

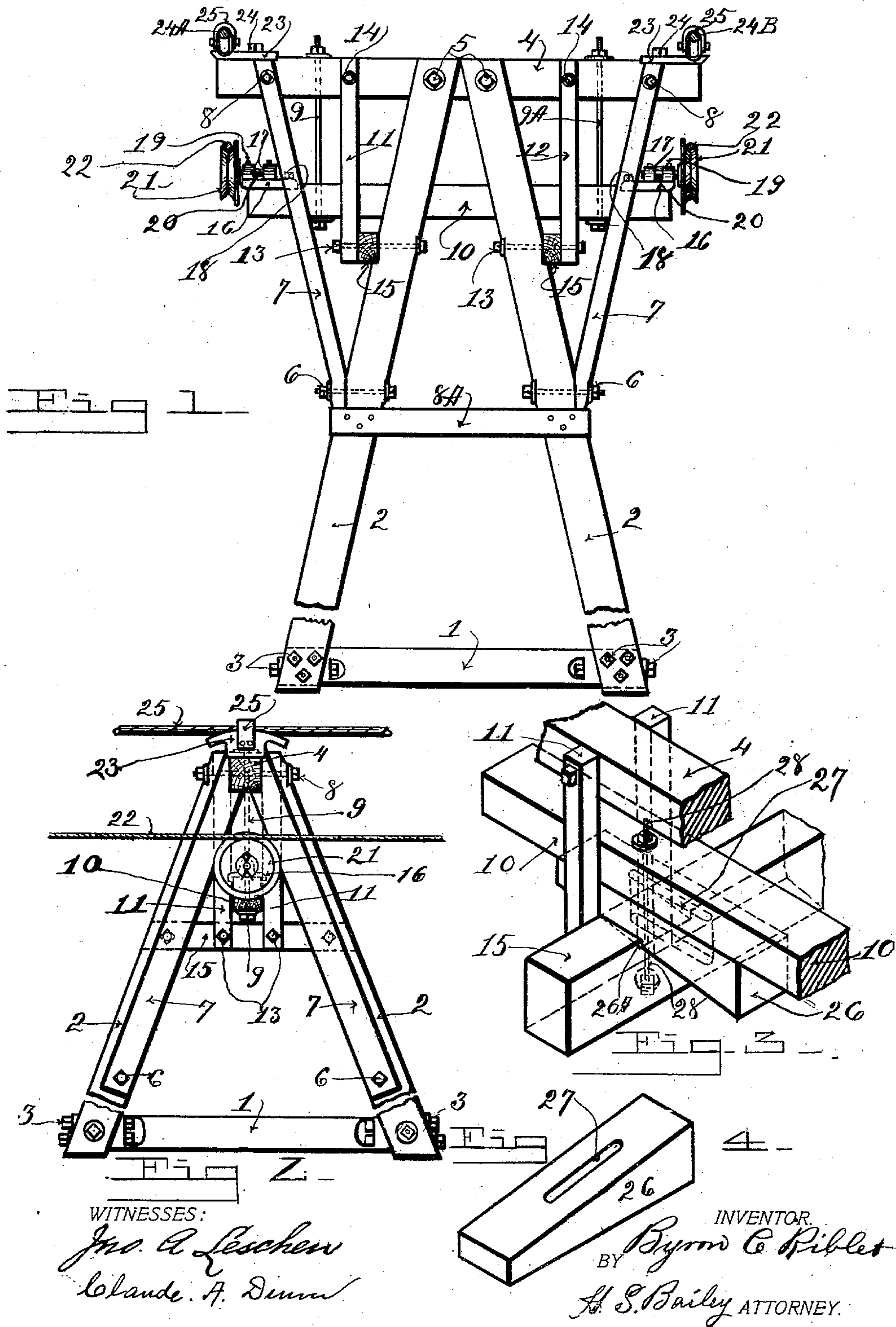
No. 685,346.

Patented Oct. 29, 1901.

B. C. RIBLET.
TRAMWAY DERRICK.

(Application filed Feb. 23, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

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TRAMWAY-DERRICK.

SPECIFICATION forming part of Letters Patent No. 685,346, dated October 29, 1901.

Application filed February 23, 1901. Serial No. 42,595. (No model.)

To all whom it may concern:

Be it known that I, BYRON C. RIBLET, a citizen of the United States of America, residing at Nelson, in the Province of British Columbia, Dominion of Canada, have invented certain new and useful Improvements in Adjustable Tramway-Derricks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in adjustable derricks for aerial wire-rope tramways; and the objects of my invention are, first, to provide a derrick for endless double-rope tramways in which the upper ropes are separate and stationary and are placed on opposite sides of the derricks, the lower rope being an endless running rope and also supported on opposite sides of derricks and below the stationary ropes, and, second, to provide means for vertically adjusting the running rope in relation to the stationary ropes. I attain these results by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a wire-rope tramway derrick embodying my invention. Fig. 2 is an end elevation of Fig. 1. Fig. 3 is a fragmentary plan view of Figs. 1 and 2, showing a modification of the vertically-adjusting device; and Fig. 4 is a perspective view of the adjusting-wedge shown in Fig. 3.

