

to have the parts exposed so that either or all of the above-mentioned operations can be performed."

The specification describes other mechanical improvements which may be of value, but which clearly were not claimed, and which, therefore, we need not notice. The substance of the device, as patented, is only a rearrangement of the parts, and a change of the proportions, of what was otherwise old, each of which is of that common class ordinarily involving no invention; resulting also, in the case at bar, in no new function, and in no new advantages of any striking or extraordinary character. We cannot, therefore, hold that the device was patentable. The complainant urges on us the salability of the improved cutter, but in this respect the case falls within the rules of *Manufacturing Co. v. Holtzer*, 15 C. C. A. 63, 67 Fed. 907, and of *Codman v. Amia*, 70 Fed. 710. Moreover, for aught that appears, the salability of the cutter came from the improved features which are not covered by the patent. Let the respondent file a draft decree dismissing the bill, with costs, on or before June 30, 1897; and the complainant corrections thereof on or before July 1, 1897.

KELLY et al. v. SPRINGFIELD RY. CO. et al.

(Circuit Court, S. D. Ohio, W. D. June 29, 1897.)

PATENTS—INFRINGEMENT—ELECTRIC RAILWAYS.

The Green patents, Nos. 465,407 and 465,432, for improvements in electric railways; in which the electrical current was conducted along insulated track rails, the car wheels serving as contact devices, if valid at all, are not infringed by the overhead trolley electric railway system now in use.

This was a suit in equity by Oliver S. Kelly and the General Electric Company against the Springfield Railway Company and others for alleged infringement of certain patents for electric railways. On final hearing.

Butterworth & Dowell and F. P. Fish, for complainants.

Paul A. Staley, Kerr & Curtis, and James H. Hoyt, for respondents.

SAGE, District Judge. This suit is for the infringement of letters patent Nos. 465,407 and 465,432, issued December 15, 1891, to George F. Green, assignor to complainant Oliver S. Kelly, for improvements in electric railways, upon applications filed, respectively, August 19, 1879, and May 15, 1886, the latter application being a division or continuation of the former.

The record covers over 1,500 pages of printed matter, and the briefs over 350 pages. It would be impossible, within the proper limits of an opinion, to consider the evidence or the arguments in detail. I shall not attempt to do more than state conclusions in general terms.

The gist of the inventions set forth and claimed in the patents consists in the use of a stationary source or generator of electricity, connected through conductors extending along the line of travel, and

composed wholly or in part of the track rails, to an electro-dynamic motor so fixed upon the car as to impart motion thereto. The wheels of the car serve as contact devices to maintain continuous electrical connection between the source or generator and the motor on the car. All the claims of the patents are conceded to be for combinations, none of the elements of which were invented or discovered by the patentee. The claims of patent No. 465,407 are as follows:

"(1) The combination, substantially as set forth, of a railway track, one or more stationary means of electric supply, electrical conductors extending from said means of electric supply along the lines of said track, and consisting wholly or in part of the rails thereof, vehicles moving along said track, electro-dynamic motors, whose coils are constantly excited so long as the poles of said motors are in circuit with the means of electric supply fixed upon said vehicles for imparting motion thereto, and wheels supporting said vehicles upon the track, and also serving to maintain continuous electrical connection between said means of electric supply and motors, substantially as described.

"(2) The combination, substantially as set forth, of a railway track, one or more stationary electric batteries, electrical conductors extending from said batteries along the lines of said track, and consisting wholly or in part of the rails thereof, vehicles moving along said track, electro-dynamic motors, whose coils are constantly excited so long as the poles of said motors are in circuit with the electric batteries fixed upon said vehicles for imparting motion thereto, and wheels supporting said vehicles upon the track, and also serving to maintain continuous electrical connection between said batteries and motors, substantially as described.

