

CONSOLIDATED PIEDMONT CABLE CO. v. PACIFIC CABLE RY. CO.

(Circuit Court of Appeals, Ninth Circuit. October 24, 1892.)

No. 55.

1. PATENTS FOR INVENTIONS—INVENTION—ANTICIPATION—CABLE RAILWAY TENSION APPARATUS.

Letters patent No. 244,147, issued July 12, 1881, to Henry Root for a tension apparatus for the cable of a cable railway, consisting of a cable wheel mounted on a car, which is actuated by a heavy weight, and the wheels of which travel upon the rails of a larger frame or car adapted to slide upon a stationary track and living pawls to engage with a holding rack thereon, together with blocks and tackle for drawing the frame backward, the same being operated by passing the rope around a gipsy keyed to the shaft of the cable wheel, possesses patentable invention over the Eppelsheimer patent, (No. 193,939, issued August 7, 1877,) wherein a single car is actuated by a weight which is raised by turning a crank attached to a drum having suitable pawls.

2. SAME—INFRINGEMENT.

The Root patent is infringed by an apparatus which differs from it mainly in having the timbers of the lower car or frame cut away to let down the car carrying the cable wheel, so that both cars travel upon the stationary track.¹

Appeal from the Circuit Court of the United States for the Northern District of California.

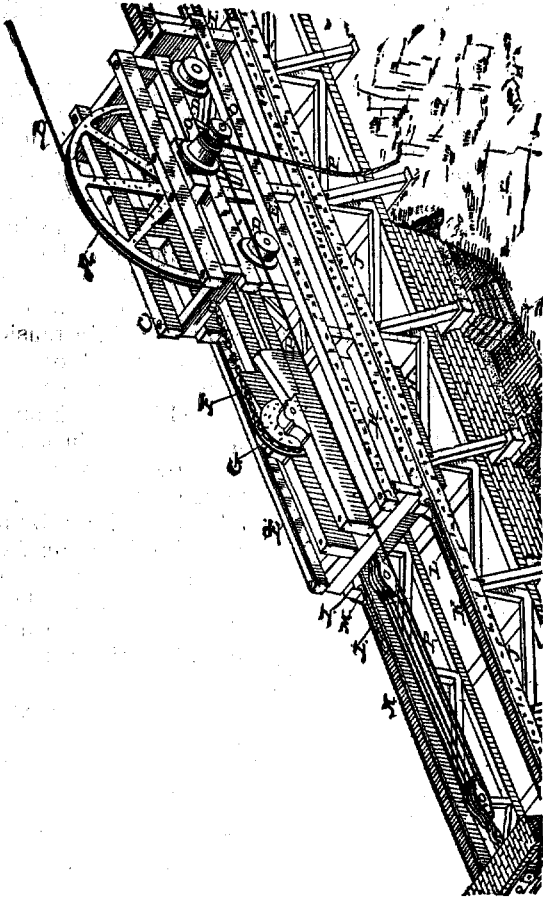
In Equity. Bill by the Pacific Cable Railway Company against the Consolidated Piedmont Cable Company for infringement of letters patent No. 244,147, issued July 12, 1881, to Henry Root, for a tension apparatus designed for taking up the slack of the cable in cable railways. The circuit court entered a decree sustaining the validity of both claims of the patent, declaring infringement, awarding a perpetual injunction, and referring the cause to a master for an accounting as to profits and damages. From this decree the defendant appeals. Affirmed.

The patentee in his specifications thus describes his apparatus:

"It consists of a wheel, A, grooved to receive a cable, B, which passes around it, as shown. The wheel, A, has its shaft journaled in boxes upon the framework of a car, C, which is provided with wheels, D. These wheels are flanged and run upon rails or timbers, E, which are preferably set in line with the cable. A heavy chain or rope, F, is secured to the rear end of the car, and passes backward over a pulley, G, and thence down to a weight, H, sufficiently heavy to keep the necessary tension on the cable. The rails on timbers, E, are united to a framework, I, which rests upon long timbers, J, also set parallel with the line of the cable. Upon the upper surface of the timbers, J, are formed or secured strong racks, K, and the rear ends of the timbers, I, have powerful hook pawls, L, attached to them. These pawls engage with the teeth of the racks, and thus hold the timbers at any point where they may be placed. In order to draw the timbers, J, back, when necessary, a powerful double block, M, with suitable ropes, P, connects the rear of the timbers, I, with the solid masonry, N, at the rear of the tunnel. A gipsy, O, is keyed to the shaft of the cable wheel, A, and the end of the rope, P, is carried from the block to the gipsy, around which it may be passed with a few turns, hanging loosely, so that the gipsy turns freely within it ordinarily.

"The operation will then be as follows: When the cable is first put to work the weight, H, will be drawn up close to the framework; but, as the cable stretches, the weight, keeping up the tension, gradually descends until it is at the bottom of the pit. It is then necessary to draw it up again. This I do by drawing upon the free end of the rope, P, until it binds upon the gipsy sufficiently for the latter to wind it, and thus act upon the blocks and draw the frame, I, backward until

¹See note to the following case.



the weight, H, is close up to the pulley, G, in the frame. The hook pawls, L, engage with the teeth of the rack, and thus hold the frame, I, in place. The tension is thus kept up, and the elongation of the cable is compensated without cutting it or having turns about a drum, and when the weight, H, has descended to the bottom of the pit, it is at once raised again by the block and tackle, without stopping or disturbing the cable."

