

mold, except at its ends, where exist the annular spaces, conforms accurately in shape and dimension to the exterior of the can body, and the mold, when closed upon the can body, holds it firmly in an immovable position, while the heads are forced by the pistons from their place in the can-head chute into the annular spaces of the mold, and thereby applies them to the outside of the can body; the movement of the heads towards the can body being a horizontal one.

It is true that at each end of the jaws of the Wheaton machine is cut an annular channel for the reception of the can heads; but it is not true that that machine contains any piston, or any equivalent therefor, for forcing the can heads into those annular spaces, and thereby applying them to the outside of the can body. On the contrary, in the Wheaton machine, the can heads reach their seat in the annular spaces of the jaws by force of their own gravity, and they are carried in that position in the jaws as they approach each other crosswise of the machine, without any change in the position of the can heads until they are forced on the can body by the coming together of the jaws. The device which, in the Wheaton machine, forces the heads on the can body is not the equivalent of the piston of the Norton machine, for it accomplishes that result, not by forcing the can heads into the annular spaces, and thereby applying them to the outside of the can body, but by bringing the jaws together in the essentially different operation already described. The absence of the piston of the Norton device, or any equivalent therefor, from the Wheaton device is of itself enough to make it necessary to adjudge that the device of Wheaton is no infringement upon the Norton device; the piston being an essential element of each of the combinations covered by the patent of the complainants.

Judgment reversed, and cause remanded, with directions to the court below to dismiss the bill at complainants' cost.

MAYOR, ETC., OF CITY OF NEW YORK et al. v. AMERICAN CABLE RY. CO.

(Circuit Court of Appeals, Second Circuit. December 2, 1895.)

1. PATENTS—INVENTION—CABLE RAILWAYS.

Merely connecting, by a rod, two pulleys, previously in use for carrying the cable of a cable railway, so that they can be raised simultaneously, by a looped wire in the hands of the conductor, for the purpose of lifting the cable to the grip, involves no patentable invention. 56 Fed. 149, and 68 Fed. 227, reversed.

2. SAME.

The Miller patent, No. 271,727, for an improvement in cable railways, consisting in a device for raising the cable to the grip, *held* void, as to claim 6, for want of invention. 56 Fed. 149, and 68 Fed. 227, reversed.

Appeal from the Circuit Court of the United States for the Southern District of New York.

This was a bill by the American Cable Railway Company against the mayor, aldermen, and commonalty of the city of New York, and the city of Brooklyn, for alleged infringement of a patent relating to cable railways. The circuit court rendered a decree for complainant, and defendants appeal.

Francis Forbes, for appellants.

Chas. H. Williams and D. Henry Driscoll, for appellee.

Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

SHIPMAN, Circuit Judge. The complainant, as the owner of letters patent No. 271,727, dated February 6, 1883, issued to Daniel J. Miller, an inventor, for improvements in the construction of cable railways, brought a bill in equity against the cities of New York and Brooklyn, to enjoin them, as the owners of the Brooklyn Bridge, against the use of the invention described in claim 6 of said patent. Upon final hearing, Judge Coxe sustained the validity of this claim, found that it had been infringed, and a decree was entered for the complainant. 56 Fed. 149. Upon appeal, the circuit court of appeals was of opinion that the proof of title was insufficient, and reversed the decree for the purpose of enabling the complainant to perfect its proof. 60 Fed. 1016, 9 C. C. A. 336. Evidence of title was thereupon given, and, by leave of court, an Italian patent, granted to Edmund Barnes, dated December 31, 1868, was introduced as an anticipation of the Miller invention, and the cause was argued before Judge Wheeler upon the sufficiency of proof of title, the corporate existence of the plaintiff, and the effect of the Italian patent, who found each of these points in favor of the complainant, and directed that the original decree should be re-entered. 68 Fed. 227. The appeal record contains a long assignment of errors, many of which relate to the alleged improper admission of evidence, and the cause has been argued upon all the points made in the circuit court.

