

WINDSOR,
ESSEX
AND
LAKE SHORE
RAPID RAILWAY
RAILWAY

1907-1924

C. H. RIFF

Oct., 1907]

THE RAILWAY AND MARINE WORLD

use the right-of-way in the city on terms fixed by the Railway Commission. (Sept., pg. 683)

Huron and Ontario Ry.—There has been deposited with the Secretary of State at Ottawa duplicate of a mortgage dated July 30, made between the H. and O.R. Co., and the Trusts and Guarantee Co., as mortgagees, whereby the company mortgaged its real and personal property, franchises and undertaking.

Lanark-Rideau.—E. T. Haines, of New York, who was interested in the Hamilton, Ancaster and Brantford Ry., finally selling out to the Brantford and Hamilton Ry., has been in Lanark, Ont., with a view of undertaking the construction of an electric railway there. The line which it is proposed to construct would extend from Lanark Village to Rideau Ferry. A. T. Judd, of Toronto, is interested in the promotion of the company. There is no charter at present in existence for the line.

The London Street Ry. Co. is being asked to arrange for extensions of its lines in the

Westmoreland Power Co. Application will be made next session of the New Brunswick Legislature for an act incorporating a company with this title, with all the powers usually granted to electric street railway, light, heat and power companies, with authority to construct such street railway in the city of Moncton, and such extensions into the counties of Westmoreland, Kent, and Albert as may be authorized; also to maintain and operate within the same territory an automobile service for the transportation of passengers and freight. Weldon and McLean, St. John, N.B., are solicitors for the applicants.

Windsor, Essex and Lake Shore Rapid Ry.—A regular service of cars has been inaugurated over the line from Windsor to Kingsville, passing through Essex, Ont. It was promoted by W. Newman, City Engineer of Windsor, and the late Dr. Brien, and later A. J. Nelles became associated with them. These did a large portion of the preliminary work of securing the franchises, etc., but it was not until May, 1905, that construction was entered into.

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Windsor

Amberley, along the Saugeen road to Kincardine, Ont. The company proposes to endeavor to raise the funds required for the construction of the line, in either Great Britain or the United States, by the sale of its bonds. The municipalities through which it is intended to run the line will be asked to guarantee the bonds.

The Ottawa Electric Ry. Co. has expressed its willingness to share the cost of constructing the proposed viaduct, provided it is not called upon to widen the Somerset St. bridge. It is possible that this street bridge may be abandoned entirely as far as street railway traffic is concerned.

St. John (N.B.) Ry.—The work of double tracking the line in various parts of the city is practically completed. An application for an injunction to restrain the company from carrying out a part of the work had been applied for, but permission had been obtained, and it was expected that the tracklaying would be completed before the application could be heard.

St. Leonh and Stratford Radial Ry.—N.

Toronto Ry.—A portion of the tracks on Yonge St., $\frac{3}{4}$ mile north of Scollard St., has been relaid with new 90-lb. rails, in 60 ft. lengths.

The relaying of the tracks between Kingston Road and Woodbine Ave. is proceeding, and in the meantime stub line cars are being utilized between the point of operation and Scarboro' Beach.

Pending the relaying of tracks on Dundas St., Toronto Junction, and the settlement of the dispute between the company and the council there, a stub line service is to be supplied from the Dundas St. car barns to the city limits as soon as possible.

Windsor and Tecumseh Ry.—The township of East Sandwich has applied to the Ontario Railway and Municipal Board for an order against the company to grade and extend Ottawa St., to supply better cars, and to sell 10 tickets for 25c. to school children whether they attend school in the country or in Detroit, Mich., as per contract. See also Sandwich, Windsor and Amherstburg Ry.

long at Limoilou Junction.

Sandwich, Windsor and Amherstburg Electric Ry.—The Ontario Railway and Municipal Board has approved of the lease of the Windsor and Tecumseh Electric Ry., for a term of 99 years at \$100 a year, to the S., W. and A.E. Ry.

Shawinigan Falls Terminal Ry.—This company owns and operates 6.25 miles of railway and does the local switching business

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The Amherstburg, Ont., Town Council complains that suitable freight sheds and passenger waiting-rooms are not provided; freight rates are excessive; passenger cars are unsuitable; single instead of double truck cars are being used; fares charged between Amherstburg and Windsor are too high, and the ballasting of the road is insufficient, and has made application to the Ontario Railway and Municipal Board to issue an order compelling the Sandwich, Windsor and Amherstburg Electric Ry. to make a specific performance of its contract with the municipality.

Grain Elevator Notes.

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Individual honesty, because rules and regulations designed, as the result of long experience, for the safety of life and property, are of very little value unless a large organization such as ours can rely upon the individual honesty of the men in whose hands a portion of responsibility is placed. We perfectly suggest that honesty and truthfulness can be cultivated throughout all branches of the service by means of a correct understanding between officers and men, which a man may rely when possibly he is in trouble or difficulty. Although to seek the truth in some cases may mean discipline, we believe that even in such cases anything less than the truth is a sacrifice of manhood which in nine cases out of ten is easily detected, and which yields no satisfaction on either side. As the system of surprise checking has been mentioned, we wish to say, that in our opinion, the man who is honest in his work has nothing whatever to fear from any system of check, and that if looked upon in the proper light the system will be seen to be intended to take care of the weaker men. In conclusion, we feel sure that this conference has contributed largely to a feeling of confidence on the part of the men and of good-will on the part of the officers, which will mean a wider acknowledgment of the advantages of being honest in all our dealings and of speaking the truth under all circumstances.—H. Brown, J. Chamberlain, L. Ward."

THE RAILWAY AND MARINE WORLD

ELECTRIC RAILWAYS.

