

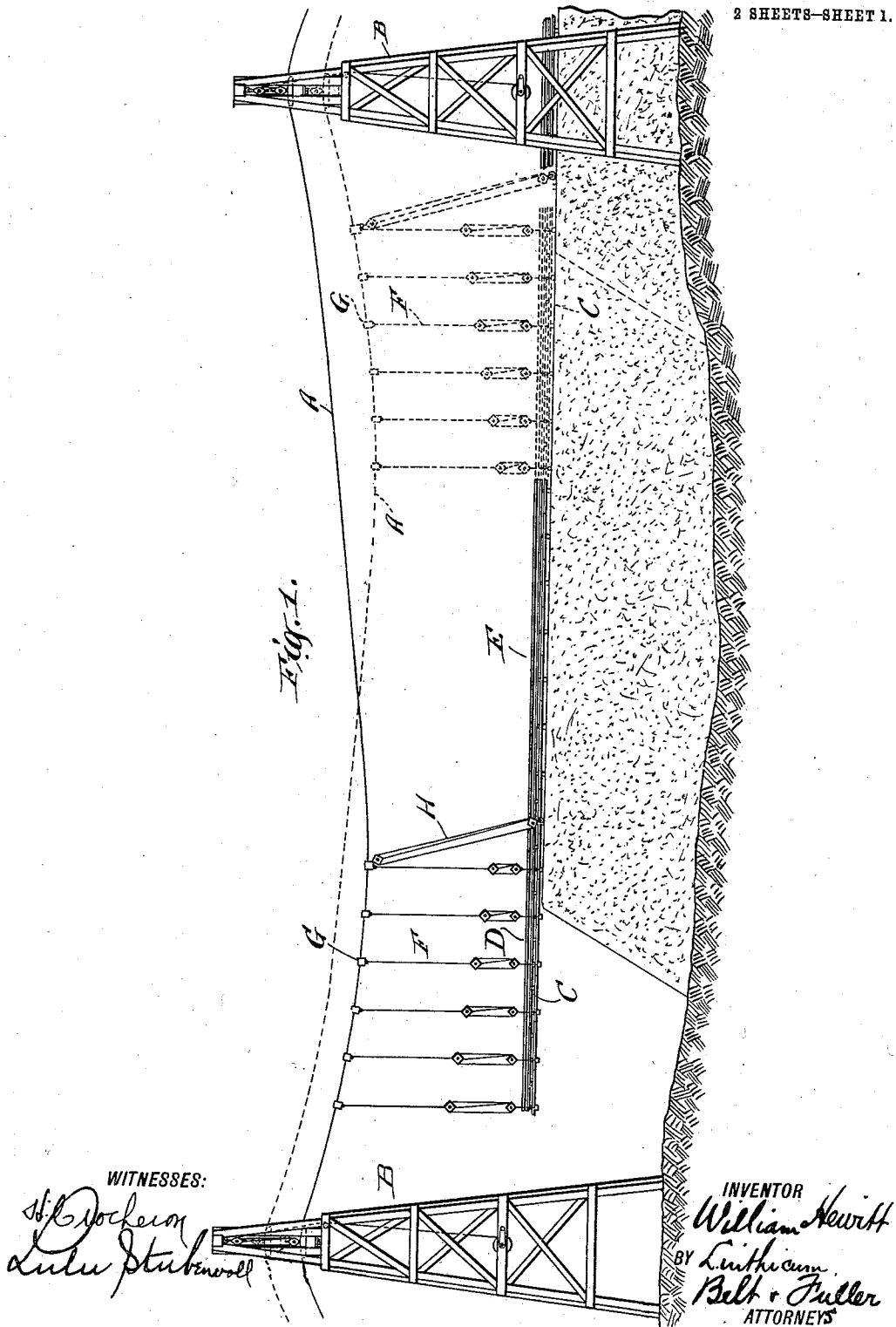
W. HEWITT.
CABLEWAY.

APPLICATION FILED MAY 11, 1910.

981,649.

Patented Jan. 17, 1911.

