No. 801,700. PATENTED OCT. 10, 1905.

S. L. WELP.

AERIAL TRAMWAY OR RAILROAD APPARATUS.

APPLICATION FILED APR. 22, 1905.

2 SHEETS—SHEET 1.

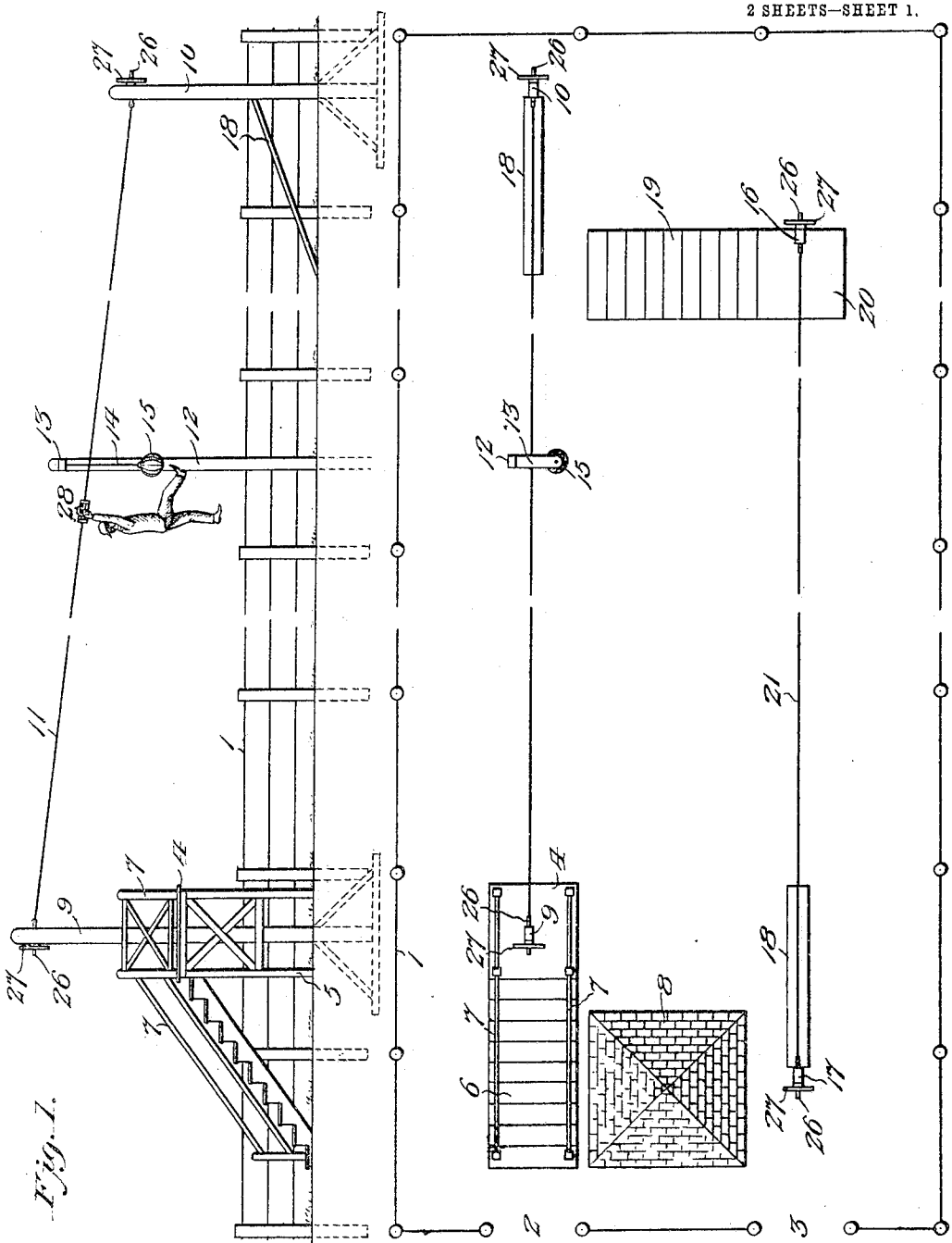

Fig. 1.

Fig. 2.

WITNESSES:

Edwin F. McKee

Chas. S. Hoyer.