Sandwich, Windsor and Amherstburg Ry.

The annual report of the Detroit United Ry. Co. for 1907 contains some particulars about its subsidiary, the Sandwich, Windsor and Amherstburg Ry. Co.; Mileage, Jan. 1, 1907, 25,260 miles, to which there was added during 1907 10,1831 miles; interest on funded and floating debt, \$18,000; revenue passengers, 2,604,054; transfer passengers, 282,870; employe passengers, 32,153; car mileage, 601,575; earnings, car mile, .2631; expenses car mile, .1748; net earnings car mile, .0883. Under the head of additions and betterments, there was spent during the year on the construction of the Windsor and Tecumseh extension, additions to power house and lighting plant, seven additions cars and construction of tracks on Elm St. loop, including paying and additional feed wire, \$92,644.06.

BALANCE SHEET S. W. & A. R. CO.

Capital stock.....	\$ 297,000 00	
Mortgage bonds.....	490,000 00	
Bills payable.....	70,000 00	
Accrued interest on bonds.....	1,500 00	
Accrued insurance.....	542 26	
Detroit United Railway.....	193,204 23	
Accident fund.....	733 28	
Current liabilities.....	4,237 61	
Unredeemed tickets.....	1,932 78	
Profit and loss.....	33,518 00	
Plant.....	\$ 904,428 64	
W. & T. E. Ry. Co. (Stock).....	10,000 00	
W. & T. E. Ry. Co.....	171,690 50	
Current assets.....	875 80	
Prepaid taxes.....	2,425 34	
Stores.....	1,623 14	
Cash.....	2,324 74	

Brought forward.....	\$14,323.01
Coal.....	2,634 88
Grand Trunk Ry. crossing.....	381 38
Painting and upholstering.....	281 14
Office.....	1,500 50
Stationery.....	165 47
Expense.....	137 13
Legal.....	56 46
Taxes.....	100 00
Insurance.....	191 19
Park.....	634 34
Band.....	437 25
Battery.....	76 94
Rink.....	282 81
Hotel.....	83 60
	\$21,286.07
Net gain on year's operations.....	7,017 94

Dominion Power and Transmission Co., Limited.

Following is the first annual report as abridged for circulation: "The directors have much pleasure in submitting their first annual report with reference to the business of the company from its organization to the end of 1907, and the financial statement accompanying same. Accompanying the latter is a combined statement of the receipts, expenditures, profit and loss and final balance of the various companies owned or controlled by this company. This combined statement affords a basis of comparison of the results of the year's operation with those shown in previous annual statements of the Hamilton Cataract Power, Light and Traction Co. The incorporation of this company was the result of necessary increase in the financial capacity of the Hamilton Cataract Power, Light and Traction Co., which has become inadequate to

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500,000 a mile of double-track, including stations, etc.

Windsor and Tecumseh Electric Ry.—

The hearing of the case against the company brought by the township of Sandwich East, involving the question of street grading there, took place at Windsor, Ont., Dec. 20.

Winnipeg Electric Street Ry. The

\$153,487.67.

Sandwich, Windsor and Amherstburg Ry.—
Following are the officers and directors for the current year: President, H. A. Everett, Cleveland, Ohio; Vice-President and Treasurer, J. C. Hutchins, Detroit, Mich.; Secretary, A. E. Peters, Detroit, Mich.; other directors, A. Pack, F. W. Brooks, Jos. Bampton, Detroit, Mich.; E. W. Moore, Cleveland, Ohio; R. B. Van Courtlandt, New York; Manager, Jas. Anderson.

The earnings and operating expenses of this line are included in the figures given in the report of the Detroit United Rys., by which the line is owned. Gross earnings, \$5,125,563.01; operating expenses, including taxes, \$3,041,522.90; net earnings, \$2,084,040.11; income from other sources, \$44,076.40; total income \$2,128,116.51 against

applicants. (April, pg. 217.)

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Winnipeg Electric Ry.—An order-in-coun-

Windsor, Essex and Lake Shore Rapid Ry.—The officers of the company for the current year are: President, W. L. Wilson, Port Huron, Mich.; Vice-President, T. E. Robinson, Detroit, Mich.; Second Vice-President, Dr. Jas. Brien, Essex, Ont.; Managing Director, P. Haseltine, Detroit; Secretary, J. W. Goodson, Detroit; Treasurer, W. C. Crawford, Tilbury, Ont. The other directors are: J. and W. T. Piggott, W. E. McKeough, W. R. Phillimore, M. Wilson, Chatham, Ont.; Hon. E. G. Stevenson, Detroit. We were recently advised that 30 miles of grading had been completed, and that four miles of track had been laid. Track-laying was being proceeded with at the rate of half a mile a day. It is expected to complete 40 miles of line and to have cars in operation by Aug. 1, between Windsor and Leamington. The track is being laid with 80-lb. steel, part of which was purchased from the Algoma Steel Co.; the electrical equipment is being supplied by the Canadian Westinghouse Co., and the cars are also being built in Canada. The power house is being built at Kingsville, Ont. The contractors are the Keystone Construction Co., of Philadelphia, Pa., E. A. Tennis, the President, being in charge of the work. (May, pg. 277).

Winnipeg Electric Ry.—Requests having

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The extension of the Mimico Division from Long Branch has been completed to Port Credit, Ont., and a car service has been placed in operation.

Windsor, Essex and Lake Shore Rapid Ry.—

Dr. Jas. Brien, ex-M.P. for Essex, is quoted as saying:—"The grading of the roadbed will be finished between Kingsville and Windsor, Ont., next week, and this will be followed by the laying of tracks at once. The water-power of Niagara Falls will be used when Detroit and Buffalo are connected. The distance is 229 miles. The route will be from Windsor to Essex, Kingsville, Leamington, Wheatley, Tilbury, Chatham, London, and thence to Buffalo. Detroit capital is largely interested in the company." A mortgage to the National Trust Co. of the property and franchises of the company, to secure an issue of bonds for a sum not exceeding \$20,000 a mile of the company's projected line, has been filed with the Provincial Secretary, Toronto. (Nov., pg. 543.)