"(3) The combination, substantially as set forth, of a railway track, one or more stationary means of electric supply, electrical conductors extending from said means of electric supply along the lines of said track, and consisting wholly or in part of the rails thereof, vehicles movable along said track, electro-dynamic motors fixed upon said vehicles for imparting motion thereto, and wheels supporting said vehicles upon the track, and also serving to maintain continuous electrical connection between said means of electric supply and said motors, substantially as described.

"(4) The combination of a railway track, one or more stationary means of electric supply, electrical conductors extending from said means of electric supply along the lines of said track, and consisting wholly or in part of the rails thereof, vehicles moving along said track, rotating electro-dynamic motors fixed upon said vehicles for imparting motion thereto, and wheels supporting said vehicles upon the track, and also serving to maintain continuous electrical connection between said means of electric supply and said rotating motors, substantially as described."

The claims in patent No. 465,432 are as follows:

"(1) The combination of one or more stationary sources of electric current, a conducting circuit formed wholly or in part of an insulated line of rails of a railway track, a wheeled vehicle movable upon or along said line of rails, one or more rotating electric dynamic motors mounted upon said vehicle for propelling the same, and included in said circuit of conductors, and a circuit controller placed on said vehicle, and also included in said line of conductors, substantially as described.

"(2) The combination of one or more stationary sources of electric current, the conducting circuit formed wholly or in part of an insulated line of rails of a railway track, a wheeled vehicle movable upon or along said lines of rails, one or more rotating electric dynamic motors, whose coils are continuously excited so long as the poles of said motors are in circuit with the means of electric supply, mounted upon said vehicle for propelling the same, and included in said circuit of conductors, and a circuit controller placed on said vehicle, and also included in said line of conductors, substantially as described.

"(3) The combination of one or more sources of electric supply, a railway track, a wheeled vehicle moving upon or along said track, a conducting circuit com-

posed wholly or in part of insulated conductors extending along the line of travel of said vehicle, one or more rotating electric motors mounted upon said vehicle for propelling the same, and included in said circuit of conductors, and a circuit controller placed on said vehicle, and also included in said circuit of conductors, substantially as described."

The construction and mode of operation of defendants' electric railway is shown in the following stipulation:

"It is hereby stipulated, for the purposes of this case, by counsel for the respective parties, as follows:

"First. That the defendants have operated, for regular commercial purposes, an electric street railway in the city of Springfield, in the Southern district of Ohio, subsequent to the grant of letters patent of the United States, Nos. 465,432 and 465,407, mentioned in the bill of complaint herein, and prior to the filing of the said bill of complaint. The defendants have continued to operate, and are still operating, the said electric railway.

"Second. That the said electric railway, operated as aforesaid by the defendants, is constructed in accordance with the diagram put in evidence, and marked 'Complainants' Exhibit Diagram of Defendants' Electric Railway,' wherein A indicates a stationary source of electric supply, consisting of a dynamo-electric machine of the ordinary Westinghouse type. The positive pole of the dynamo is connected electrically with an insulated trolley wire, B, extending along the line of the road, and insulated and suspended over the street in the customary manner. The cars, one of which is shown in the diagram at C, are equipped with a trolley of the ordinary so-called 'Nuttall type,' making a traveling under-neath contact with the trolley wire, B. From the trolley the electrical circuit passes through a rheostat, D, a reversing switch, E, the armature, a, field magnets, m, of the electro-dynamic motor, M, and thence, through the wheels of the car, to the track rails, which are connected electrically with the negative pole of the dynamo, A. The motor is of the ordinary Westinghouse type series wound and comprising field magnets and a rotating armature, which drives the car by gearing between the armature and axle. The circuit is indicated on the diagram by arrows, and may be traced from part to part in detail as follows: From the positive pole of the dynamo to the trolley wire, the trolley, the rheostat, one member of the reversing switch, the armature of the motor, the second member of the reversing switch, the field-magnet coils, and thence, through truck-frame and wheels of the car, to the rails and the negative pole of the dynamo.