Similar figures of reference refer to similar parts throughout the several views.

Referring to the drawings, the numeral 1 designates the sill of the derrick; 2, the vertical studs, which are secured by bolts 3 to the sills.

4 is the top plate, which is bolted by bolts 5 to the studs. To the studs I bolt struts 7 by bolts 6 at one end, and at their opposite ends they are bolted to near the ends of the top plate by bolts 8. I preferably use four vertical studs, and they are preferably arranged in the form of a pyramid, with a wide base and a sill across the sides of the base, and the upper ends of the studs are converged together and are secured to the central por-

tion of the plate 4 and are bolted to its opposite sides and are further secured together by a tie-beam 8^A. Two bolts 9 and 9^A depend from near the ends of the plate and support at their lower ends a beam 10, through which they pass and which is free to be raised and lowered vertically by the bolts. Upon each side of the beam, near each end, vertically-arranged guides 11 and 12 are placed, which are bolted at their lower ends to the cross-pieces 15 by bolts 13 and at their upper ends to the plate-beam by the bolts 14. The cross-piece 15 is bolted at its ends to the vertical studs. The vertically-adjustable beam is thus confined loosely between the guides and can be raised or lowered at either one or at both ends by turning the nuts on the bolts on top of the plate. At the ends of the adjustable beam a suitable casting 16, which is provided with boxes 17, is secured by bolts 18. A shaft 20 is preferably secured to the boxes by set-screws 19, and on the end of the shaft a rope-sheave 21 is revolubly mounted. These sheaves support the running rope 22 of a wire-rope tramway, which is an endless rope. Upon the outer ends of the plate 4 I place saddle-castings 23, which are bolted by bolts 24 to the plate. These saddles support the two stationary ropes 24^A and 24^B of a double-rope tramway. The ropes are secured to the saddles by clips 25, which pass over the rope and are bolted to the saddles.

The operation of my vertical derrick is as follows: When constructing and erecting them for a tramway, it is necessary that the running and stationary ropes on both sides of the derrick and on all the derricks of the tramway be supported at an equal and definite distance apart and that they be maintained so in order that the buckets which run on the stationary ropes and are drawn along by the running rope may run easily and smoothly. Consequently after the derricks are set up and the sheaves and saddles are bolted to them and the ropes mounted on them the adjustable sheave-supporting beam is raised or lowered, as required, by means of the depending bolts until the sheaves and the running rope are at the proper distance and at equal distances from the stationary ropes in the saddles above.

In Fig. 3 I illustrate a modification of the

arrangement shown in Fig. 1. In this modification the pulley-supporting adjustable beam 10 is raised and lowered by a wedge 26, which rests in an inclined seat 26^A, cut into the top edge of the cross-piece 15, to which the guides 11 are secured. The wedge is provided with a long slot 27, which extends through it, and a bolt 28 passes through the adjustable beam and the slot in the wedge and through the cross-piece, and normally they are all bolted tight together; but when the derrick is first erected the beam and sheaves are adjusted by moving the wedge to raise or lower it until it is in the desired position to bring the running and stationary ropes at equal distances apart and level.

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

1. In a vertical, adjusting-derrick for wire-rope tramways, the combination with the vertical studs, the sills, the top plate and the struts, of a beam extending between said studs below said plate, suitable side guides of said beam, and means for vertically raising and lowering said beam between said guides, and rope-sheaves revolubly secured to the ends of said beam.

2. In a derrick for wire-rope tramways, the combination with the studs, the sills, the top plate and the struts of a bolt extending through said plate near each of its ends and depending below it, a beam supported by said bolts below said plate and extending between said studs, and vertical guides arranged on each side of said beam, and arranged to allow said beam to be raised and lowered by said bolts between them, stationary-rope-supporting saddles at the ends of said top plate,

and rope-sheaves revolubly supported at the ends of said beam, substantially as described.

3. In a derrick for wire-rope tramways, the combination with the studs, the sills, the top plate and the struts, of a bolt extending through said plate near each of its ends and depending below it, a beam supported by said bolts below said plate and extending between said studs, a cross-piece secured to each side of said studs, and vertical guide-pieces secured to said plate and to said cross-pieces on each side of said beam and adjacent to its ends, and arranged to allow said beam to be raised and lowered by said bolts between them, stationary-rope-supporting saddles at the ends of said top plate and rope-sheaves revolubly supported at the ends of said beam, substantially as described.

4. In an adjustable derrick for wire-rope tramways the combination of the sills and studs, the plate and the studs arranged to form a pyramidal-shaped derrick having the plate at its apex with the bolts depending from said plate, the beam supported by said bolts depending from said plate, the cross-pieces secured to said studs and the guide-pieces secured to said plate and to said cross-pieces, the supporting, running-rope sheaves and supporting-boxes secured to the ends of said beam, and the stationary-rope-supporting saddles secured to the ends of said plate, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

BYRON C. RIBLET.

Witnesses:

BESSIE THOMPSON,
CLAUDE A. DUNN.