INVENTOR

Samuel L. Welp

BY Victor J. Evans

Attorney

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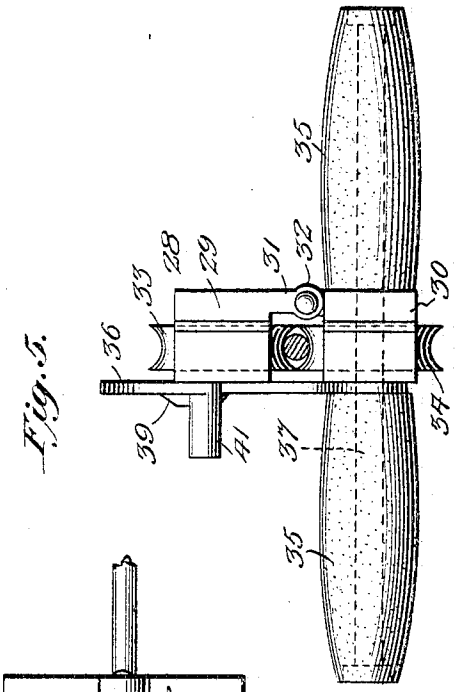

Fig. 5.

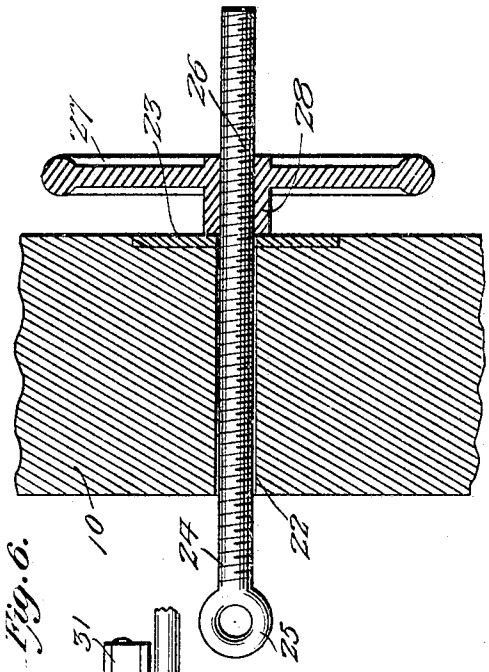

Fig. 6.

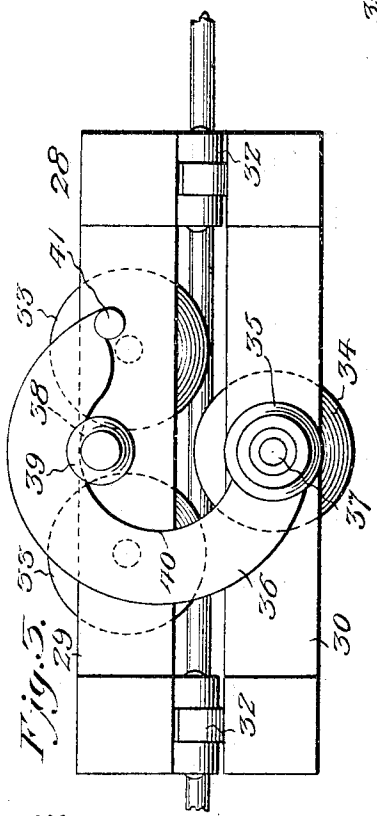

Fig. 3.

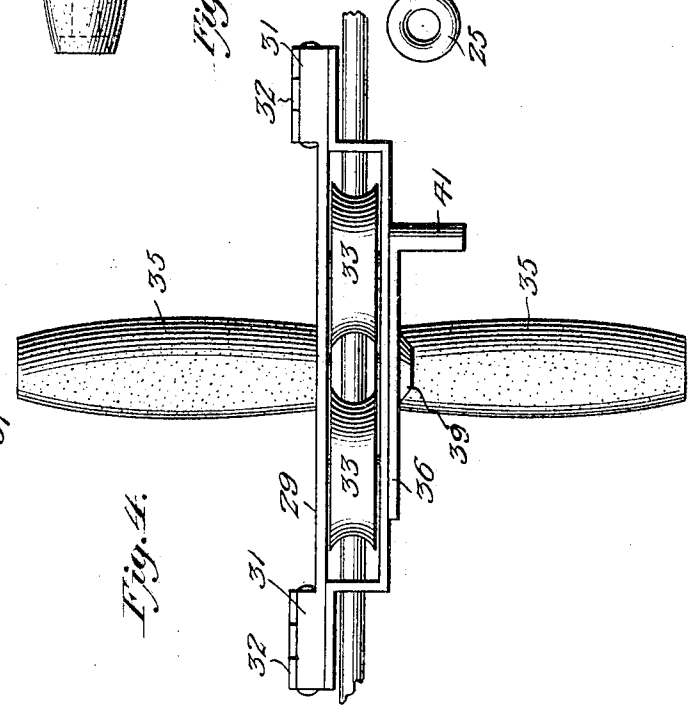

Fig. 4.

WITNESSES:

Edwin G. McKee

Chas. S. Hyer.

