

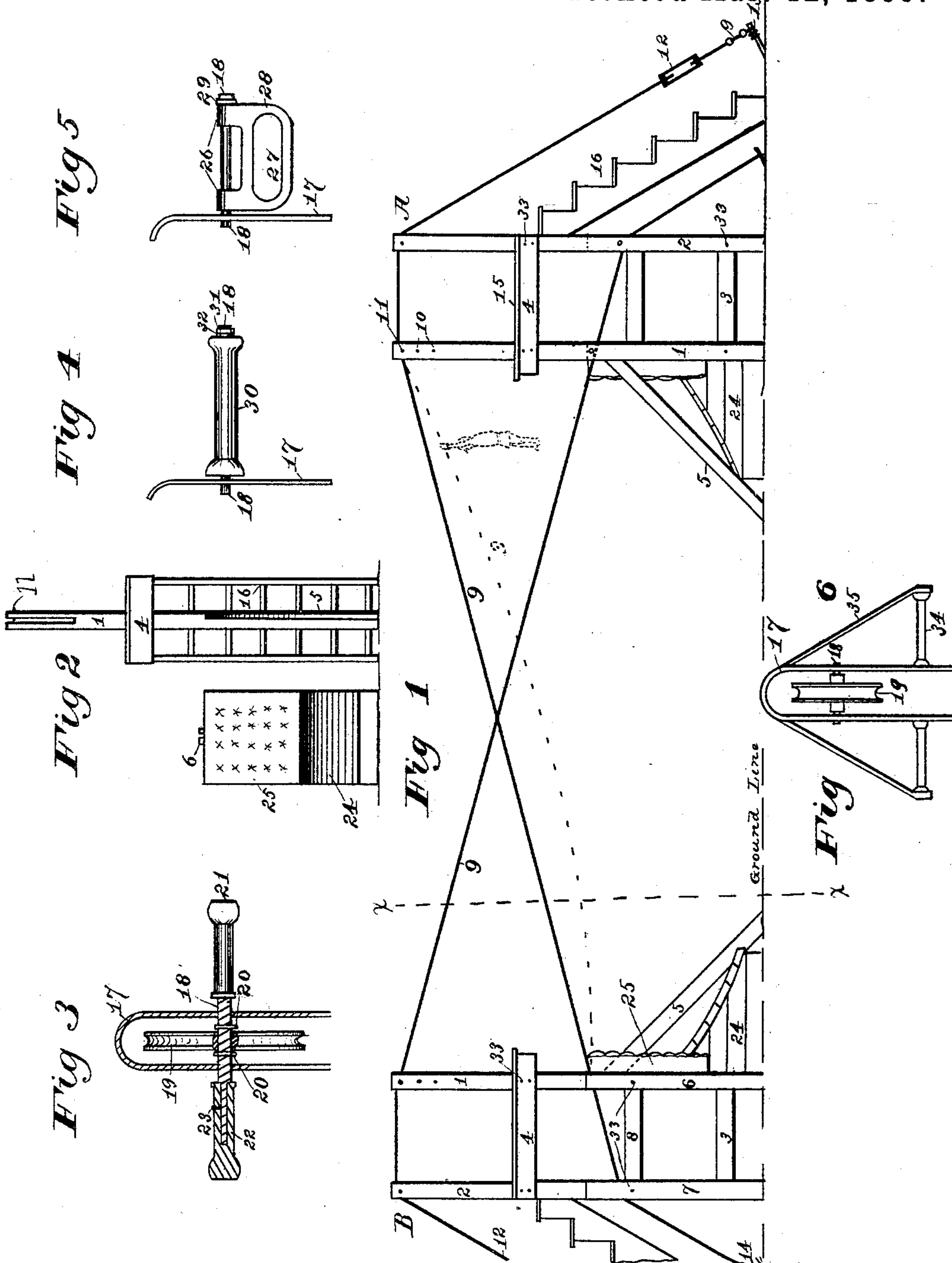
(No Model.)

J. PRITTIE.

AERIAL RAILROAD OR WIRE TRAMWAY AND APPLIANCES THEREFOR.

No. 399,283.

Patented Mar. 12, 1889.



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JAMES PRITTIE, OF DENVER, COLORADO.

AERIAL RAILROAD OR WIRE TRAMWAY AND APPLIANCES THEREFOR.

