J. F. CLAPP.

CABLEWAY.

APPLICATION FILED JAN. 29, 1912.

1,064,887.

Patented June 17, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

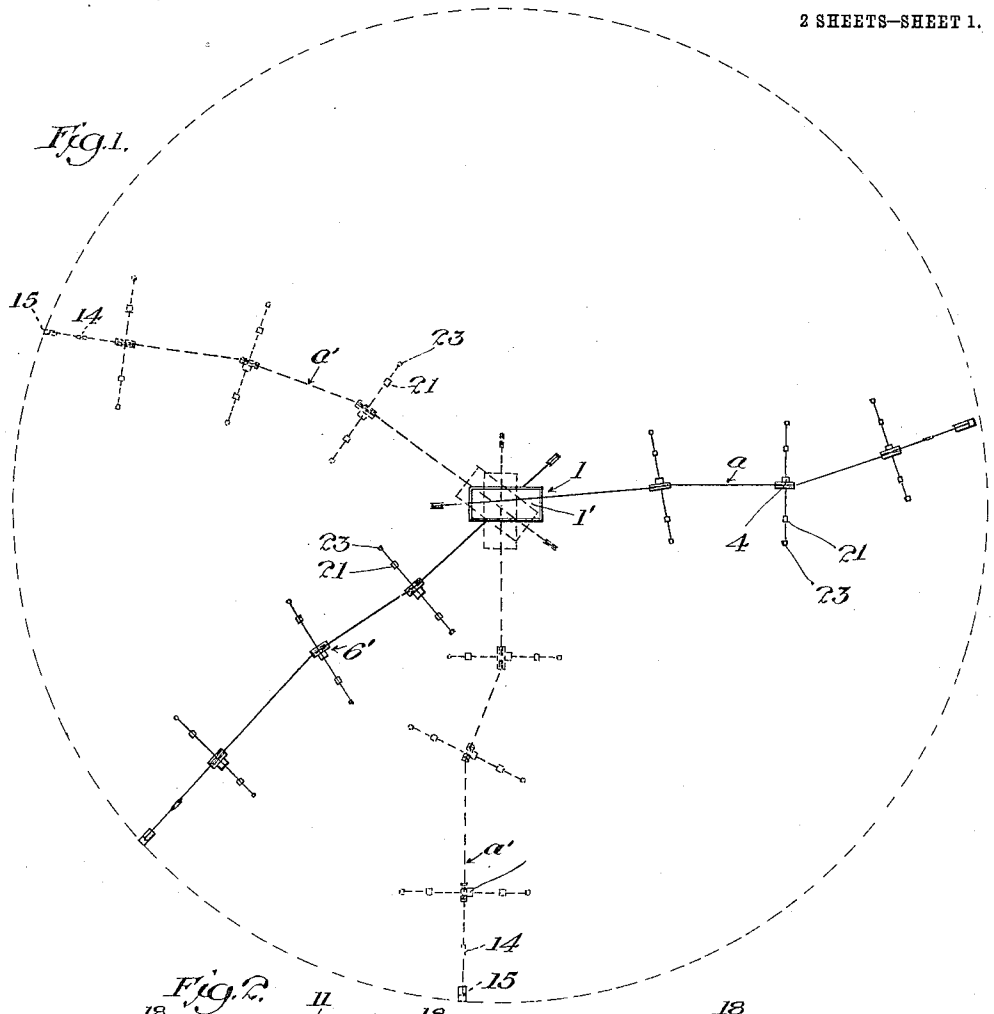
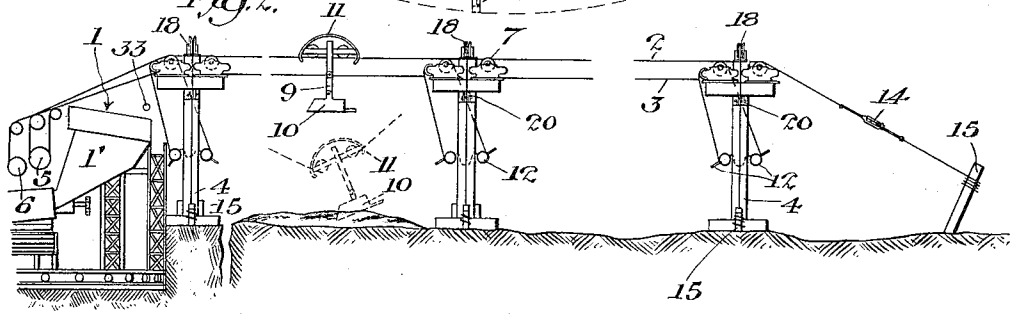