INVENTOR

Samuel L. Welp

BY Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

SAMUEL L. WELP, OF BROOKLYN, NEW YORK.

AERIAL TRAMWAY OR RAILROAD APPARATUS.

No. 801,700. Specification of Letters Patent. Patented Oct. 10, 1905.

Application filed April 22, 1905. Serial No. 256,955.

To all whom it may concern:

Be it known that I, SAMUEL L. WELP, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Aerial Tramway or Railroad Apparatus, of which the following is a specification.

This invention relates to an aerial tramway or railroad and the appliances therefor; and the objects are to provide a device of this class of simple and economical form capable of being readily put up and used for exercise and pleasure and including a suspended device at an intermediate point to be manipulated or operated by the user of the railroad and appliances in accordance with certain rules and regulations, to provide means for encouraging safe, pleasant, and healthful exercise by bringing into play many muscles of the body which are under the tension of the weight strain of the body of the user, and to provide a carriage which can be quickly applied to and removed from the cable or analogous device forming a track therefor.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of an apparatus embodying the features of the invention and showing the mode of using the same. Fig. 2 is a top plan view of the improved apparatus. Fig. 3 is a side elevation of a carriage forming part of the apparatus. Fig. 4 is a top plan view of the carriage. Fig. 5 is an end elevation of the carriage. Fig. 6 is a vertical section through a portion of one of the end posts or uprights for the cable, showing the means for adjusting the latter.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a surrounding fence, which is preferably made up of ribbon-strands secured to posts in the ordinary manner, which may also be of ornamental form to render the apparatus attractive in appearance. The fence at one end of the inclosure defined thereby has an entrance-opening 2 and an exit-opening 3, which may be controlled by suitable gates or turnstiles. Erected near the entrance-opening 2 is an elevated platform 4, held by a supporting-frame 5 and having steps 6 leading thereto, the steps and platform being provided with side guard-rails 7. Adjacent to the entrance 2 and step 6 a small building or inclosure 8 is adapted to be erected and serve as a ticket-office and waiting-room or other purposes. Rising centrally through the platform 4 is an upright or post 9, having its lower end suitably anchored in the ground, as shown by dotted lines in Fig. 1, and in alinement with this upright or post 9 and at a distance suitable therefrom is a similar post or upright 10, which is considerably shorter than the post 9. Extending from the upper end of the post 9 to the similar end of the post 10 is a wire cable 11 or the like, and owing to the difference in length of the two posts or uprights the said cable has a downward inclination toward the post 10. This cable 11 forms an aerial track or tramway, and to one side thereof at an intermediate point an upright 12 is erected and has an arm 13 secured to the upper end thereof and projected over the cable. A suspending cord, wire, or analogous device 14 is secured at its upper end to the inner end of the arm 13 and has a football or other similar device 15 attached to the lower end. The ball or analogous device 15 depends below the cable 11, but will be at such elevation in relation to the user of the apparatus that it will be necessary to throw the foot upwardly in order to engage said ball.

The apparatus will also include posts or uprights 16 and 17, similar to those heretofore described and in reverse position—that is, the post 16, which is nearest the post 10, extends upwardly a greater distance than the post 17, and the latter is reinforced against movement, as well as the post 10, by a brace 18. Transversely-extending steps 19 lead upwardly to a platform 20, through which the post 16 extends, and connecting the two posts 16 and 17 is a cable 21. The purpose of this additional aerial track is to permit the user of the first-mentioned track to return toward the inlet or entrance end of the inclosure over the cable 21 after using the cable 11 and pass out through the exit-opening 3. The lower terminals of the cables 11 and 21 will be at such distances above the ground-surface that the user may readily disengage himself therefrom and also check his movement, as he will be able to contact with the ground and by performing a few short steps on the ground-surface will be enabled to stop without liability of injury.

It is obvious that the cables 11 and 21 must

be held taut, and to accommodate taking up slack at any time therein adjusting devices of a similar nature are employed in connection with each cable. These adjusting devices are clearly shown by Fig. 6, and each of the posts or uprights near its upper end has an opening 22 extending transversely therethrough and through a wear-plate 23 on the side of the post opposite that to which the cable runs. In the opening 22 an elongated eyebolt 24 is loosely fitted and has an eye 25 at one end and screw-threads 26 extending over the entire length thereof. This eyebolt is engaged by an adjusting-wheel or turn-head 27, having a central hub or sleeve 28, with a screw-threaded bore therethrough to engage the threads 26 of the bolt, the one end of the hub or sleeve 28 contacting with the wear-plate 23. By turning the hand-wheel or turn-head 27 in the proper direction the eyebolt 24 will be drawn through the post in which it is mounted and take up the slack of the cable attached to the eye 25.

