

J. H. DICKINSON.
 PORTABLE CABLEWAY.
 APPLICATION FILED APR. 7, 1908.

984,514.

Patented Feb. 14, 1911.

6 SHEETS—SHEET 2.

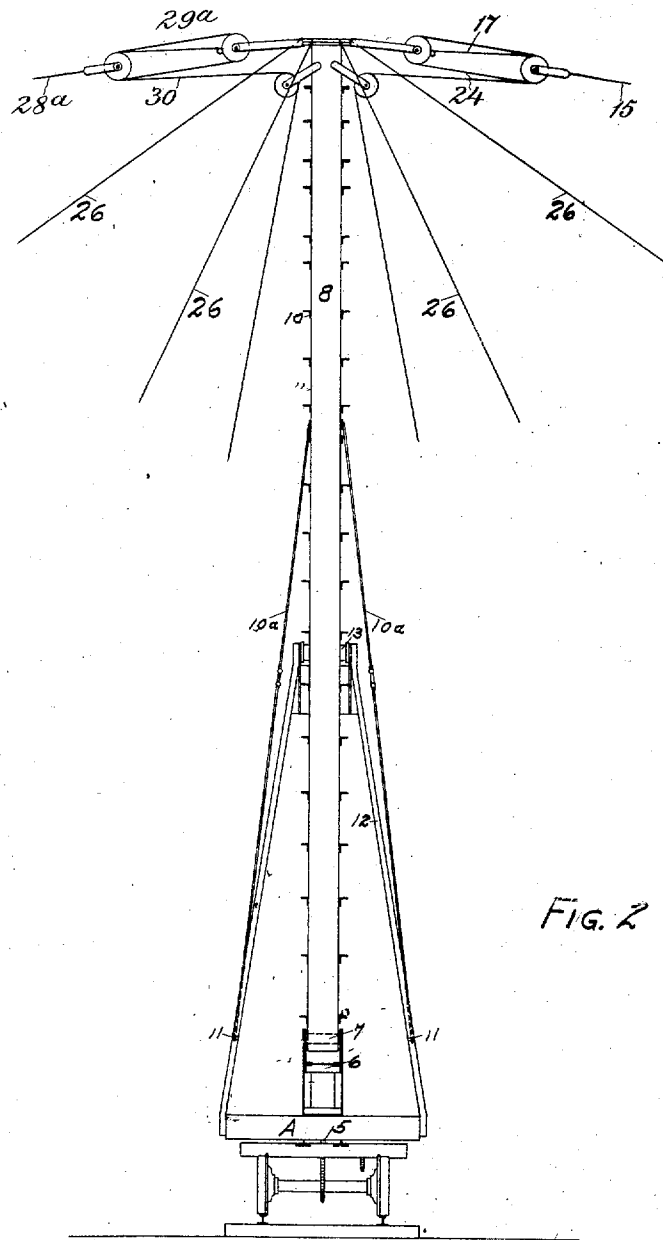


FIG. 2

WITNESSES:
E. B. Cavanaugh
J. C. Hardenburgh, Jr.

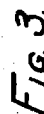
INVENTOR
Joseph H. Dickinson
 BY *Lyford & Bell*
 ATTORNEYS

APPLICATION FILED APR. 7, 1908.

984,514.

Patented Feb. 14, 1911

6 SHEETS—SHEET 3.



Witnesses
J. B. Carnahan.
J. C. Hardenbergh, Jr.

By *Joseph W. Dickinson* Inventor
By *Attorneys* *Esmond & Bull*

J. H. DICKINSON.
 PORTABLE CABLEWAY.
 APPLICATION FILED APR. 7, 1908.

984,514.

Patented Feb. 14, 1911.

