

ROOT V. SIOUX CITY CABLE RY. CO. *ET AL.*

*Circuit Court, N. D. Iowa.*

June 2, 1890.

PATENTS FOR INVENTIONS—PRIOR STATE OF ART—CABLE RAILWAYS—GRIP.

Letters patent No. 160,757, March 16, 1875, to William Eppelsheimer, for an Improvement in clamp apparatus for connecting street-cars with endless traveling devices, consisted of vertical pulleys to support the cable, and a lower clamping jaw, Which, when the car was being propelled, was raised so as to grasp the cable between it and an upper stationary jaw, thus raising the cable from the pulleys. When the car was at rest, the lower jaw dropped below the pulleys, releasing the cable, and allowing it to rest upon them. *Held* that, since there were already inventions for such clamping bars and for supporting pulleys, the patent could not be broadly construed, and was not, there fore, infringed by a device consisting of a movable upper jaw, which, when the car was in motion, pressed the cable down upon a stationary lower jaw, which was slightly below the surface of the pulleys, on which the cable rested, both while the car was in motion and at rest, and which, when the car was at rest, was raised, allowing the cable by its own strain to rise from the lower jaw.

In Equity. Bill to restrain infringement of letters patent.

*Coburn & Thacher*, For Complainant.

*C. L. Wright and Offield & Towle*, for defendants.

SHIRAS, J. Letters patent No. 160,757 were issued to William Eppelsheimer under date of March 16, 1875, for “an improvement in clamp apparatus for connecting street-cars,” etc., “with endless traveling devices.” The second claim in the patent is as follows: “In combination with the lower jaw, L, the transverse bar, O, with its vertical rope supporting pulleys, P, substantially as described.” This combination forms part of the gripping apparatus, which, by taking hold of the moving cable furnishing the motive power, propels the car upon the track. In effect, this grip consists of two jaws, one above the other, the upper jaw being fixed, and the lower movable, so arranged that when clamped together the cable is held between them; when opened, the lower jaw falls, and the cable drops upon the two pulleys at the ends of the bar O. The object of the device is to prevent friction between the moving cable and the lower jaw of the grip, when the car is at rest. Complainant, who is the present owner of the patent, claims that the defendant company uses a device upon its cars upon the line in Sioux City, Iowa, which is an infringement of this second claim of the patent named. The defendant questions the validity of the second claim of this patent on several grounds, and also denies that the device in use upon its line is an infringement.

In view of the fact that the validity of this patent was sustained in the case of *Root v. Railroad Co.*, 39 Fed. Rep. 281, I shall not re-examine that question, but shall pass at once to the issue of infringement. In the consideration of this question, it is necessary to ascertain the scope of this claim,—whether it is to be given a broad construction, as being essentially a foundation invention, or whether the prior state of the art requires it to be limited to the exact combination described. There are two features shown in the combination in question,—one being the clamping jaws, and the other the supporting pulleys to receive the weight of the cable, when released by the unclamping of the jaws. It is admitted by counsel for complainant in his argument that “it was old to have a gripping device with one movable and one stationary jaw for clamping the cable to transmit the power to the car, and release the cable whenever it was desired to stop the car.” The use of pulleys to carry the cable, and prevent friction and injury thereto, was also old. The novelty in the combination is claimed to consist in attaching to the ends of the gripping device two vertical pulleys, by which the cable is supported when the car is stopped, and thus the wearing of the lower jaw by friction is avoided, as well as avoiding the effect of friction on the cable itself. In the testimony of complainant’s expert witness, William A. Skinkle, it is said:

“I do not hold for a moment that Eppelsheimer was the first or only inventor to provide a supporting pulley or pulleys in a gripping device to carry the cable when it is released from the grasp of the gripping jaws, for Hallidie, Foster & Brown, Beauregard, and

others show pulleys that do or would serve this purpose; but in no one of them do I find such a combination of specific elements as the claim recites,”