— — — — — Meetings, Etc.

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Windsor, Essex and Lake Shore Rapid Ry.

A meeting was called to be held Oct. 19, for
the purpose of sanctioning a contract entered
into by the directors for the construction and
equipment of the line to authorize the issue
of bonds to the extent of \$20,000 a mile for
the construction of the line and to sanction
a mortgage of all the company's property,
both real and personal, rights and franchises,
to secure the bonds. The notice calling the
meeting was signed by J. W. Goodison, Secre-
tary, Windsor, Ont.

... .. A proposition has

November 1905

JAN., 1906]

THE RAILWAY AND MARINE WORLD

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rence market. The company would take a lease for 16 years, the balance of the term of franchise of the Toronto Ry., the city to have the option of taking the line over at that date, or on Sept. 1 of any year thereafter. The company offers to pay mileage and percentage on the same basis as the Toronto Ry. The matter is under discussion with representatives of the company.

Port Maitland to Beamsville, Ont.—Application will be made next session of the Ontario Legislature for an act incorporating a company to construct an electric railway from Port Maitland through the townships of Dunn, Moulton, Camboro, Winifleet, Gainsborough and Clinton, and the town of Beamsville to Beamsville, Ont., with a branch line through the townships of Gainsborough, Clinton and Pelham to Fenwick, with incidental powers. J. C. Eccles, Dunnville, Ont., is solicitor for the promoters.

Quebec and Saguenay River Ry. An en-

bridge across the Western gap, for the purpose of giving a street car connection with the Island. In the event of the Dominion Government vetoing a swing bridge, he recommends a double aerial bridge, similar to that at Duluth, Minn. The cost would be from \$200,000 to \$225,000.

Toronto Suburban Ry.—It is reported that surveys will be made from the present terminus at Lambton, along Dundas St., to Brampton, Ont. Local reports, however, state that a survey will be made for a line to run north of Dundas St. to Brampton, about midway between the C. P. R. and the G. T. R. lines, and starting either from near the present terminus at Lambton, or the more northerly terminal at Weston. This suggested line would serve directly a number of points which are now at some considerable distance from the railways.

Toronto Ry. The City Council and the company are not agreed as to the lines to be extended in the city, the main point of dispute being as to the area within which the City

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January 1906

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Winnipeg Electric Ry.—An order-in-coun-

May 1906

Petrolia Rapid Ry.—The Ontario Legislature is being asked at its current session for an act extending the time within which the projected railway may be constructed. The secretary of the company is T. J. Gordon.

Port Arthur Electric Ry.—The Town Council of Port Arthur, Ont., is applying at the current session of the Ontario Legislature for an act authorizing an extension of its electric street railway. (Feb., pg. 89.)

Port Credit, Brampton and Guelph Ry.—R. J. Copeland, Toronto; J. H. Boulter, B. F. Justin, J. R. Fallis, J. Clarke, Brampton, Ont.; J. Sykes, Esquesing tp., Ont.; G. E. Ellis, Winnipeg, Man., are the provisional directors named in the act, before the Ontario Legislature, proposing to incorporate a company with this title to construct a railway from Port Credit, via Brampton, Huttonville, Georgetown, Acton, Norval and Glen Williams, to Guelph, Ont. While the company asks power to operate its line by electricity or other motive power, it proposes to utilize motor cars. The head office is to be at Brampton, Ont., the capital is fixed at \$100,000, and the bonding power has been fixed at \$25,000 a mile. (Feb., pg. 89.)

Sandwich, Windsor and Amherstburg Ry.—Application is being made at the current session of the Ontario Legislature by the S., W. and A. Ry. Co. as assignees of the South Essex Electric Ry. Co., for an act extending the time within which the authorized lines of that company may be constructed. The South Essex Electric Ry. Co. was incorporated in 1896, and amending acts giving additional powers were passed in 1897 and 1901. It is authorized to construct an electric railway along the southern shore of Essex county to Leamington, and from thence to Pelee Point.

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May 1906

MAY, 1906]

THE RAILWAY AND MARINE WORK

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extension the division will be 55 miles long, and it is expected that cars will be run between Toronto and Jackson's Point in two hours. (Feb., pg. 89.)

Trans-Niagara Bridge Co.—Application is being made at the current session of the Dominion Parliament for an act incorporating a company to construct and maintain a railway and general traffic bridge across the Niagara River at Niagara Falls, Ont., together with spur lines to connect the bridge with adjacent lines of railway. It is proposed to unite with a similar company formed in the U.S. to construct the bridge. Royce and Henderson, Toronto, are solicitors for the applicants. (April, pg. 217.)

Windsor, Essex and Lake Shore Rapid Ry.—We are advised the following are the directors: Dr. Jas. Brien, Essex, Ont.; W. T. Piggott, Chatham, Ont.; W. C. Crawford, Tilbury, Ont.; W. L. Wilson, Port Huron, Mich.; T. L. Robinson, Detroit, Mich. Two other directors, of whose names we have not been advised, were elected subsequently. The line, which is under construction, will run between Windsor and Chatham, taking a generally southeasterly course from Windsor, passing through Essex to Kingsville, on the shore of Lake Erie, thence northeasterly to Chatham, about 90 miles. The grading is reported completed between Windsor and Kingsville, and tracklaying is in progress. The country through which the line will run is extremely level, with few engineering features of any importance. The power house is to be located at Kingsville. Orders have been placed for rolling stock, etc., for the line. (April, pg. 217, and Mar. pg. 153.)