6 SHEETS—SHEET 4.

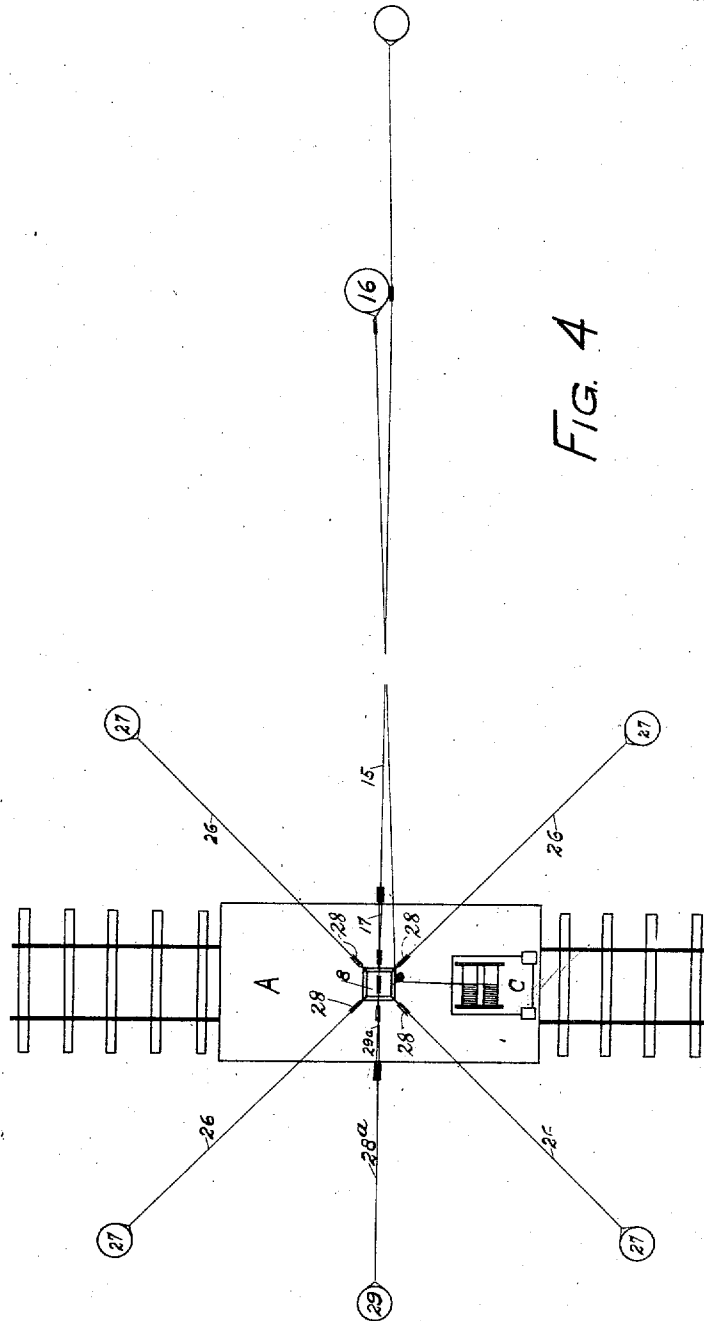


FIG. 4

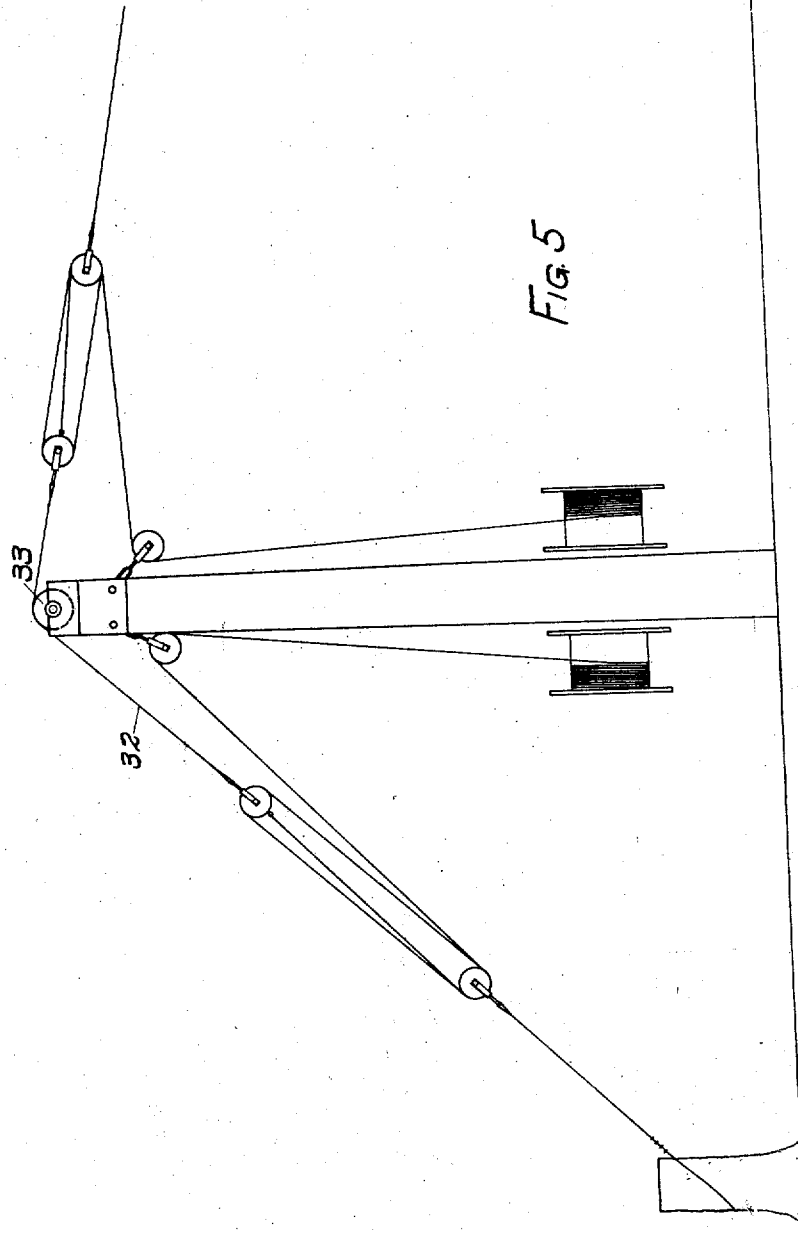
Witnesses
R. B. Carrington
J. E. Hurlenburgh, Jr.

Inventor
Joseph H. Dickinson
 By *his* Attorneys *Wifford & Bull*

Patented Feb. 14, 1911.

6 SHEETS—SHEET 5.

984,514.



WITNESSES:

