I do not think that the improvement described in claims 37 and 38 possesses the element of patentable invention. It is an obvious method of construction, when the reproducer is mounted in a hinged arm.

Let there be an interlocutory decree against an infringement of claims 19, 20, 21, 22, 23, and 24, and for an accounting, which will be drawn substantially in the form settled by Judge Grosscup in the Amet Case, and printed in 74 Fed. 1008.

THOMSON-HOUSTON ELECTRIC CO. v. UNION RY. CO. et al.

(Circuit Court, S. D. New York. June 11, 1898.)

1. PATENTS—INVENTION.
An improvement which consisted in pivoting the contact arm of an underrunning trolley system to a rotating support on the top of the car, to which the spring which presses the arm upward is also attached, rather than to the car itself, so that the arm may be swung from one end of the car to the other, required only mechanical skill.

2. SAME—CONTACT DEVICES FOR ELECTRIC RAILWAYS.
The Van Depoele patent, No. 495,383, for improvements in overhead contact devices for electric railways, is void, as to claims 11, 12, and 13, for want of patentable invention.

This was a suit in equity by the Thomson-Houston Electric Company against the Union Railway Company and the Walker Company for alleged infringement of the Van Depoele patent for improvements in overhead contact devices for electric railways.

Frederic H. Betts, for complainant.
Charles E. Mitchell, for defendant.

SHIPMAN, Circuit Judge. This is a bill in equity based upon the infringement of claims 11, 12, and 13 of letters patent No. 495,383, applied for on June 20, 1888, and issued on April 11, 1893, to the administrators of Charles J. Van Depoele, for improvements in overhead contact devices for electric railways. The application for the patent was sworn to by Van Depoele on November 15, 1887. The three claims which were infringed are as follows:

"(11) In an electric railway, the combination of a car, an overhead conductor, a standard on the car, a rotating support thereon, an inclined contact-carrying arm hinged upon said support, and a tension spring secured so as to rotate with the support, and acting upon the said arm, for holding the contact device in position. (12) In an electric railway, the combination, with a car, of a standard on the car, a rotating support thereon, an arm hinged upon said support, and provided with a grooved or flanged contact device for engaging with a suspended conductor, and a tension spring secured so as to rotate with the support, and acting upon the said arm, for holding the contact device in position. (13) A reversible contact device for an electric railway vehicle, consisting of a standard, a rotating support thereon, a contact-carrying arm hinged upon said support, and a tension spring secured so as to rotate with the support, and acting upon the contact-carrying arm, for holding the contact device in position."

The inventor said in his specification that it related to improvements upon the invention which formed the subject of a prior ap-

plication for letters patent which was filed March 12, 1887. Upon that application, letters patent No. 495,443 were granted to Van Depoele's administrators on April 11, 1893, which described his basic invention for a "long, swinging, pivoted, hinged, and upwardly spring pressed arm, extending from a support on the top of the car, and equipped with an underrunning contact device." This invention has been frequently described, in the language of an expert witness for the complainant, in the Winchester Ave. Case, 71 Fed. 192, as follows:

> It "consists generally in an eletric railway, having an overhead conductor, and a car for said railway, provided with a contact device carried by the car so as to form a unitary structure therewith, and consisting of a trailing arm hinged and pivoted to the car, so as to bridge the space between it and the conductor, and move freely both laterally and vertically, and said arm carrying at its outer end a contact device capable of being pressed upward by a suitable tension device into engagement with the underside of the conductor."

Van Depoele exhibited his trolley mechanism, as thus constituted and mounted upon cars, at Toronto, in September, 1885; and its novelty, its importance, and its inventive character are now thoroughly established, although, in respect to the letters patent which were issued upon it, the court of appeals in this circuit has held that after the original application was divided, and when the patents were issued upon the divisional applications, there was not an adequate line of separation between the claims of the patent No. 495,443, intended by the solicitor to be the generic one, and its predecessor, intended by him to be of a more limited character. Thus far, in the invention, the tension device was so secured that the arm must be trailed in one direction, and there were no means of reversing the contact device, and therefore the car must be reversed at the end of the route. A very simple means by which Van Depoele reversed the position of the contact arm is shown in Fig. 6 of the patent in suit, but it is not within these three claims. A post is fastened in the central portion of a board which is fastened upon the top of the car. In the top of the post a forked stem is pivotally supported, between the extremities of which the contact arm is secured, one end of which engages the underside of the conductor. To the other end of the arm a tension spring is attached, which is secured to the board by a stationary hook. The board is provided with a similar hook at its opposite end, and the position of the contact arm can be reversed by detaching the spring from one end of the board, turning the arm upon its pivot, and attaching the spring at the opposite end of the board. This inconvenient method of fastening the spring required that it should be hooked to the top of the car, and should subsequently be disengaged therefrom whenever a reversal was needed. The contact arm should not only be hinged upon a rotating support, but the spring should rotate with the arm, and enable it to have a more free lateral movement. Van Depoele made the required improvement,—whether before or after he made the one shown in Fig. 6 is not apparent in the record,—and gave a public experimental test and exhibition of it, in connection with his whole trolley system, at New Orleans,

in December, 1885. It is described in the three claims which have been quoted, and, as shown in the drawings, consists in a rotating sleeve around the post at the top of the car, upon which sleeve the contact arm is hinged, and in the attachment of the spring to the rotating support. The inventor said in his specification, with reference to claims 11, 12, and 13:

"The contact-carrying arm is described and claimed as being hinged and pivoted, by which is meant that the said arm is capable of universal movement upon its pivot. Ordinary forms of pivoted hinge connections between the contact-carrying arm and its support are herein shown and described, but it will be obvious that many different means of affecting a connection capable of the desired freedom of movement might be substituted for what I have shown and described, without in any way departing from the invention."