"By throwing the reversing switch into the dotted-line position, the direction of the current in the armature of the motor is reversed relatively to that in the field magnets, so that, by operating the reversing switch, the rotation of the armature and the movement of the car may be reversed at will."

The specification of Green's first patent states that independent conductors may be used, but the claims describe conductors consisting wholly or in part of the rails of the track, and extending from the means of electrical supply along the lines of the track. The rails are mounted on string pieces insulated to prevent the escape of the electric charge. The insulators are shown in the drawings. The car wheels are the only contact devices shown or described in either patent. All the railways built by Green had elevated tracks. The stipulation as to the construction and mode of operation of defendants' railway is sufficiently clear without the diagram. The defendants' railway has a track, but not the insulated track of the Green patents. It has conductors connecting the stationary generator with the moving car, but they do not consist wholly or in part of the track as described in the patents. One of the defendants' conductors is entirely separate from the track rails, and is located, not along the lines of the rails, but overhead, and away from both rails. The wheels of de-

defendants' car do not and cannot serve to maintain continuous electrical connection between the generator and the motors, as specified in the claims. A drawing of the motor with overhead conductor is shown in complainants' record. Green testifies that it was made as early as 1874. It is attested by the signatures of five witnesses, three of whom make circumstantial statements, one purporting to have been made October 1, 1874, another June 4, 1883, and still another without a date, but made according to Green's testimony previous to 1875. All of these refer to statements made by Green respecting his invention. No one of them, however, refers to the overhead conductor. It does not appear that Green ever constructed or attempted to construct an electric railroad, or even a model, having an overhead conductor and separate contact device, such as is shown in this drawing. There is no explanation of the contact device, which, as shown in the drawing, is altogether crude and imperfect, and not such as to furnish any idea of how it was to be connected with the motor, or operated. In his application for a patent filed some five years after the date which he fixes for the making of this drawing, he made no mention of an overhead wire, or of any contact device separate from the wheels. This significant fact, taken in connection with the very careful attestations shown, is calculated to awaken a strong suspicion as to the truth of Green's testimony relating to the drawing, although he is corroborated by one of the attesting witnesses. But, without questioning the genuineness of the drawing or the authenticity of the attestations, the fact that the device which it represents was not even alluded to in the subsequent application for a patent raises a strong, if not conclusive, inference that Green had abandoned the idea of an overhead conductor, and fallen back to the use of the rails and wheels exclusively. Certainly, there is nothing in the drawing itself which would suggest the principle of the trolley now in universal use. That was the invention of Van Depeole, whose application for a patent therefor was filed March 12, 1887. The patent was granted April 1, 1890. Judge Coxe, in his opinion filed June 19, 1895, in the case of Thomson-Houston Electric Co. v. Elmira & H. Ry. Co., 69 Fed., at page 261, said:

"Even after the necessities of the situation had evolved the fundamental principle of taking the electricity from an overhead conductor, the difficulties in finding suitable contact and switching devices for a long time prevented commercial success, and the solution of the problem taxed the ingenuity of a large number of inventors. Although the electric road of to-day is a composite organism, to which many ingenious and able men have contributed, yet it cannot be denied that to Van Depeole, more than to any other man, belongs the credit of having made it a practical working success. His contributions to the art rapidly supplanted the crude and tentative prior structures, and have continued in use until the present time."

This is a clear and correct statement of the state of the art prior and up to the date of the Van Depeole invention, and of its importance and value. All of Green's electric railway constructions were experimental. They were no more practical than was Colton's device, which is relied upon by defendants as an anticipation, and scouted by counsel for complainants as only a toy, intended