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

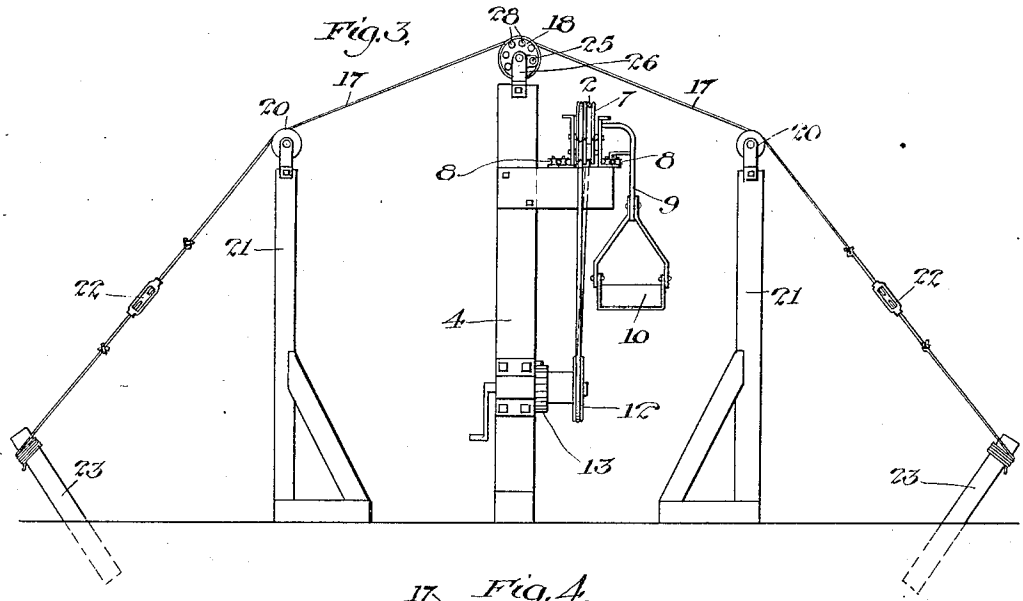


Fig. 4.

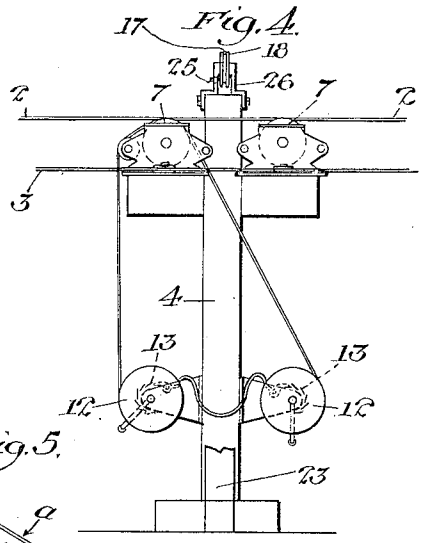
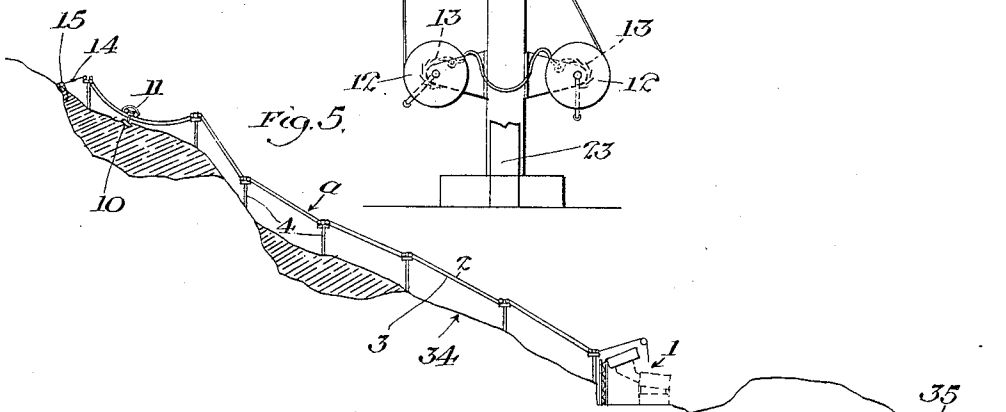


Fig. 5.



