet-wheel, a detent also engaging with the ratchet-wheel, and cables leading from the drum in opposite directions over the friction-pulleys, substantially as described.

JAMES J. ROBINSON.

Witnesses:

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