R. B. Larned
J. E. Hardenbergh, Jr.

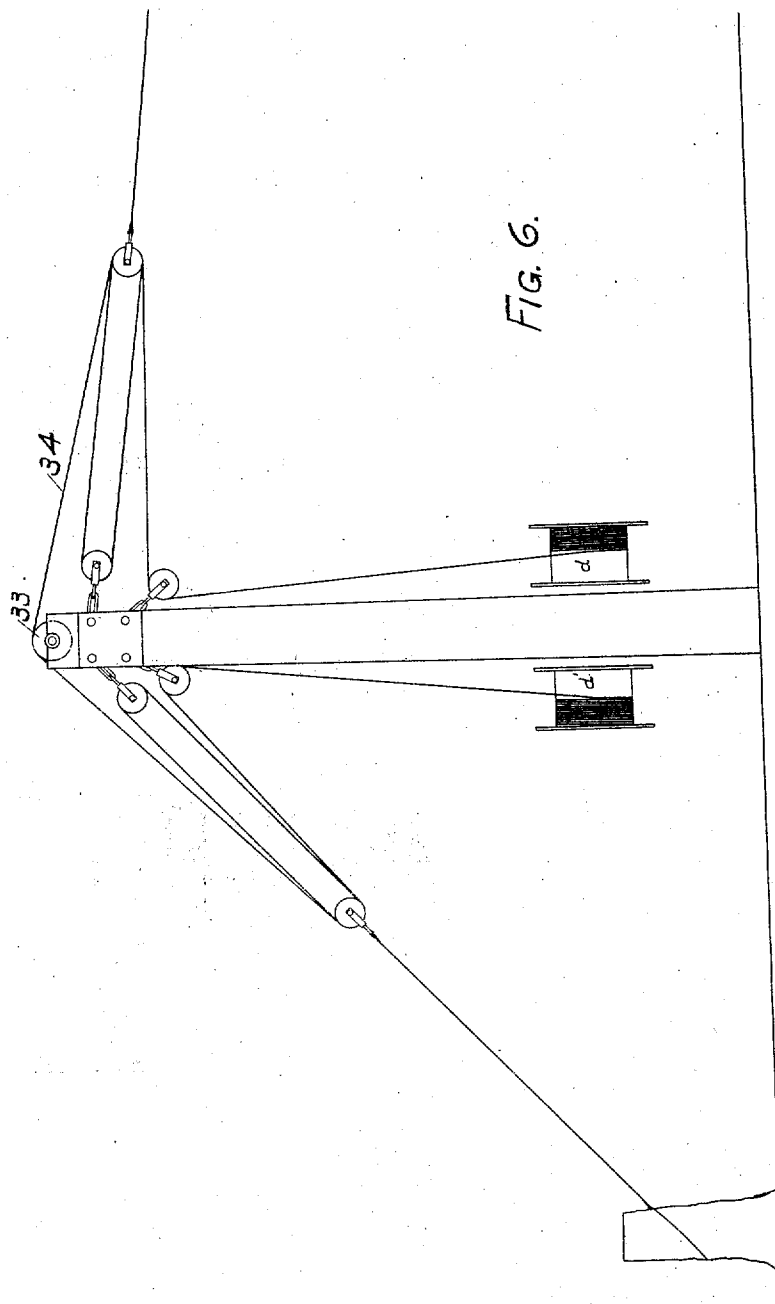
INVENTOR

J. H. Dickinson
BY *Wm. A. Bull*
ATTORNEYS

J. H. DICKINSON.
PORTABLE CABLEWAY.
APPLICATION FILED APR. 7, 1908.

Patented Feb. 14, 1911.
6 SHEETS—SHEET 6.

984,514.



Witnesses
R. B. Cassin
J. E. Hardinburg Jr

Inventor
Joseph H. Dickinson
By his Attorneys
Gifford & Bull

UNITED STATES PATENT OFFICE.

JOSEPH H. DICKINSON, OF MONTCLAIR, NEW JERSEY.

PORTABLE CABLEWAY.

984,514.

Specification of Letters Patent.

Patented Feb. 14, 1911.

Application filed April 7, 1908. Serial No. 425,649.

To all whom it may concern:

Be it known that I, JOSEPH H. DICKINSON, a citizen of the United States, and a resident of Montclair, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Portable Cableways, of which the following is a specification.

My invention relates to new and useful improvements in portable cableways particularly designed for logging, and the primary object of the invention is to provide an improved and efficient apparatus adapted to be transported along a track from place to place, and which will include an improved form of head spar, so arranged and constructed that it may be depressed or folded for transportation, and conveniently erected for use where the logging operations are to take place.

A further object is to provide an improved system of cableway to be used in connection with the spar which will be especially adapted to transportation, and which will include simple and efficient means for maintaining the main cableway under proper tension.

Another object is to provide a guy or support for the tower, and a means for securing the main cable which will be interchangeable in use and function so as to permit the cable being used in a number of directions without changing the same general arrangement of the guy and securing means.

The invention consists in the construction, combination and arrangement of parts set forth in and falling within the scope of the appended claims.

In the accompanying drawings, Figure 1 is a view in side elevation of a portable cableway apparatus embodying my invention, and showing a folding head spar raised for use in the logging operation. Fig. 2 is an end view of the same; Fig. 3 is a view in end elevation of the improved portable head spar or tower, and the improved cableway associated therewith. Fig. 4 is a top plan view showing the layout of my improved portable cableway when it is at a setting, or in position for the logging operation, such view showing approximately the directions assumed by the guys and the main cable. Fig. 5 is a conventional view of the spar or

tower showing a modified form of the interchangeable guy and main cable connection, other parts of the cableway being omitted for the sake of clearness. Fig. 6 is a view showing another embodiment of the interchangeable guy and main cable connection.