to amuse the audiences to which Colton lectured. Such an electric railway as is described in the Green patents is impracticable for actual use. The track, insulated and elevated as shown in the drawings, would be such an obstacle to ordinary travel, and to crossing by vehicles, as to be a nuisance in the streets of any city. The insulation of the rails would be, if not impossible, so expensive as to be burdensome beyond endurance. His theory of conducting electricity along one of the rails, or by means of an independent conductor placed parallel with one of the rails, and up through the wheels of the cars to the motor, using the other rail for the return circuit, has never been in commercial use, and cannot be made to operate for such use, although it may be in a measure successful in an experimental way. With the top of the rail placed flush with the surface of the street, as is the construction with the best rail in use, or so nearly flush as to permit the free crossing by vehicles, insulation would be simply impossible. Any attempt to use it in whole or in part as a conductor of electricity to the motor would be like undertaking to make such conductor of a wire continuously grounded. It would be utterly impracticable. By no proper construction can anything described or claimed in either of his patents be held to include the overhead wire and the trolley system used by the defendants. It follows that the defendants do not infringe the Green patents, even if they are valid. It is not necessary, therefore, to consider the question of their validity. The bill will be dismissed, at the costs of the complainants.

TYLER et al. v. T. E. RICH CO.

(Circuit Court, D. Massachusetts. June 9, 1897.)

No. 393.

PATENTS—VALIDITY AND CONSTRUCTION—INFRINGEMENT.

In the Tyler patent, No. 389,826, for improvements in machines for smoothing and finishing blind slats, the "wedges for regulating the pressure of the springs" held to be an essential element of the third claim; and said claim held valid and infringed.

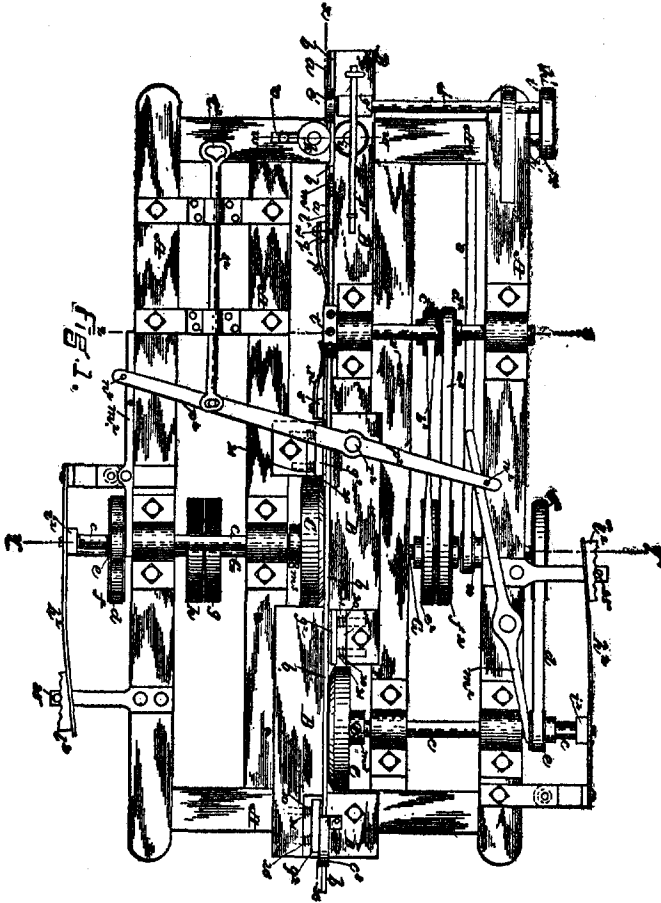
This was a suit in equity by Arthur F. Tyler and others, trustees, against the T. E. Rich Company, for alleged infringement of letters patent No. 389,826, to Arthur F. Tyler, for improvements in machines for smoothing and finishing blind slats. On final hearing.

Chas. C. Morgan and John S. Richardson, for complainants.
William S. B. Hopkins, for defendant.