SPECIFICATION forming part of Letters Patent No. 399,283, dated March 12, 1889.

Application filed November 6, 1888. Serial No. 290,164. (No model.)

To all whom it may concern:

Be it known that I, JAMES PRITTIE, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Aerial Railroads or Wire Tramways and Appliances Therefor, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to a novel construction and arrangement of a wire tramway or aerial railroad, and of the appliances therefor; and its objects are to furnish such a tramway and appliances of so simple and economical form that they may be put up and used for exercise and pleasure, rather than for traffic; that may be easily constructed, be adapted for safe, pleasant, and health and strength profit- ing use, giving exhilarating exercise and play to many of the muscles of the body, reliable and durable, and having a frame-work composed of parts readily assembled and put into operative position and as readily taken apart and separated for ease and convenience of transportation; to which ends the invention consists in the features, constructions, and arrangements more particularly hereinafter described and claimed.

In the drawings is illustrated an embodiment of my invention, in which drawings—

Figure 1 is a side view or elevation; Fig. 2, an inner end view, looking to the left of line *x x*, Fig. 1; Fig. 3, a transverse vertical section of the carriage; and Figs. 4, 5, and 6, end views of modifications of a part of Fig. 3.

In Fig. 1 two of the wire tramways are shown—one inclining from station A at the right to station B at the left, and the other inclining in the opposite direction—the two together forming a round way from one station or end to the other and return. These “stations,” so called herein for convenience merely, are the ends or terminals of each tramway, and they may be as far apart as desired consistent with the strength of the wire or cable used. The two tramways are exactly alike, and the description now to be given will be based on the one supposed to be nearest—that is, the one inclining downwardly from right to left, or from A to B.

At the end A are two upright posts, 1 2, of suitable height and arranged to stand firmly at a little distance apart. To insure firmness they may be braced from one to the other by any number of cross-braces, 3 4, while a diagonal brace, 5, may take from the inside of the inner post, 2, to a stake in the ground or a lug upon the floor or a suitable base-piece. As these posts are to support the wire or cable 9 at its highest elevation, a groove or channel is made in the top of the posts for such wire or cable to lie in, and by which it is retained in proper position. To enable the height of the wire relatively to the other end to be adjusted and its inclination varied accordingly, the top of post 1 may be slotted to a considerable depth, apertures 10 being made through the wall of the slot and a pin, 11, provided for placement in any desired aperture, to there support the wire or cable.

At the end B two posts, 6 7, are placed, similarly disposed, and which may be braced in the same way, but of a height only as great as or comparatively slightly greater than the height from the ground to be given the lower end of the wire or cable. Such wire or cable 9 is attached at one end to a post or stake, 14, or to any other suitable securing and firm device, and is then stretched over the tops of the posts 7 6 and over the top of post 1 or over the pin 11 therein, then over the post 2, and is secured at that end to a stake, 13, or other firm device.

Interposed in the wire or cable 9 or between it and one of the stakes by which it is secured is the ordinary wire-tightening device, 12, by which any slack at any time occurring in the wire or cable may be taken up and the wire or cable kept normally taut and straight.

Upon the upper cross-braces, 4, or upon brackets or supports supported by the upright posts, is a platform, 15, by which a passenger or one desiring to use the tramway may reach the carriage adapted to travel on the cable or wire, this platform being reached by any suitably-placed flight of stairs, 16. Where two or more tramways are placed parallel to and a short distance from each other and going in the same direction, the platform 15 may be built from the posts 1 2 of one tramway to the posts 1 2 of another, or the plat-

form may be built from the posts 1 2 of one tramway to and upon the posts 6 7 of its companion or return tramway.

The frame-works (here shown as made of timber) are secured together by mortises and tenons, the parts being held in place by pins or screws 33, so that the members may be readily separated from each other and the frames "knocked down," as it is technically termed, for ease of transportation. The same end may be attained by making the frames of iron tubings, or sections thereof rather, secured together and in position by the ordinary screw-couplings or joints, both plain and elbow or T-joints.

The simplest form of carriage for use with the tramway is shown in section in Fig. 3, wherein 17 is a saddle, preferably of tenacious metal and open-ended and open-bottomed. Through its sides passes a spindle, 18, on which is rotatably seated a sheave-pulley, 19, so as to lie in the upper part of the saddle 17. Upon the exterior ends of the spindle are handles 21 22, one of which may be integral therewith, 21 being so shown, while the other herein, 22, is secured thereupon by a screw or other fastening, 23.