The claims of the patent read as follows:

"(1) A tension and compensating apparatus for railway cables, consisting of the cable pulley, A, having its axis journaled upon the movable car, C, and the chains, F, and weight, H, in combination with the rails or timbers, E, upon which the car travels, mounted upon a frame, I, which moves upon a secondary track, J, substantially as and for the purpose herein described. (2) The car, C, moving upon the rails, E, and supporting the cable pulley, A, the weight, H, and chain, F, and the rails, E, moving upon a secondary tramway, J, in combination with the operating tackle and the holding racks and pawls, substantially as herein described."

Wheaton, Kalloch & Kierce, for appellant.
W. F. Booth, for appellee.

Before McKENNA, Circuit Judge, and ROSS and KNOWLES, District Judges:

McKENNA, Circuit Judge. The plaintiff's patent is for a tension apparatus for cable railways. Cables by use stretch, and means must be provided to take up the slack. It was usually done by a weight suspended in a pit, and attached to the cable wheel. Manifestly the bottom of the pit was the limit of the tension. That reached, the cable either had to be shortened by removing a part or by taking one or more turns around a drum or pulley. As an improvement on this method, William Eppelsheimer, August 7, 1877, obtained a patent, (No. 193,939.) The object of his invention was to automatically keep the cable or rope at a certain tension. It was accomplished by the cable wheel being mounted on a car which moved on rails. This car also carried a shaft on which was keyed a drum and a ratchet wheel, which engaged in a rack on the rails on which the car moved. The weight is suspended in a pit as in the old method, and is attached to a drum passing over a fixed pulley. The operation is that, when the cable stretches by use, the weight pulls on the drum, which is prevented from revolving by a pawl, and the cable pulley car is moved in the opposite direction from the pull of the main cable. Should the stretching weight touch the floor of the pit by turning the shaft, on which the drum is keyed, the stretching chain is shortened by winding around the drum. When the pull is by any cause by the main cable, the drum is made to revolve, to wind on it the stretching chain.

This was the state of the art when the patent sued on was granted, and it was hence contended that there is no invention in the latter. There are certainly similarities in it to the Eppelsheimer device, but there are differences also. In both the tension on the main cable is ultimately maintained by a weight, but the ways of raising it are not the same. In the Eppelsheimer patent it is raised by the operator winding the chain on the drum by means of a crank. In the plaintiff's patent it is raised by a car with a pulley moving backwards under the chain. There are other differences, and the testimony shows that they are more than formal. The result is a more automatic and compensating adjustment than obtained in the Eppelsheimer patent. The plaintiff's is a practical machine, but Mr. Bell, defendant's witness, and who devised its machine, hesitated to say that the Eppelsheimer device was a practical one, and admitted he would not have used its automatic devices. We must hold, therefore, and in this we are sustained besides by the presumptions which attach to the patent, that the plaintiff's patent is so far different in kind and degree to that which preceded it as to constitute an invention.

Has the defendant infringed it? The plaintiff claims the invention to be a cable pulley having its axis journaled upon a car which moves on rails or timbers, which again travel on a second track. It is called in the patent a "secondary track." In the defendant's device part of the rails and timbers which appear in plaintiff's device

are cut away, and the movable car which supports the cable pulley, and upon which it is journaled, as in plaintiff's patent, is let down so that the car which carries the cable wheel and the car (if it can be called a car,—in the plaintiff's patent the name is "rails or timbers") which carries the chain wheel moves on the same track. This change involved minor alterations, which are not necessary to detail. It is manifest there is an infringement. The purpose, principle, and operation of the machines are the same, and the defendant's escapes exact similitude of construction to the plaintiff's only by a few alterations. It is not a case of using the elements of a combination less than all. It is a case of using the same number of elements, and altering the form of one, and not materially altering the relation of any to the others. The objection of defendant to the question addressed to the witness Bell, as to the function of certain parts of the plaintiff's and defendant's devices, is treated by counsel as involved in the other assignments of error, and must be considered as disposed of by the decision on them. Besides, if error, it cannot be said to have been a prejudicial one. Judgment is affirmed.

CONSOLIDATED PIEDMONT CABLE CO. v. PACIFIC CABLE RY. CO.

(Circuit Court of Appeals, Ninth Circuit. October 24, 1892.)

No. 50.

1. PATENTS FOR INVENTIONS—INFRINGEMENT—COMBINATION OF OLD ELEMENTS—EQUIVALENTS.

The third claim of letters patent No 189,204, issued April 3, 1877, to William Eppelsheimer, for an "improved clamp apparatus for tramways or street railways," which covers a combination of five old elements, one consisting of friction rollers, is infringed by a device containing four of the same elements, and a fifth consisting of a bell crank or a toggle; for both of the latter are well-known devices, and the equivalents of the friction rollers.

2. SAME.

While a combination claim, composed of old elements, may not be infringed by using all but one of its elements, yet infringement results if an equivalent is substituted for the omitted element.¹

Appeal from the Circuit Court of the United States for the Northern District of California.

In Equity. Bill by the Pacific Cable Railway Company against the Consolidated Piedmont Cable Company for infringements of letters patent No. 189,204, issued April 3, 1877, to William Eppelsheimer, for an "improved clamp apparatus for tramways or street railways." The circuit court entered a decree sustaining the validity of the third claim, finding infringement thereof by defendant, perpetually enjoining the same in future, and referring the cause to a master to take an account of profits and damages. From this decree, defendant appeals. Affirmed.

The patent contains seven claims, but at the trial the issues were confined to the third claim, which reads as follows:

"The combination with the shank, E, as described, of the hinged clamping jaws, e³, together with the operating slide, F, its crossbar, f², and bearing rollers, f, as and for the purpose specified."

¹See note at end of case.