Winnipeg Electric Ry.—An order-in-council has been passed granting to the W.E. Ry.

MAY 1906

e \$100,000.00.

7. Sandwich, Windsor and Amherstburg Ry.—
d Following are the officers and directors for
the current year: President, H. A. Everett,
Cleveland, Ohio; Vice-President and Treas-
1- urer, J. C. Hutchins, Detroit, Mich.; Secre-
2- tary, A. E. Peters, Detroit, Mich.; other
3- directors, A. Pack, F. W. Brooks, Jos.
4- Bampton, Detroit, Mich.; E. W. Moore,
5- Cleveland, Ohio; R. B. Van Courtlandt,
6- New York; Manager, Jas. Anderson.

7- The earnings and operating expenses of
8- this line are included in the figures given in
9- the report of the Detroit United Rys., by
10- which the line is owned. Gross earnings,
11- \$5,125,563.01; operating expenses, including
12- taxes, \$3,041,522.90; net earnings, \$2,084,-
13- 040.11; income from other sources, \$44,-
14- 076.40; total income \$2,128,116.51 against

MAY 1906

MAY, 1906]

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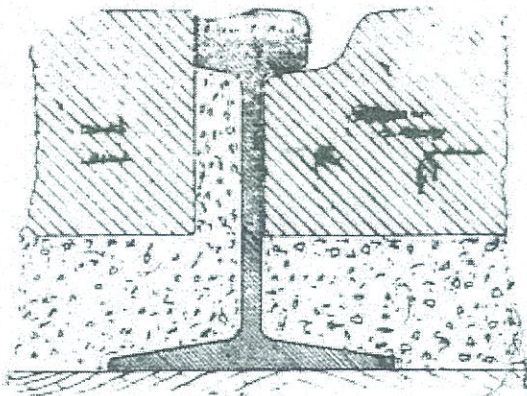
\$1,821,490.39. The interest on the funded and floating debt of the different lines was \$1,113,293.25, of which \$17,871.25 was in respect of the S., W. and A. Ry., which now has a mileage of 25.184 against 25.073 miles in 1904. During the year the line carried 1,961,876 revenue passengers, 148,926 transfer passengers, and 26,361 employees, a total of 2,092,163; the receipts per revenue passenger being .0547, and per passenger .0501c. Its cars ran 529,778 miles; the earnings per car mile being .2030c.; the expenses per car mile being .1107c., and the net earnings per car mile .0923c. During the year there was expended \$25,097.43 on new paving in Windsor, the installation of machinery in the lighting plant, and building 686 ft. of track in Amherstburg. The balance sheet of the line given the following figures:

Capital stock	\$297,000.00
Mortgage bonds.....	400,000.00
Accident fund.....	1,080.43
Detroit United Ry.....	134,936.97
Accrued interest.....	1,500.00
Accrued insurance.....	388.79
Unredeemed tickets.....	876.82
Surplus.....	33,518.00
Investment.....	\$853,394.51
Accounts receivable.....	298.40
Prepaid taxes.....	2,431.87
Stores.....	4,569.63
Cash.....	8,606.58
	<u>\$869,301.01</u>
	<u>\$869,301.01</u>

MAY 1906

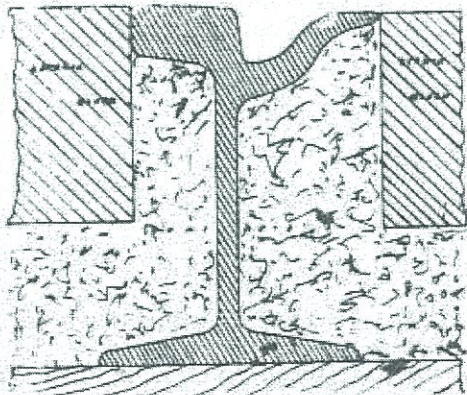
The receipts for

judgment on them. These rails possess no advantage in cost or other features primarily, but in the long run they cut down the expense of repair and track maintenance. They present no disadvantages to traffic that the girder rails do not possess, and from a company standpoint, and that of the passengers, they are a distinct advantage. We intend to use continuous joints in these rails, not welded, as the girders must be. This means the taking out of the ugly shearing in the asphalt or pavement necessary to provide for this weld. The T rail makes a steadier, stronger, more stable and easier kept in repair roadbed. The bearing surface on which the wheel runs



SECTION OF T RAIL

is exactly in the centre of the rail, while, with the girder, heavy trucks running on the lip of the groove cant it to the right, while the car wheel cants the head of the rail in the other direction, giving a continuous racking effect that not only damages the rail, but tends to tear up the roadbed and produce an uneven and dangerous running path for the street cars. Besides loosening the rails, the connections or bonds become loosened, and with the girder rails they have to be taken up and repaired immediately. The continuous joint used with the T rails will hold even when a spread occurs, so that the repair may be



GROOVED GIRDER RAIL

Projects, Construction and Betterments.

Hamilton Radial Electric Ry.—A regular car service was inaugurated on the extension from Burlington to Oakville, Ont., May 3. Oakville will be the eastern terminus of the line. The Toronto and York Radial Ry. has a line under construction from Port Credit to Oakville, which will effect a junction with the H.R.E. Ry. (Mar., pg. 153).

Montreal Street Ry.—A number of small extensions are being discussed with the City Council, and it is understood that the company is considering plans for the construction of a belt line encircling the entire island, a considerable portion of which would be done under the charter of the Montreal Park and Island Ry., which is owned by the M.S. Ry. The Dominion Parliament is being asked at the current session to extend the time for the completion of the M.P. and I. Ry. lines until 1911. (May, pg. 275).