Included in the apparatus is a novel form of carriage 28, which comprises an upper member 29 and a lower member 30, both members having vertical slots therethrough and constructed of light framework, as clearly shown by Fig. 4. The upper member 29 has depending projections 31 at opposite ends, terminating in knuckles which receive upwardly-projecting knuckles 32, forming a part of the lower member 30, the projections 31 and knuckles 32 being located at one side of the center of the carriage, so that the lower member may be opened and swung to one side. In the upper member a pair of grooved wheels or sheaves 33 are pivotally mounted and held for free rotation, and in the lower member, at a point opposite the space between the upper wheels or sheaves 33, is a single grooved wheel or sheave 34, having its axle, on which it loosely rotates, projected outwardly a considerable distance beyond the opposite sides of the lower member to receive grips 35, which are grasped by the user of the apparatus, as will be more fully hereinafter explained. By hinging the lower member 30 to the upper member 29 the carriage can be readily applied to or disengaged from either of the cables 11 and 21; but it is obvious that some means must be provided for holding the member 30 reliably closed against the member 29 to prevent accident or injury to the user while the carriage is moving over either of the cables. To accomplish this end, a segmental latch-bar 36 is pivotally connected at its lower end to the axle 37 of the wheel or sheave 34 and held between the inner end of the adjacent grip 35 and the side of the lower member 30. In the center of the same side of the upper member 29 a catch-pin 38 is secured and has a flanged head 39, between which and the side of the said upper member the latch is adapted to move and be locked. The inner edge 40 of the latch is regularly curved, and the terminal of the latch, being below the plane of the upper portion of the pin 38 when said latch is in engagement with the pin, obstructs any tendency to accidental disengagement of the latch. In other words, the portion of the curved edge 40 of the latch which engages the pin 38 bears snugly on the pin, and to facilitate the operation of the latch the terminal thereof is provided with an outwardly-projecting pin 41.

The user of the apparatus ascends to the platform 4 with his carriage and applies it to the cable 11, and then locks the lower member 30, through the medium of the latch 36, to the upper member 29. He then takes firm hold of the grips 35 and steps off the platform. Owing to the inclination of the cable, the user rapidly gravitates toward the post or upright 10, and as he approaches the ball or analogous device 15 he kicks the same, and proficiency in this operation may be rewarded under certain rules or regulations, and, if not, the exercise which results from the bodily action while the muscles are under tension of the weight strain of the body held suspended from the cable will be highly beneficial. After the user arrives at a point adjacent to but in advance of the post or upright 10 he checks his speed by a series of short steps, as he will then be in reaching distance of the ground-surface. The carriage is then detached from the cable 11, and the user or operator then ascends the steps 19 and applies the carriage to the cable 21 and returns by a like operation to the front end of the inclosure defined by the fence 2.

It will be understood that the posts 9 and 10 and 16 and 17 may be arranged at any distance apart, and, furthermore, the carriage set forth might be at times employed as a means for conveying persons over streams, ravines, or other places over which a cable similar to the cables 11 and 21 may be stretched to form an aerial railroad or tramway.

Changes in the proportions, dimensions, and minor details of the several parts may be resorted to without departing from the spirit of the invention.

Having thus fully described the invention, what is claimed as new is—

1. An apparatus of the class set forth, consisting of an inclined cable, an object suspended adjacent to the cable, and a carriage for removable application to the cable, said carriage being adapted to be grasped by the user who endeavors to strike the device suspended near the cable.

2. In an apparatus of the class set forth, the combination of an inclined aerial railroad, a carriage movable over the said railroad, and a device movably suspended at an intermediate point in relation to said railroad and depending below the latter.

3. The combination with a cable, of a car-

riage movable thereover and comprising an upper member having a pair of sheaves therein, a lower member hinged to the upper member and carrying a sheave, grips projecting outwardly from opposite sides of the lower member, and means for locking the lower member closed against the upper member.

4. The combination with a cable, of a carriage movable thereover and having an upper member carrying sheaves, a lower member hinged to the upper member and also carrying sheaves, and means for locking the lower member closed in relation to the upper member.

5. The combination with a cable, of a carriage movable thereover and having a lower hinged member, grips projecting outwardly from opposite sides of the carriage, sheaves mounted in the upper and lower portions of the carriage, and means for locking the lower member closed.

6. The combination with uprights of a cable terminally attached thereto, eyebolts projecting through the uprights and having the terminals of the cable attached thereto, said eyebolts being screw-threaded, and turn-heads engaging the said bolts and operative to take up the slack of the cable.

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

SAMUEL L. WELP.

Witnesses:
J. J. WHALEN,
JAMES B. DRISCOLL.