Referring now to the accompanying drawings in detail, A indicates the frame, which may be in the nature of a platform or base, and which is in the present instance provided with its own propelling mechanism. The platform of the car is provided with king-pins 5, 5, in the ordinary manner, so that the platform has a slight tilting or rocking movement relative to the trucks of the vehicle. Upon the platform or base is mounted a relatively low support 6 having fulcrumed thereto, as at 7, the spar or tower 8, which tower may be of any suitable construction, but is preferably in the nature of a skeleton tower; that is to say, one constructed of longitudinal members 9 with suitable reinforcing braces 10. This spar or tower is adapted to be raised and lowered on the vehicle as the occasion may demand and is further provided with side struts or braces 10^a pivoted as at 11, so that such braces may be raised and lowered with the spar. Arranged adjacent to the spar is a support of any suitable character such as an A-frame, indicated by the numeral 12, said frame at its upper portion carrying the roller bearing 13, which acts as a support or saddle for the various ropes of the cableway operating apparatus when the spar or tower is lowered for transportation. This supporting frame is also provided with suitable truss rods or guys 14 to impart rigidity and strength thereto. Mounted upon the platform is an engine C of any well known and suitable type, such as the Lidgerwood engine, which engine is adapted to operate the cableway apparatus. This cableway is in the main also of a well known form, comprising the main cable 15 secured at one end to a tail-tree 16 and at the opposite end to the spar or tower 8, through the medium of the running connection 17. A carriage 18 is adapted to travel along the main cable and is provided with an outhaul rope 19 actuated from the drum *a* of the engine C, while the skidding rope 20, which also acts as an inhaul, is connected to the drum *b* of

the engine and actuated thereby, and the slack-pulling rope 21 is actuated by the drum *c*.

As above stated, the connection of the main cable to the tower is in the nature of a running block and fall of substantially the type shown in the Miller and Dickinson Patent No. 808,246, the rope 24 connecting the two blocks passing down to the drum *d* of the engine D, and whereby the main cable is tensioned by tightening or loosening this rope as desired. The drum *e* of the engine D actuates the changing line 25. When the tower is in its elevated position and for the logging operation, it is of course desirable to suitably guy or support the tower and, as above stated in the present apparatus, it is my purpose to log on either side of the track at an angle thereto and not around the entire head-tree. Therefore, I provide a suitable number of guys, preferably four, these guys being indicated by the numeral 26, which are secured at one end to suitable anchorages, such as stumps 27, said guys then passing upward and around sheaves 28 adjacent to the top of the spar and thence downward to any suitable tension devices, such as the tightening drums *f* actuated from the engine D. In this instance I tension the guys by means of the drums mounted upon the platform of the car and actuated by power from the engine D, but it will of course be understood that if desirable I may employ a separate engine or I may provide a suitable hand-operated tension device. I also provide an additional guy which is arranged approximately opposite to the main cable, said guy being shown at 28^a and is secured at one end to an anchorage such as the stump 29, while at its opposite end said guy is provided with a tension device or running connection 29^a similar to the connection 17 of the main cable, that is to say, this connection comprises the two blocks with the rope 30 reeved therethrough, and connected to the tension drum *d'*, which is similar to the drum *d*. It is my purpose to have the main cable interchangeable with the tensioning guy 28. That is to say, presuming the device to be in the position shown in Fig. 2, if it be desired to log upon the opposite side of the track, the block and fall 17 is lowered and the main cable disconnected therefrom. Similarly the tensioning guy 28 is disconnected from its running connection or block and fall 29^a and one end of the main cable is then connected to the block and fall 29^a, and the main portion of the cable is then carried out and connected to a tail-tree, so that the main cable now extends in the same direction as the guy did formerly, while such guy is then transferred to the side of the tower previously occupied by the main cable and is