Niagara, St. Catharines and Toronto Ry.—The extension under construction to Welland, Ont., will be about 12 miles in length. It will cross the canal by a swing bridge near the guard lock at Thorold. The extension is expected to be completed early in August. (May, pg. 275).

Windsor, Chatham and London Ry.—Notice has been served on the London, Ont., City Council, that application is being made to the various municipalities between Windsor and London, for a charter, and that an entrance is desired into the city.

Windsor, Essex and Lake Shore Rapid Ry.—The officers of the company for the current year are: President, W. L. Wilson, Port Huron, Mich.; Vice-President, T. E. Robinson, Detroit, Mich.; Second Vice-President, Dr. Jas. Brien, Essex, Ont.; Managing Director, P. Haseltine, Detroit; Secretary, J. W. Goodson, Detroit; Treasurer, W. C. Crawford, Tilbury, Ont. The other directors are: J. and W. T. Piggott, W. E. McKeough, W. R. Phillimore, M. Wilson, Chatham, Ont.; Hon. E. G. Stevenson, Detroit. We were recently advised that 30 miles of grading had been completed, and that four miles of track had been laid. Track-laying was being proceeded with at the rate of half a mile a day. It is expected to complete 40 miles of line and to have cars in operation by Aug. 1, between Windsor and Leamington. The track is being laid with 80-lb. steel, part of which was purchased from the Algoma Steel Co., the electrical equipment is being supplied by the Canadian Westinghouse Co., and the cars are also being built in Canada. The power house is being built at Kingsville, Ont. The contractors are the Keystone Construction Co., of Philadelphia, Pa., E. A. Tennis, the President, being in charge of the work. (May, pg. 277).

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Windsor, Essex and Lake Shore Rapid Ry.

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JUNE 1906

JULY, 1906]

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Windsor, Essex and Lake Shore Rapid Ry.—
A settlement was reached with the City Council for the entrance of the company's line into Windsor, Ont., June 4, and construction work on this portion of the line is being pushed. The company is equipping the line with the single phase alternating current system, and the plant is being supplied by the Canadian Westinghouse Co. (June, pg. 345).

Winnipeg, Selkirk and Lake Winnipeg Ry.—

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June 1906

The question of the appointment of an operating manager for the Windsor, Essex and Lake Shore Rapid Ry. has not been definitely decided, but it is not unlikely that P. Heseltine, of Detroit, Mich., who has been Managing Director since the formation of the company, will continue to have charge of its affairs.

R. J. McQuarrie has been appointed Local

July 1906

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both are provisional officers of the
Ry. Co. (April, pg. 217).

Windsor, Essex and Lake Shore Rapid Ry.

—We were advised, Aug. 18, that the contractors were pushing the completion of this line from Windsor to Kingsville, Ont., as fast as possible. The present organization of the company is as follows: President, J. Piggott, Chatham, Ont.; First Vice-President, W. L. Wilson, Port Huron, Mich.; Second Vice-President, Dr. Jas. Brien, Essex, Ont.; Secretary, W. T. Piggott, Chatham; Treasurer, W. C. Crawford, Tilbury, Ont.; other directors: M. Wilson, K.C., Chatham; Hon. E. G. Stephenson and Dr. P. Heseltine, Detroit, Mich. The Executive Committee consists of the President, Secretary, Treasurer and M. Wilson, K.C. The company has appointed as General Manager, W. N. Warburton, heretofore Manager of the Chatham, Wallaceburg and Lake Erie Ry., and formerly connected with the Niagara, St. Catharines and Toronto Ry. (Aug., pg. 479.)

The **Winnipeg Electric Street Ry. Co.** is constructing a second track along Sherbrooke

September 1906

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Windsor and Tecumseh Electric Ry.—It has been announced that the charter for the construction of this electric railway has been acquired by the Detroit United Ry., which already owns the Windsor City Electric Ry., and the Sandwich, Windsor and Amherstburg Electric Ry. Construction work is being pushed and it is expected that the line will be completed by Dec. 31.

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Winnipeg.—It is proposed to establish a new town opposite Headingly, Man., to be connected with Winnipeg by a bridge over the river, and an electric railway.

December 1906

Projects, Construction and Betterments.

Brantford and Hamilton Electric Ry.—A contract has been let to F. H. Dickenson, Hamilton, for laying the track on the entire line. Several hundred tons of rails have already been delivered at Hamilton, and tracklaying is expected to be started at an early date. (Nov., pg. 675.)

British Columbia Electric Ry.—A contract has been let for the erection of additional car barns at Vancouver. The several municipalities through which the projected line from New Westminster to Chilliwack will run have passed the by-law granting the necessary franchises. The question of the construction of the line will now be considered by the directors in London, Eng. (Nov., pg. 675.) See also Westminster and Chilliwack Ry., Nov., pg. 675.

Calgary, Alta.—An agitation is going on favoring the construction of an electric railway in the city. It is urged that the city council should undertake the work, but if it will not do so, to grant a franchise to a company which is prepared to start construction at an early date.

Edmonton, Alta.—The City Engineer has submitted an estimate for the construction of three miles of single track, and 4.5 miles of double track in the city. The construction and equipment of this mileage he puts at \$100,700, and the cost of operation he estimates at \$90 a day. The report is being considered by the council, which passed a resolution Oct. 25 declining to grant a franchise to a private company to construct a line. (Nov., pg. 675.)

The Halifax Electric Tramway Co. is building a car barn on Lower Water St., Halifax, N.S. The new building, 100 by 135 ft., is of brick with concrete floor, and folding steel doors, and is expected to be ready for occupancy by Dec. 31.