We perceive no adequate reason to question the correctness of Judge Wheeler's conclusions, or of Judge Coxe's finding in regard to infringement. The debatable question in the case, in our opinion, is that of the patentability of the improvement described in the sixth claim of the patent. The object of that part of his invention to which this claim relates is said, in the specification, to consist in having the cable supports, or carrying pulleys, "so arranged that the cable can be raised sufficiently to be received into the gripper at any point on the road." The mechanism is described, in the specification, as follows, omitting the reference letters:

"Pulleys are placed in frames, said frames provided with a rocking shaft or hinge, and having a positive rest. As the cable is always moving in one direction, it has a tendency to keep the carrying pulleys in position. Two of these pulleys are connected by means of a chain or rod, at such points in the road as it may be necessary to pick up a cable, but are used separately and without rod or chain when used merely for carrying pulleys for cable, although the pulleys may be used singly to raise the cable if it [the cable] should be lost from gripper on the route. The line of cable, when in gripper, is generally from eight to nine inches above its regular line when running on the pulleys. Some grippers are so arranged that, if they drop the cable, there is no way of picking it up, but with my carrying pulleys the operator has only to step back of his car, reach through slot with a small wire having a loop on one end, and hook onto frame, and, with a vertical lift, frame, H, will swing and raise the cable, when it will run into the gripper."

Claim 6 is for "the two carrying pulleys, D, D, mounted and hinged, when connected by a chain or rod, as shown, to insure their being simultaneously raised, for the purpose specified." This apparatus,

as described in the patent, was placed in the conduit of a cable railway, and was to be used upon a single car, and, as the specification shows, was to be operated in a very simple manner, by a small wire having a loop at one end. The necessities of the service upon the open track of the Brooklyn Bridge require that the cable should be supported for the length of four cars. Heavy mechanism is, therefore, needed, and a system of levers is used, by which great power is obtained; but the gist of the patented improvement, which consisted in the simultaneous raising of pulleys connected by a rod, exists in the extensive system by which the pulleys are raised and lowered.

It is conceded that a single lifting frame for a cable-carrying pulley had been used, and that the cable had been supported between two pulleys, before the date of the Miller invention. The Fothergill-Cooke English patent, sealed February 13, 1872, described a series of cable supporting and lifting pulleys, and the French patent to Messrs. Duez, dated November 22, 1875, described two lifting pulleys, but such pulleys had not been connected together, so as to be raised and lowered simultaneously. The connecting rod, by which both pulleys could be simultaneously raised, constituted Miller's advance in the art. It was a useful improvement, because the cable, when raised by a single pulley, "fell away in angular sections from either side of the pulley, and could be engaged by the gripper at one point only," whereas the connecting pulleys hold the cable in a level position. The question is whether, two disconnected pulleys having been known, and the obvious disadvantages from such disconnection having become apparent when the cable-railway system came into use, it was a patentable invention to join the two pulleys by a rod, so that they could be raised by a looped wire in the hand of the conductor. If it is of importance to simultaneously raise two disconnected but adjacent objects of comparatively small size, which can be accomplished by a small expenditure of force, it would seem natural to connect them by a rod, and also that the experiment would be within the ordinary scope of the mechanic who is in charge of the work of construction. The simplicity of the device may lead us to disregard the inventive skill which produced it, but it was, in our opinion, an ordinary mechanical experiment appearing in a new place. When it is enlarged to meet the needs of enlarged train service, the looped wire becomes a series of levers, but the improvement, in its original and patented form, was an obvious and natural one.

Inasmuch as the improvement described in claim 6 is not deemed to have been patentable, the decree of the circuit court is reversed, with costs of this court.

LONG et al. v. POPE MANUF'G CO.

(Circuit Court, D. Massachusetts. November 21, 1895.)

PATENTS—INFRINGEMENT—STEAM ROAD VEHICLE.

The Long patent, No. 281,091, for an improved steering head for road vehicle, construed as showing no new function except that of shedding dirt from the bearing surfaces of the friction balls, and held not infringed.