connected to the block and fall 17. The main cable and the guy may then be tightened so that the logging operation may be continued. It will thus be noted that logging will take place on either side of the track by merely interchanging the main cable and the tension guy. Furthermore, by the construction shown and as will be seen by referring to Fig. 4, it will be apparent that all this may take place without the logging operation interfering with the guys 26, as the logs may be brought into the space lying between two of the guys 26 on the same side of the track. In Figs. 3 and 5, it will be seen, the blocks of the running connection or block and fall which are nearest to the spar, are connected thereto through the medium of a cable or rope 32, said rope passing over a sheave 33 on the spar. By this arrangement the block and fall of the main cable and that of the guy are, under certain conditions, free to move bodily relative to the spar. For instance, in case the guy should break while a heavy load is on the main cable, the block and fall of the guy would be pulled toward the top of the support sufficiently to secure enough deflection of the main cable to permit the load to settle to the ground, thereby preventing undue tension being brought upon the remaining guys with the result and possibility of snapping the same and wrecking the apparatus.

In Fig. 6 I have shown a modified form of tension arrangement for the guy and the main cable, in this instance, one of the blocks of each block and fall is connected to the spar near the top thereof as in Fig. 2, but instead of employing two tension ropes, one for each block and fall, I provide a single rope 34 passing from one tension drum *d* through one of the blocks and falls, for instance, that of the main cable, then over and across a sheave 33, thence reeving through the other block and fall, and thence down to the second drum *d'*. By this the same advantageous arrangement as accomplished by the construction in Figs. 3 and 5 is attained, that is to say, securing the apparatus against great damage in case of breaking of the tension guy.

As is stated above, the connection of the platform to the trucks of the car by the king-pin arrangement permits a certain yielding or movement of the platform relative to the trucks, so that the spar mounted upon the platform may yield with the latter and therefore permit the guys to be tightened and to compensate for any undue strain upon certain of the guys. Furthermore, instead of mounting the spar upon a support 6 on the platform, I may pivot or hinge said spar directly to the platform and may arrange the drums of the engine D with

a space or passageway between, so that the spar may be lowered or dropped without striking said drums. In the construction shown in Fig. 1 the spar is mounted, as stated, upon an elevated support 6, and by this construction the drums of the engine D may be placed close together without the spar interfering with the same as such spar in such lowered position will extend over and above the drums. If desired, I may provide a suitable support 37 for assisting in supporting the spar when the latter is in its lowered position.

While I have herein shown and described one embodiment of my invention, I wish it to be understood that I do not limit myself to the precise form of construction herein delineated, but that modification and variation may be made without departing from the spirit of my invention and without exceeding the scope of the claims.

Having thus described my invention, what I claim is:

1. In a cableway the combination with a support, a rope connection for the support, a main cable, and a tension guy adapted to be interchangeably connected to the rope connection.

2. The combination with a support, a main cable, a guy, and a connection for interchangeably connecting the main cable and the guy to the support.

3. The combination of a support, a main cable, a tension guy, and a plurality of tension devices connected to the support and adapted to tension the main cable and the guy.

4. The combination with a support, a cableway connected to said support, a running connection between the cableway and the support, a rope drum for actuating the running connection, a guy, a running connection between the guy and support, and a second drum for actuating said running connection between the guy and support.

5. The combination with a support, a cable, a guy, tension means connecting the main cable and the guy, and a plurality of drums for actuating said tension means.

6. The combination with a support, a cableway, a guy, a plurality of tension drums, and a rope having one end at one of said drums and extending from the cable to the guy and back to the opposite drum, whereby the cable and the guy may be tensioned.

7. The combination with a support, a cable, and a guy, a plurality of drum members, and a tension rope passing from one of said drum members to the main cable, thence over the support to the guy, and thence back to another of said drums.

8. The combination with a support, a main cable, and a guy, two tension drums, a sheave

carried by said support, and a tension rope extending from one of said drums to the main cable, thence over the sheave on the support to the guy and thence back to the second of said drums.