Hamilton Radial Ry.—A Hamilton city alderman stated Nov. 7 that it was the intention of the company to proceed with the extension of its line from Oakville to Toronto. (June, pg. 345.)

Hamilton Terminal Station.—A contract has been let by the Hamilton Cataract Power, Light and Traction Co., for the erection of a building on the south-east corner of King and Catharine streets, Hamilton, Ont., for a terminal station for electrical railways. The station proper will be 112 ft. on King St., by 72 ft. deep on Catharine St. The building will be placed 12 ft. east of Catharine St., and on this 12 ft. strip will be erected a covered shelter leading from King St. back to a large theatre which is to be built at the rear end of the lot at some future time. This shelter also serves as an exit for passengers from the trains. The office building will be four stories high, with a basement, and will be erected of Indiana limestone for the first two stories, while buff terra cotta fire clay brick will be used for the upper stories, finished off with terra cotta balusters. The building will be thoroughly fireproof, and will be built of reinforced concrete for columns, beams and floors. The ground floor will be laid out for station purposes, the ceiling being 20 ft. in height, and the floor covered with mosaic and the walls lined up 8 ft. high with Italian marble. The accommodation includes a main lobby in the centre, entered from the street through large double doors. To the right is a marble staircase to the upper floors and the elevator. The main lobby leads to the ticket wickets, behind which is the vault, etc. On the right is the ladies' waiting-room, and on the left the general waiting-room. In the rear of the general waiting-room is the conductors' room. The second

floor will be occupied as offices by the Hamilton Cataract Power, Light and Traction Co., and the third and fourth floors are to be divided into offices. The company's stores department will be located in the basement, where also will be the large transformers. The building and the theatre, when erected, will be heated by steam from three 76 h.p. boilers located under the tracks. The shelter referred to will be covered with incandescent electric lights, about 1,000 in number, for illumination purposes, and there will also be an installation of electric lights along the front of the building for decorative purposes. There will be a clock on the top of the building. The Hamilton Radial Ry., the Hamilton and Dundas Electric Ry., the Brantford and Hamilton Ry., the Hamilton, Grimsby and Beamsville Electric Ry., and the Hamilton, Guelph and Waterloo Ry., will have their terminals in the building. The architect is C. Mills, Hamilton, and the contractors are the Canadian White Co., Montreal. The contract calls for the completion of the building ready for occupancy by Aug. 1, 1907. (Sept., pg. 549.)

Hamilton, Waterloo and Guelph Ry.—The plans of the route of this line were approved by the Minister of Railways Nov. 1. All the crossings are to be overhead or subways. The Hamilton City Council is not quite satisfied with the plans so far as they affect the city, and will appeal to the Board of Railway Commissioners. The route will pass through the Sheffield and Rockton districts, and will enter Galt by way of Moffat's Creek. South of Galt it is intended to connect with the Galt, Preston and Hespeler Ry. (Sept., pg. 549.)

Huron and Ontario Ry.—Survey parties have been working recently in the vicinity of Heathcote, Ingleswood and Flesherton, Ont. R. S. D. Hartick, Chief Engineer of the company, has charge of the work. (Aug., pg. 477.)

London Street Ry.—A copy of the report of the engineers employed by the Ontario Railway and Municipal Board to inspect the railway, has been sent to the company. The Manager states that the report makes no orders for repairs which the company has not already begun, or provided the material for making. Guard rails will be laid at the approaches to the Wellington st. bridge at once, and at the other bridges as speedily as possible. A great deal of the track has been raised and repaired, some of the overhead work has been done, and a lot of other work has been done. (Nov., pg. 675.)

Manitoba Radial Ry.—Application is being made at the current session of the Dominion Parliament for an act incorporating a company with this title to construct railways of standard or other gauge, to be operated by steam, electricity or other power, from, at, in or near Winnipeg westward and northerly to Lake Manitoba, with power to construct branch lines, to operate steamboats on the lake and to conduct hotels, amusement parks, etc. A. Wagner, Winnipeg, is solicitor for the applicants.

Medicine Hat, Alta.—A proposition has been submitted to the city council by eastern capitalists for the construction of an electric railway in the city.

Montreal and Southern Counties Ry.—Nothing has yet been done in the way of construction, as the company's negotiations with the city of Montreal are still pending.

Montreal Street Ry.—The taking over of the lines of the Montreal Terminal Ry. by the M.S. Ry. has necessitated some rearrangement of the routes. New special track work at the more important of the street intersections is being laid. Con-

crete roadbeds have been laid, and the whole work is of the highest class. (Nov., pg. 675.)

Niagara, St. Catharines and Toronto Ry.—The grading on the extension from Thorold to Fonthill, Ont., has been completed and it is expected that the tracklaying, ballasting and wiring will be completed by the end of the year. It is proposed to extend this line to Welland in the spring. The work of improving the line in the vicinity of St. Catharines, strengthening the bridges, filling in trestles, and replacing the tracks with 80-lb. steel is being rapidly completed. (June, pg. 345.)

North Midland Ry.—A by-law for the loan of \$40,000 to the company by the St. Mary's, Ont., town council, is to be submitted to a vote of the taxpayers. The company has acquired a site for a power house at St. Mary's, and will go ahead with the construction of the line as soon as the by-law is agreed to. (See Western Central Rd., Sept., pg. 549.)

Quebec and Saguenay Ry.—R. Forget, M.P., who is at the head of the proposal to construct this line, took a party of Quebec and Montreal men over a portion of the proposed route recently. The line will start from St. Joachim, the terminus of the Montmorency division of the Quebec Ry., Light and Power Co.'s line, and run along the foot of the cliff above high water mark. The only point at which the construction will be heavy will be where Cape Tourment runs out to the river, but the length of this rock cutting is not very great. All the rest of the way the construction will be comparatively light. There is plenty of rock all along the route for ballasting purposes. The survey is practically completed, and it is said that an early start will be made with construction. A contract is reported let to Cameron, Quebec, for the construction of the line. (Nov., pg. 675.)