2 SHEETS—SHEET 1.



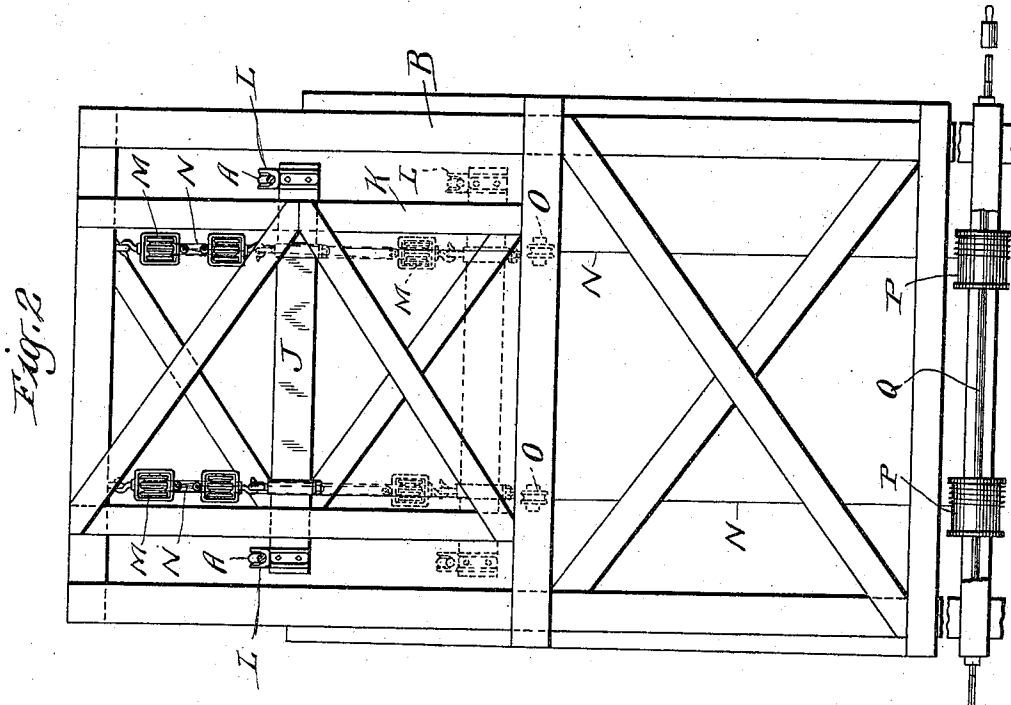
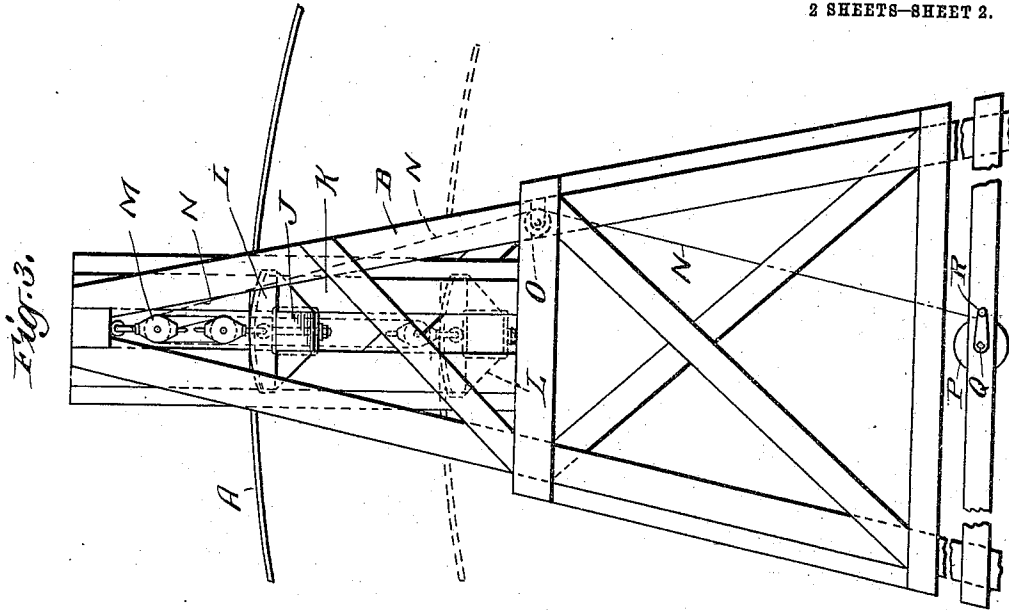
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WITNESSES:

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INVENTOR

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UNITED STATES PATENT OFFICE.

WILLIAM HEWITT, OF TRENTON, NEW JERSEY, ASSIGNOR TO THE TRENTON IRON COMPANY, OF TRENTON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

CABLEWAY.

981,649.

Specification of Letters Patent. Patented Jan. 17, 1911.

Application filed May 11, 1910. Serial No. 560,579.

To all whom it may concern:

Be it known that I, WILLIAM HEWITT, a citizen of the United States, residing at Trenton, New Jersey, have invented new and useful Improvements in Cableways, of which the following is a description.