9. The combination with a support, a main cable, a running connection including a tension rope for the main cable, a drum for said tension rope, a guy, a running connection for said guy including the tension rope, a drum for the running connection of the guy, and means connecting the running connection of the main cable and the running connection of the guy.

10. The combination of a support, a main cable and a guy, a tension device for the main cable, a tension device for the guy, a flexible connection between the two tension devices, said connection passing over a sheave carried by the support.

11. The combination with a portable frame, of a supporting spar carried thereby, a main cable, and a guy, a tension device connected to the spar and adapted to interchangeably receive the main cable and the guy.

12. The combination of a portable platform, a spar carried thereby and adapted to be raised and lowered, a cableway adapted to be secured in supporting engagement with said spar, and a support for the operating ropes of the cableway when the spar is in its lowered position.

13. The combination of a platform, a spar carried thereby, a cableway adapted to be supported by said spar, a support arranged adjacent to the spar and a bearing member carried by said support.

14. The combination of a portable platform, a spar carried thereby and adapted to be raised and lowered, a cableway adapted to be arranged in supported engagement with the spar, and a support arranged adjacent to the spar.

15. The combination of a platform, a spar carried by said platform and adapted to be raised and lowered, pivoted stay members for said spar, and a cableway adapted to be mounted in supported engagement with said spar.

16. The combination of a portable platform, a pivoted spar carried thereby, pivoted stays for said spar, a support on the platform adjacent to said spar, and a cableway adapted to be arranged in supported engagement with the spar.

17. The combination of a platform, a spar carried thereby, guys for supporting said spar and power tension mechanism mounted upon the platform and adapted to tension the guys.

18. In a cableway, the combination of a support, a main cable, a running connection secured to the cableway, a guy for the support, a running connection for the guy, and

independent means for operating each of said running connections.

19. In a cableway, the combination of a support, a main cable, a guy, a tension device for the main cable, a tension device for the guy, and means connecting the tension devices to each other.

20. In a cableway, the combination of a support, a main cable, a guy, a tension device for the main cable, a tension device for

the guy, and means connecting the tension devices to each other, said connecting means being mounted on the support.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH H. DICKINSON.

Witnesses:

R. B. CAVANAGH,

T. E. HARDENBERGH, Jr.

Correction in Letters Patent No. 984,514

It is hereby certified that in Letters Patent No. 984,514, granted February 14, 1911, upon the application of Joseph H. Dickinson, of Montclair, New Jersey, for an improvement in "Portable Cableways," an error appears in the printed specification requiring correction as follows: Page 2, lines 49 and 55, the reference-numeral "28" should read 28^a; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 14th day of March, A. D., 1911.

[SEAL.]

E. B. MOORE,
Commissioner of Patents.

independent means for operating each of said running connections.

19. In a cableway, the combination of a support, a main cable, a guy, a tension device for the main cable, a tension device for the guy, and means connecting the tension devices to each other.

20. In a cableway, the combination of a support, a main cable, a guy, a tension device for the main cable, a tension device for

the guy, and means connecting the tension devices to each other, said connecting means being mounted on the support.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH H. DICKINSON.

Witnesses:

R. B. CAVANAGH,

T. E. HARDENBERGH, Jr.

Correction in Letters Patent No. 984,514

It is hereby certified that in Letters Patent No. 984,514, granted February 14, 1911, upon the application of Joseph H. Dickinson, of Montclair, New Jersey, for an improvement in "Portable Cableways," an error appears in the printed specification requiring correction as follows: Page 2, lines 49 and 55, the reference-numeral "28" should read 28^a; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 14th day of March, A. D., 1911.

[SEAL.]

E. B. MOORE,
Commissioner of Patents.

It is hereby certified that in Letters Patent No. 984,514, granted February 14, 1911, upon the application of Joseph H. Dickinson, of Montclair, New Jersey, for an improvement in "Portable Cableways," an error appears in the printed specification requiring correction as follows: Page 2, lines 49 and 55, the reference-numeral "28" should read 28^a; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 14th day of March, A. D., 1911.

[SEAL.]

E. B. MOORE,
Commissioner of Patents.