South-Western Traction Co.—The work making a connection between the company's tracks and those of the St. Thomas City Council's line has been completed, and the cars are now being operated from London into St. Thomas. The contract with Port Stanley calls for the completion of the line from St. Thomas to that point Jan. 1, 1907. (Nov., pg. 675.)

Vancouver to Seattle.—Press reports from Vancouver and New Westminster, B.C., state that Great Northern Ry., U.S., engineers are surveying a route for an electric railway from Vancouver, through New Westminster, B.C., to Seattle, Wash. It is also reported that the power rights of Stave Lake have been purchased by G.N. Ry. interests.

Windsor and Tecumseh Electric Ry.—It has been announced that the charter for the construction of this electric railway has been acquired by the Detroit United Ry., which already owns the Windsor City Electric Ry., and the Sandwich, Windsor and Amherstburg Electric Ry. Construction work is being pushed and it is expected that the line will be completed by Dec. 31.

Winnipeg.—It is proposed to establish a new town opposite Headingly, Man., to be connected with Winnipeg by a bridge over the river, and an electric railway.

The Pennsylvania-Ontario Transportation Co., which is incorporated under the laws of the State of Ohio, for the purpose of carrying on a general navigation business, has been licensed to do business in Ontario, under the laws respecting the licensing of foreign corporations. The capital to be employed in Ontario is not to exceed \$40,000, and W. M. Fincke, of Ingersoll, Ont., is the company's attorney.

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ing a branch from Delaware to Lambeth,
Ont., 6.75 miles (Dec., 1906, pg. 753.)

Windsor and Tecumseh Electric Ry.—The
Detroit United Ry., which owns the W
and T.E. Ry., as well as the Sandwich,
Windsor and Amherstburg Ry., is con-
structing eight miles of line from Walker-
ville to Tecumseh, Ont. (Dec., 1906, pg.
753.)

Windsor, Essex and Lake Shore Rapid Ry.
—An order has been issued by the Board of
Railway Commissioners authorizing this
electric railway to carry its line across the
Michigan Central Rd. at Talbot St., Essex,
Ont., at rail level, instead of by a subway
as formerly ordered. The regular safety
devices are ordered to be maintained, and
the cost of providing a watchman, day and
night, is to be divided equally between the
two companies. Track has been laid between
Windsor and Kingsville, Ont., except about a
mile, and the rails and ties are on the ground
for an extension from Kingsville to Leam-
ington. (Sept., 1906, pg. 549.)

January 1907

314.35, against \$220,803.78 for Nov., 1905

Windsor, Essex and Lake Shore Rapid Ry
—The U.S. interests in the line have been acquired by the existing Canadian interests, and the line will be financed in future as a Canadian enterprise. The Canadian directors who have taken this action are: W. E. McKeough, W. R. Phillimore, J. and W. Piggott, Chatham, Ont.; and W. C. Crawford, Tilbury, Ont. Jno. Piggott remains as President of the reorganized company; Jas. Brien, Essex, succeeds W. L. Wilson of Port Huron, Mich., as First Vice-President, and W. E. McKeough becomes Second Vice-President, in succession to Jas. Brien.

Electric Railway Notes.

February 1907

(JOUR. PS. 77)

Sandwich, Windsor and Amherstburg Ry.
—Application will be made at the current session of the Ontario Legislature for an act authorizing the S.W. and A. Ry. and the Windsor and Tecumseh Electric Ry. to agree with one another for connections, or to make running arrangements, or enter into an agreement for the sale or lease of any portion of the last named railway; to authorize the S.W. and A. Ry. Co. to acquire the capital stock, bonds or other securities of the W. and T.E. Ry. Co.; to empower the S.W. and A. Ry. to supply power to the W. and T.E. Ry.; to extend the time for the completion of the W. and T.E. Ry.; to confirm and validate the proceedings of the provisional directors of the W. and T.E. Ry.; to confirm a mortgage of the W. and T.E. Ry. to the International Trust Co. of Boston, Mass., and to change the head office of the W. and T.E. Ry. from Walkerville to Windsor, Ont. (May, 1906, pg. 27, Windsor and Tecumseh Electrical Ry., Dec., 1906, pg. 753.)

Windsor and St. Joseph Radial Ry.—The

February 1907

FEB., 1907]

THE RAILWAY AND MARINE WORLD

Thames Valley and Ingersol Ry., owned by the same interests. The company had under consideration the extension of the line to Burford, Simcoe and Port Dover, Ont. (Sept., 1906, pg. 549).

Halifax and Suburban Electric Co.—A company has been organized in Halifax, N.S., with this title for the purpose of constructing an electric railway from Halifax through Rockingham, Bedford and Sackville to Waverley, N.S. The company, it is stated, has secured the charter of the Bedford Electric Co., which was incorporated by the Nova Scotia Legislature in 1903, with power to construct an electric railway within the territory named. The promoter is H. E. Harding, of St. John, N.B., who is said to have interested U.S. capital in the project, and the Halifax directors of the company are G. E. Boak, ex-Mayor Kéefe, and W. Chisholm.

Hamilton Radial Electric Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing it to extend its lines to Toronto, and to obtain terminal facilities there; to extend its line from Hamilton to Brantford, Woodstock and Windsor, Ont.; to make running or traffic agreements with the Hamilton, Ancaster and Brantford Ry., the Hamilton, Grimsby and Beamsville Ry., and other electric railways; and to construct electric railways generally in the county of Wentworth. It is also desired to have the company's undertaking declared to be one for the general advantage of Canada, and to have its bonding powers increased from \$20,000 to \$30,000 a mile. (Dec., 1906, pg. 753).