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UNITED STATES PATENT OFFICE.

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CABLEWAY.

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Application filed January 29, 1912. Serial No. 674,192.

To all whom it may concern:

Be it known that I, JOSEPH F. CLAPP, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Cableway, of which the following is a specification.

This invention relates to a cableway especially adapted for use in a system or apparatus for mining placer and similar deposits, the main object being to provide for collecting and treating the valuable material from a large extent of ground at minimum expense.

A further object of the invention is to provide a system which will be capable of taking the gold bearing or value material from any point within a given radius of a central or receiving point, whether such material be on the surface of the ground or under water.

Another object of the invention is to provide a cableway with means for adjustment of the cable transversely to its length at various points along the cable, so as to enable operation of the cable over a relatively wide zone of ground.

Other objects of the invention will appear hereinafter.

The accompanying drawings illustrate an embodiment of the invention, and referring thereto: Figure 1 is a plan of the system, somewhat diagrammatic. Fig. 2 is a side elevation of the system. Fig. 3 is a transverse section of the cable mechanism. Fig. 4 is a side elevation of one of the supporting posts or elements of the cable mechanism. Fig. 5 is a profile of a portion of a placer, including surface and river bed deposits, showing in elevation the application of the system thereto.

The system comprises a washing or gravel treating apparatus 1, which may be of any suitable or usual construction and is for that reason not herein specifically described, said apparatus or means being located preferably at some central point in the placer or field of operation, or at least at some point to which the material can most readily be transported from the different parts of the field by the cable mechanism.

The cable mechanism *a*, may be of any suitable construction and comprises cable means supported in such manner that it can be shifted to any part of the field and provided with excavating means which is adapted to take up the dirt or gravel at any part of the field along the length of the cable means. My invention is, therefore, not limited to the specific cable mechanism herein shown and described, as any other suitable cable mechanism may be used for the purpose.

The cable mechanism shown, comprises a supporting line 2, a hauling line 3, posts 4 for supporting said lines, a windlass 5 located preferably at the central point aforesaid, for holding the supporting line taut, a windlass or reel 6 also located at said central point for operating the hauling line, excavating and conveying means such as scrapers or buckets 10, carried by trolleys 11 running on the supporting line, and means for lowering or slacking said supporting line at any desired point to allow such scrapers or buckets to be operated to take up the earth at such point.

The supporting line may be carried by pulleys 7 mounted on posts 4, and held at the outer end by connection through a turn buckle 14 to a deadman or anchor post 15 at its outer end. The hauling line runs on pulleys 8 on posts 4, said hauling line being connected to the hangers 9 for scrapers or buckets, and being endless so as to operate the excavating and conveying devices in either direction. To enable slacking of the supporting line as above stated, the same may be run over windlasses or winches 12 on the several posts 4, said windlasses having ratchet devices 13 for normally holding the cable taut, but being releasable to enable slacking of the cable when required.

The posts 4 may be of any suitable construction. In order, however, to facilitate moving of the cable mechanism laterally at any desired point, I mount the posts as shown in Fig. 3, each post being connected to a guy cable 17 at its upper end, for example, by means of a pulley 18 journaled on the upper end of the post and having the guy cable 17 passing around said pulley and over guide pulleys 20 on side posts 21,

the ends of said transverse cable 17 being connected through anchoring means or turn buckles 22 to deadmen 23 at the respective ends thereof, whereby said transverse cable may be strained tight. The side posts 21 may be located far enough apart to provide for considerable lateral movement of the central post 4, without shifting the side posts so that in the excavating operation a strip of considerable width may be covered by shifting the posts 4. By means of the pulley 18, the post movably engages the transversely extending guy means 17, so as to be movable along said guy means while maintaining engagement therewith.