COLT, Circuit Judge. The bill in this case is brought for the infringement of a patent granted to Arthur F. Tyler, September 18, 1888, for improvements in machines for smoothing and finishing blind slats. The patentee declares that his "invention consists in certain novel combinations of parts and details of construction." The charge of infringement is confined to the third claim, which reads as follows:

"(3) In a machine for smoothing and finishing blind slats, the combination, with the shafts, c, c, and the abrading disks, C, C, of the pressure springs,

h^2 , h^2 , pivoted at one end, and adapted to be swung back out of the way of said shafts, said springs being provided with wedges for regulating the pressure of the springs, substantially as and for the purpose set forth."



With respect to this claim, the questions in controversy are—First, whether the wedges are a material element of the claim; and, second, whether the defendant, in its machine, uses wedges or an equivalent therefor.

Upon the first point, it seems to me that from the language of the claim, taken in connection with the proceedings in the patent office, the "wedges for regulating the pressure of the springs" must be considered a material element of the combination.

Upon the second point, we find that in place of the notched wedges with fixed pins, contained in the Tyler device, the defendant uses movable stop pins adjustable in holes. In mode of operation, and in the result produced, the movable pin adjustable in holes is plainly an equivalent of the stationary pin and notched wedge of the Tyler machine.

It is also contended that the Tyler machine was in public use for more than two years prior to the application for the patent. Upon careful examination of the testimony, I am of the opinion that although the patented machine was in process of development, or in an experimental stage, for a number of years, the machine was not perfected until within a few months prior to the application for the patent. The defendant's machine infringes the third claim of the Tyler patent, and a decree may be drawn accordingly. Decree for complainants.

THE JOHN R. PENROSE v. THE WILLIAM J. LIPSETT.

(District Court, E. D. Pennsylvania. June 28, 1897.)

COLLISION IN CHANNEL—SAIL GETTING UNDER WAY.

A schooner going down Delaware Bay under sail, and colliding with another schooner, which, having been anchored on the west side of the channel, heading northeast, was getting under way, paying off southward to go to sea, held solely in fault, in that, being bound to keep out of the way, she attempted to pass to the east across the other's bow, when it was uncertain how far east the latter would go in making the turn, instead of taking the safe course to the westward, under her stern.

This was a libel in rem in behalf of the owners of the schooner John R. Penrose against the schooner William J. Lipsett to recover damages resulting from a collision between the two vessels in Delaware Bay.

The following questions were submitted to Capt. Jarvis Call:

(1) Are you a member of the board of survey in admiralty at the port of Philadelphia?

(2) How much experience have you had as a master of sailing vessels?

(3) Supposing the situation of the Penrose to have been such as her officers described in their testimony, could she have come about southward conveniently, within less space than she covered in doing so? If she could, state about how much less.

(4) Could the Lipsett have safely turned westward at the time she shifted eastward and thus have avoided the threatened danger?

Jarvis Call, master, will please read the testimony of the officers above named and answer the foregoing questions in writing.

Wm. Butler, J.

June 22, 1897.

To the Honorable William Butler, Judge of the District Court of the United States for the Eastern District of Pennsylvania:

A. 1. I am a member of the board of surveyors in admiralty at the port of Philadelphia.

A. 2. I have been master of sailing vessels for thirty years.

A. 3. After carefully considering the positions of the Penrose and the state of the tide and wind at the time, it would be difficult to say just what distance it would take to wear said vessel around. Under favorable circumstances where there was no tide, and in smooth water she ought to go around in three or four times her length when the anchor is off the bottom.

In a strong tideway it is not an unfrequent occurrence for a vessel to fall off until she gets the tide on her beam and stops, still continuing to forge ahead. I have known instances of vessels in a strong tideway to go for miles before paying off, the vessel being under the influence of the tide and not her helm.

A. 4. Considering all the circumstances, the state of the tide, the direction of the wind, the management of the helm and sails of the Penrose, it is my judgment that she did everything practicable to wear around as soon as possible. The state of the tide did not aid her, striking her side it tended to stop her from falling off. She was more under its influence than of her helm and would thus be retarded in getting around.