To use the tramway and carriage, a person mounts to the platform 15, places the carriage upon the wire or cable 9, so that such wire or cable lies in the groove of the pulley 19, grasps the handles 21 22 firmly with the hands, and steps from the platform, the entire body being suspended from the carriage-handles by the hands. The weight thus suspended from both sides and immediately below the pulley, the latter is maintained upright upon the wire, and the party goes down the tramway toward the end B with a velocity proportionate to the inclination given the wire or cable. No matter how taut the cable or wire may be normally, the effect of the weight is to curve it downwardly, giving it a curve approaching somewhat a catenary curve, as shown in dotted lines, Fig. 1, the greater impetus being given the person at the start, and the flattening of the curve at the lower end tending to reduce the impetus and stop the person. To aid or to enable the person to easily and safely stop at the lower end, (which should be brought comparatively near the ground,) a curved or inclined platform, 24, is built or placed upon the inner side of post 6, on which the person's feet may take, while above the platform a padding like a mattress, plain or spring, is secured, against which the body may safely take and stop.

Instead of the pulley being loosely seated on the spindle 18 and kept in proper position thereon by pins 20 or equivalent devices, the spindle and pulley may be arranged to rotate together, the former being journaled in hollow handles 30, secured in position by pins 31 in the end of the spindle, washers 32 being placed upon the spindle between the ends of the handles and the pins, as seen in Fig. 4;

or handles or hand-holds 28, as seen in Fig. 5, may be used. Such handle 28 has along its upper edge bearings 26 for the spindle 18, and such bearing may be in two or more sections, as seen, or in one bearing continuous for the whole extent of the handle, which may be kept in position on the spindle by a pin, 31, as in Fig. 4, or by a nut, 29, as seen in Fig. 5.

If it is deemed preferable and desirable to have the weight suspended from the carriage at a point or points below the axis of the pulley, the carriage may be arranged as shown in Fig. 6, wherein the pulley 17 is journaled by its spindle 18 in the walls of the saddle, from whose sides below the axis of the pulley project the handles 34, rigidly secured thereto, and which, for greater security and strength, may be braced by the strips 35, secured to the upper part of the saddle and to the ends of the handles. It is evident that instead of a single pulley being used in the carriage, as herein shown, a plural number thereof, to take upon the cable or wire, may be used.

It is evident that for the purposes of exercise and pleasure one tramway may be used, down which the user may drop, walking back to the starting-point for a repetition; but it is preferable to use the two inclined in opposite directions, that the user may make the round trip, starting, say, at A, and when arrived at the end thereof lifting the carriage therefrom, going up upon the platform thereat, placing the carriage on the return wire or cable, and returning to A thereby. The momentary suspension going from one station to another brings into use all the muscles of the arms, hands, and trunk, exercising and strengthening them and giving greater power of grip. Used moderately at first, the strength of arms, lungs, and chest is increased, and with such increase more and more use of the tramway may be advantageously made. At the same time the rapid flight through the air, with no sustaining devices below the person and no impelling power, gives a pleasant exhilaration and quickening of the circulation.

The span from station A to station B may be several hundred feet, so long as the tensile strength of the wire or cable will permit, if desired, or it may be made short enough to come within the compass of an ordinary or even small town lot, so affording means for home pleasure and exercise.

Having thus described my invention, what I claim is—

1. A tramway for physical exercise, consisting of higher posts at one end, a platform thereat, lower supporting-posts at the other end, an inclined wire or cable stretched over such posts and between the two sets thereof, means for securing the ends of the wire or cable, a wire-tightening device, 12, an inclined or curved stopping-platform, 24, and a padded surface, 25, substantially as set forth.

2. A tramway for physical exercise, consisting of the higher cable-supporting posts at one end, having their upper ends slotted

for varying the height of the upper end of the
cable, a platform at such end, lower cable-sup-
porting posts at the other end, an inclined
wire or cable stretched over such posts, means
5 for securing the ends of the wire or cable,
and a wire-tightening device applied to such
cable, substantially as set forth.

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

JAMES PRITTIE.

Witnesses:

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