Another one of the cable mechanisms indicated at 6′ may be provided, for carrying off the debris, waste, or tailings, this cable mechanism being similar to that above described, but being adapted to receive the material from the washer, into its buckets, and to dump the material at any desired place, for example, into the holes left by the operation of the cable mechanism *a*. When posts 4 are adjusted to any position, they may be locked in such position by any suitable means, for example, by inserting a pin indicated at 25, through the supporting bracket 26 for the pulley 18, and through any one of the number of holes 28 in said pulley.

The operation of the system is as follows: The central washing or treating plant 1 having been installed at the desired point, the cable mechanism *a* is run out in any desired direction to the limit of the length of the cable, the posts 21 and deadmen 23 being set where convenient so as to embrace a strip of ground running in a more or less radial direction from the central point, but deviating at any desired point where it may be necessary to work the valuable ground to the best advantage. The posts 4 are set at any suitable positions along the transverse or guy cables 17, and the supporting cable or line 2 is passed over the pulleys 7 and winches 12, and connected at its outer end to a deadman 15, and at its inner end to the windlass 5, and is held taut by said windlass and winches. Said cable 2 on reaching any post 4, is passed over a pulley 7, then down and around winch 12, then around winch 13, leaving some slack between winches 12 and 13, and then up over a pulley 7 and on to the next post. The hauling line or cable 3 being mounted on the supporting pulleys 8 and connected at its inner end to the windlass 6, is operated as a continuous or endless cable, one run of the cable moving outwardly, while the other moves inwardly. By means of the hauling line 3, the excavating means 10 is run out along the supporting line or cable 2 to any part of the trip or zone along the cableway where it is desired to remove the material, and a portion of the supporting cable 2 between the two nearest posts 4 is then lowered by slacking up the winches 12 and 13 on said posts so as to allow the excavating means 10 to be lowered to the ground, the hauling line being sufficiently slacked at the portion thereof which is not under tension to allow this descent of the excavating means. The excavating means having then been filled with earth or material in any suitable way, the supporting line or cable 2 is again tightened and the excavating means is run back to the central point by means of the hauling line operated by the windlass 6. When the excavating means 10 comes in position over the washing apparatus or over a hopper 1′ thereof, it is dumped by any suitable means, for example, by engagement with a fixed stop 33 so as to discharge its contents into the washing apparatus. After the material has been washed the water may be carried away by the cable mechanism 6′.

When the portion of the ground accessible from any given position of the posts 4 at any part of the cable mechanism becomes worked out, the posts 4 may be shifted laterally as above described, along the guy lines 17 so that the excavating and conveying device can be brought to work on a new portion of ground and when all the ground along the line of operation of the cable mechanism has been worked out, the cable mechanism may be moved as a whole, being shifted around the central or treating apparatus 1 to different position, for example, as in dotted lines at *a′* in Fig. 1.

As illustrated in Fig. 5, the cable mechanism *a* may extend either upwardly along a slope 34, or downwardly, for example, to a river bed 35.

What I claim is:

1. A cableway comprising a cable, fixed means for supporting one end of said cable, means connected to the other end of the cable for holding it taut, guy means extending transversely to said cable, and anchored at both ends, and posts supporting said cable and movably engaging said guy means to be movable along the guy means while maintaining engagement therewith.

2. A cableway comprising a cable, fixed means for supporting one end of said cable, means connected to the other end of the cable for holding it taut, guy means extending transversely to said cable, and anchored at both ends, and posts supporting said cable and movably engaging said guy means to be movable along the guy means while maintaining engagement therewith, and means for holding the post from movement along the guy means.

3. A cableway comprising a cable, posts for supporting said cable, a wheel on each post, a guy line extending around said wheel,

means for holding the ends of said guy lines in fixed position, and means for locking said wheel in different positions to provide for adjustment of the post along the guy line.

In testimony whereof I have hereunto set my hand at Los Angeles, California this 23d day of January, 1912.

JOSEPH F. CLAPP.

In presence of—
ARTHUR P. KNIGHT,
GLADYS RUSSELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."