The improvement was both novel and useful. It permitted a prompt and easy reversal of the apparatus which connected the car with the conductor, which was an important matter, and it also permitted a wide or unrestricted lateral movement of the trailing arm. As said by Judge Townsend, upon that patent, in the Winchester Ave. Case, 71 Fed. 192:

"In the first patent in suit, No. 495,443, the spring which maintained the upward pressure of the underrunning wheel was so fastened to the car, or otherwise arranged, as to interfere with the lateral movements of the swinging arm. By the substitution of this rotatable support, and the attachment of said spring thereto, such movements are unrestricted, because the spring rotates with the support. Furthermore, it is unnecessary to turn the car about in order to run it in an opposite direction, because, the apparatus being reversible, the arm may be so adjusted as to trail rearwardly from the supporting post."

The question of widest importance in the case, viz. that of the patentability of the three infringed claims, has already been decided in this circuit, in the Winchester Ave. Case, by Judge Townsend, against the present complainant. In that case the patent now in suit and the patent No. 495,443 were both involved, but the complainant thinks that the attention of the parties and the court was especially directed to the more important and the earlier invention, that thus the patentable character of the later invention did not have its proper prominence, and that a more full record has now been presented. Waiving consideration of the fact that in this circuit these claims have already been submitted to judicial examination, I have endeavored to look at the subject as if it was a novel one, and was not controlled by former adjudication. Van Depoele had before December, 1885, an electric car furnished with his new underrunning trolley equipment; but city and suburban trolley roads cannot easily be furnished with turntables, and it was important, if not necessary, that the contact arm, rather than the car, should be reversed, and that the original underrunning system should be perfected in that direction. It was a matter of course that the arm should be hinged upon a rotating support, and it was soon seen that the spring must rotate with the support of the arm, or reversal would be awkwardly and slowly accomplished. The conception of the result, or of its useful character, is not patentable. The means by which the result is accomplished are patent-

able, if they are of an inventive character. The necessities of the new underrunning trolley system called for the improvement, but the idea of pivoting the contact arm to a rotating support, to which the spring is also attached, rather than to the car, must have been within the capacity of the ordinary mental equipment of the skilled mechanic. A railroad turntable, or a rotating office chair with a tension-spring attachment, did not probably tell the inventor how to make his rotating support. These are simply instances of the widespread character of pivoted and rotating supports; and when Van Depoele had advanced to the point in his improvement where he said, "I must advance another step, and make the contact arm freely rotate," the universality of mechanism of this sort made the mechanical task an easy one. It follows that the conclusions which Judge Townsend reached are confirmed, and that the bill should be dismissed, with costs.

WESTINGHOUSE AIR-BRAKE CO. v. NEW YORK AIR-BRAKE CO. et al.

(Circuit Court, S. D. New York. May 9, 1898.)

1. PATENTS—CONSTRUCTION OF CLAIMS—PRIOR ART.
The Dixon patent, No. 382,032, for improvements in air brakes, which describes in claims 3 and 5 a modification of the prior Westinghouse patents (Nos. 360,070 and 376,837), consisting in dispensing with the passage from the train pipe and brake cylinder, and locally venting the train pipe directly to the atmosphere; and, if these claims are not void for want of novelty, they are yet technical, rather than valuable, ones, and should not be extended by construction beyond their literal import.

2. SAME.
The Westinghouse patent, No. 538,001, for improvements in air brakes, construed, and *held* not infringed.

This was a suit in equity by the Westinghouse Air-Brake Company against the New York Air-Brake Company and others for alleged infringement of certain patents for improvements in air brakes.

George H. Christy and Fredk. H. Betts, for complainants.
Fredk. P. Fish and Charles Neave, for defendants.

WALLACE, Circuit Judge. The patents upon which this suit is founded are for improvements in air brakes, infringement being alleged of claims 3 and 5 of letters patent No. 382,032, granted May 1, 1888, to Theron S. E. Dixon, and of claims 5 and 6 of letters patent No. 538,001, granted April 23, 1895, to George Westinghouse, Jr.

The patent of Dixon, so far as it is found in the two claims in controversy, describes a modification of the automatic air brake of the prior patents to George Westinghouse, Jr., Nos. 360,070 and 376,837, which consists "in cutting off and dispensing with the passage from the train pipe and brake cylinder, and locally venting the train pipe directly to the atmosphere through a passage or port." Westinghouse vented his train pipe into the brake cylinder.

Whatever theoretical advantages may reside in the modification, the improvements have not been of sufficient practical value to displace the Westinghouse brake, and those which are the subject of the two claims are of no commercial value.

What was done by Dixon was to interrupt the passage in the West-