If this be true, then Eppelsheimer was not the first inventor of the idea of attaching pulleys to: the grip for the purpose of supporting the cable when released from the grip. The novelty, there fore, in the Eppelsheimer Combination, seems to be reduced to dropping the lower jaw so that it will not be in contact with the cable when the car is at rest, thus escaping friction, and consequent injury thereto. In this combination, when the jaws of the grip are closed in order to set the car in motion, the cable is raised up from contact with the pulleys by the upward movement of the lower jaw. The gripping effect, there fore, is wholly produced by the clamping of the cable between the jaws, and the pulleys neither support the cable, nor aid in the clamping effect, and consequently they perform no function so long as the grip holds fast to the cable. When the cable is released by the opening of the jaws, it drops down upon the pulleys, and is Supported by them. To prevent friction between the cable and the lower jaw, the latter drops down below the surface of the pulleys on which the Cable rests, and thus contact with the cable is prevented. In the device in use upon the defendant's line of railway, the lower jaw of the grip is stationary, and the upper one is movable. The pulleys are so placed that when the car is at rest, and the cable is running over the pulleys, the strain upon the cable keeps it level with the upper surface of the pulleys, which is higher than the surface of the lower jaw, and hence no friction is produced by contact there with. When it is desired to connect the car with the cable, the upper jaw is pressed down, and the cable is clamped between the upper jaw, the lower jaw, and the surface of the pulleys. In this device the pulleys always serve a purpose. The cable always rests there on, and is always supported thereby.

In the device of the Eppelsheimer patent, friction between the lower jaw and the cable is prevented by having the lower jaw movable, and dropping it below the line of the cable. In defendant's device the lower jaw is stationary, but friction is prevented by suspending the cable upon the pulleys so that it will not touch the lower jaw when the car is at rest. In the one case, the jaw is moved away from the cable; in the other, the cable is removed from the jaw. It is argued that the difference between the devices having the lower jaw movable and the upper stationary, and the lower jaw stationary and the upper movable, is so slight that it should be held that the one is the equivalent of the other. If the question arose as to the invention of the clamp itself,—that is, a grip having one fixed and one movable jaw,—a mere interchange in the position of the jaws would not enable one to escape, the charge of infringement, but that is not the Way the question is now presented. What Eppelsheimer was seeking to do was to prevent friction between the cable and the grip. He sought to solve it by a combination, in which he put that form of a grip in which the lower jaw was movable, and he combined this lower movable jaw With the carrying pulleys in such shape that, when the grip was pitted upon the cable, the lower jaw carried the cable upward and free from the pulleys, and then, when the

grip was released, the cable returned upon the pulleys, and the lower jaw sank down out of

contact with the cable. In this combination, the arrangement of the lower jaw and the supporting pulleys, which are the main elements named in the claim, was such that, in the process of attaching and releasing a car from the cable, the lower jaw would first be below the line of the upper surface of the pulleys, and then above, and then again below, the same. It will be noticed that in the second claim of this patent there is no reference to the upper jaw of the clamp. The only elements mentioned are the lower jaw, the bar, O, and the supporting pulleys.

It is upon the working of these elements, and these alone, that Eppelsheimer relied for the accomplishment of the object sought, and, as already said, the manner in which he avoided friction between the lower jaw of his device and the cable was by having the lower jaw movable, and dropping it below the line of the moving cable. In other words, contact with the cable was prevented by using a movable lower jaw, so combined with the bar having attached the supporting pulleys that the jaw could be dropped sufficiently to escape contact, with the cable. In the defendant's device the other form of grip was selected; that is, the one having a fixed lower jaw. In this form of grip, friction between the cable and the lower jaw could not be avoided in the method followed by Eppelsheimer, for, the lower jaw being immovable, it could not be dropped, to avoid contact with the cable. The plan followed was to have the supporting pulleys and the lower jaw fixed immovably together, with the surface of the upper part of the pulleys, always higher than the surface of the lower jaw. When the grip is released and the upper or movable jaw moves upward, the strain upon the cable removes it from contact with the lower or fixed jaw. In the Eppelsheimer combination, the essential elements are the supporting pulleys and movable lower jaw, so combined together that when the grip is opened this lower jaw may drop below the level of the supporting pulleys, and to secure this it is essential that the lower jaw be movable. In the defendant's combination this movable lower jaw is not used. In view of the prior state of the art, abroad construction cannot be given to the Eppelsheimer patent. He was not the inventor of the grip having clamping jaws, one movable and the other stationary, nor of the cable supporting pulleys. In making the combination described in the second claim of the patent, he chose for one element therein that form of grip having a movable lower jaw, and the claim cannot, by construction, be now enlarged to embrace a combination which does not use a movable lower jaw, but entirely eliminates it. The charge of infringement not being made out, it follows that complainant's bill must be dismissed, at his costs.