This invention relates to cableways especially useful in making deep fills with earth, rock or the like as, for example, in building high embankments for railways. The fill is made by dumping the earth or rock from loaded cars which are run out beyond the completed portion of the fill upon a cradle or section of track which rests at its rear end upon the completed portion of the fill and is suspended from cables overhead. The cables are hung between towers or other high points of support at opposite sides of the location of the fill, the cables being suspended in such a way that the points of suspension can be lowered or raised by blocks or other means in accordance with the successive positions assumed by the cradle. This construction permits of the shifting of the main cables in such a way that the cradle in its different positions will always be at approximately or substantially the lowest points of the cables between the towers. Thus an approximately or substantially uniform vertical distance will be maintained between the cables and the cradle.

The accompanying drawings illustrate an embodiment of the invention.

Figure 1 is a side elevation of the apparatus in operation. Figs. 2 and 3 are respectively end and side elevations of one of the towers.

Referring to the embodiment of the invention illustrated, a pair of cables A are supported between towers B. In the case illustrated these are supposed to be two intermediate towers of a series. There may be any desired number of these towers depending upon the length of the fill and the desired span of the cables. From these cables is supported a cradle C carrying a track D which forms a continuation of the track E on the completed portion of the fill. The cradle is supported by means of adjustable suspenders F attached by clamps G to the cables. Cars carrying earth or rock are run out from the track E on the track D

where they are dumped. They are then withdrawn and new loaded cars substituted and dumped so as to bring the fill up to the desired grade, the cradle being advanced from time to time as the fill is completed under it and the track E being extended to connect with the track D on the cradle. A tackle H preferably follows up the rear end of the cradle to steady the cable. This system is described in detail in an application for patent of Samuel S. Webber pending concurrently herewith (No. 564,841, filed June 3, 1910).

When the cradle is near one of the towers the angle of the cable is so steep that there is required a very considerable adjustment of the lengths of the suspenders F; and furthermore the angle is so steep that clamps G are with difficulty held in place upon the cables under the downward strain of the load. In order to minimize this difficulty there are provided supporting means for the cables by which the point of suspension can be raised or lowered. In the drawing the dotted line A shows the position assumed by the cables when their right hand ends are lowered relatively to their left hand ends. This is the position given to the cables when the cradle is to be supported from the right hand portions of the cables as shown also in the dotted lines. This end of the cable assumes an approximately horizontal line which avoids or minimizes the tendency of the clamps G to slip on the cables. As the fill progresses and the cradle and clamps are shifted to the left the right hand ends of the cables are raised relatively to the left hand ends so that the cradle is suspended always approximately in the most nearly horizontal portions of the cables. When the cradle is at the center of the span the opposite ends of the cables will be at substantially the same elevations. When the cradle is at the left hand part of the span then the left hand ends of the cables will be lower than the right hand ends as shown in the full lines. This result may be secured by adjusting the cables at only one end of the span. Preferably, however, both ends are adjustable so that the same effect can be secured with one-half of the movement which would be necessary at a single end, and so that the suspenders F will need little or no

adjustment in the length as the work progresses from one end to the other end of the span.

The adjustment may be effected in a variety of ways. According to Figs. 2 and 3 the tower B carries a transverse bar J which is vertically adjustable between guides K near its ends and which carries saddles L forming the immediate point of suspension of the cables. Cross bar J is adjustably supported from the tower as by means of blocks M and a tackle or cable N passing through the blocks and down through guide pulleys O to a winch indicated typically by a pair of drums P feathered on a shaft Q driven by a crank R. The point of suspension is indicated in the full lines at substantially its highest point and by dotted lines at substantially its lowest point.

What I claim is:

1. An apparatus of the character described, including in combination cables, a cradle supported thereby and adjustable along said cables and means for effecting a vertical adjustment of one end of a span relatively to the other.

2. An apparatus of the character described, including in combination cables, a cradle supported therefrom and adjustable along said cables and means for effecting

a vertical adjustment of said cables at one end of a span independently of the position at the other end of the span.

3. An apparatus of the character described, including in combination cables, a cradle supported thereby and adjustable along said cables and means for effecting a vertical adjustment at each of the points of suspension at opposite ends of a span.

4. An apparatus of the character described, including in combination cables A, a cradle C, adjustable suspenders F supporting said cradle from said cables and connected to said cables at points adjustable along the span, and means for effecting a vertical adjustment of said cables at one end relatively to the other.

5. An apparatus of the character described, including in combination cables, a cradle, clamps G engaging said cables and supporting said cradle from said cables, and means for effecting a vertical adjustment of the cables at one end relatively to the other end.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

WILLIAM HEWITT.

Witnesses:

KENNETH B. HALSTEAD,
D. ANTHONY USMA.