Manitoba Radial Ry.—In addition to the powers asked for in the original application for an act of incorporation now before the Railway Committee of the House of Commons, it is proposed to ask for power to extend the projected line from Lundar to the shore of Lake Winnipeg at or near the Hudson's Bay Co.'s post in the district of
(Dec., 1906, pg. 753)

Port Arthur Electric Street Ry.—The Port Arthur corporation will apply at the current session of the Ontario Legislature for an act confirming a number of by-laws, and conferring on it various powers, including the following: To double-track the electric street railway, and to construct a belt line railway as an extension of the same, upon the passing of the necessary by-law or by-laws by the taxpayers, and to authorize the operation of the electric street railway on Sundays. (May, 1906, pg. 277.)

Quebec and Isle of Orleans Ry.—The members of the company which is applying at the current session of the Quebec Legislature for an act incorporating a company with this title to construct a railway from Quebec, round the Isle of Orleans, with a bridge to the Beaufort shore, are Hon. E. B. Garneau, P. Corriveau, F. Turcot, E. Laliberte, D. O. Lesperence, of Quebec. (Jan., pg. 5.)

Sandwich, Windsor and Amherstburg Ry.—Application will be made at the current session of the Ontario Legislature for an act authorizing the S.W. and A. Ry. and the Windsor and Tecumseh Electric Ry. to agree with one another for connections, or to make running arrangements, or enter into an agreement for the sale or lease of any portion of the last named railway; to authorize the S.W. and A. Ry. Co. to acquire the capital stock, bonds or other securities of the W. and T.E. Ry. Co.; to empower the S.W. and A. Ry. to supply power to the W. and T.E. Ry.; to extend the time for the completion of the W. and T.E. Ry.; to confirm and validate the proceedings of the provisional directors of the W. and T.E. Ry.; to confirm a mortgage of the W. and T.E. Ry. to the International Trust Co. of Boston, Mass., and to change the head office of the W. and T.E. Ry. from Walkerville to Windsor, Ont. (May, 1906, pg. 27, Windsor and Tecumseh Electrical Ry., Dec., 1906, pg. 753.)

Stanford and St. Joseph Radial Ry.—The

February 1907

Windsor and Tecumseh Electric Ry. Weston.

Windsor and Tecumseh Electric Ry. The taxpayers of Walkerville, Ont., by a vote of 113 to 60, have extended for a year the time within which the projected line is to be constructed. The line is being constructed by the Sandwich, Windsor and Amherstburg Ry. Co., which recently acquired the charter. (Feb., pg. 113.)

Windsor and Tecumseh Ry.—It is expected to have 10 miles of track completed by July 1.

April 1907

\$30.52, against \$210,531.55 for Mar., 1906.

The Sandwich, Windsor and Amherstburg Ry. Co.'s annual meeting was held at Windsor, Ont., Mar. 20. Following are the officers and directors for the current year: President, J. C. Hutchins, Detroit, Mich.; Vice-President, F. W. Brooks, Detroit; Secretary, A. E. Peters, Detroit; Treasurer, J. Bampton, Detroit; other directors, H. A. Everett, E. W. Moore, Cleveland, Ohio; A. Pack, Pontiac,

April 1907

my Mich.; H. B. Van Courtland, New York;
an- General Manager, J. Anderson, Windsor.
ng, This company is a part of the Detroit United
the Ry. System.

res **The Windsor and Tecumseh Ry. Co.'s**
me annual meeting was held at Windsor, Ont.,
ed. Mar. 20. Following are the officers and
ng directors for the current year: President, F
ne W. Brooks. Vice-President and Manager,
ole J. Anderson. Secretary, A. E. Peters. Treas-
ly- urer, J. Bampton; other directors, J. C.
a Hutchins. All are residents of Detroit, Mich.,
30 except J. Anderson, who is at Windsor. The
ed company is a portion of the Detroit United
to Ry. System.

MAY 1907

section with the second and third of the
proposed extensions. (Sept., pg. 488.)
Sandwich, Windsor and Amherstburg Ry.
-The Walkerville, Ont. town council has
granted the company permission to lay a
second track on Wyandotte st., from Kil-
dare road, to the western limits of the town.
(July, 1911, pg. 685.)

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Toronto Ry.—Car earnings for April, 1907, 608.68, against \$231,034.28 for April, 1906.

Sandwich, Windsor and Amherstburg Ry.

The annual report of the Detroit United Ry. Co., which owns the S. W. and A. Ry., for the year ended Dec. 31, 1906, contains the following particulars with reference to the latter line: The mileage on Jan. 1, 1906, was 25,184 miles, to which there had been added 0.076 miles. Passenger statistics—revenue passengers, 2,201,000; transfers, 165,720; employees, 39,872; total, 2,470,591. Receipts per revenue passenger, 0.536; receipts per passenger, .0492. Mileage statistics—car mileage, 534,490; earnings per car mile, .2328; expenses per car mile, .1207; net earnings, .1121. The earnings and expenses of the different companies are not given, the totals only are published for the whole system as follows:

	1906
Gross earnings	\$6,063,182.54
Operating expenses, including taxes	3,718,621.54
Net earnings from operation	\$2,344,561.00
Income from other sources	58,757.73
Gross income less operating expenses	\$2,403,318.73
DEDUCTIOES:	
Interest on funded and floating debt:	
Detroit United Ry.	\$ 988,806.77
Rapid Ry.	135,050.00
Sandwich, Windsor & Amherstburg Ry.	18,000.00
Detroit, Monroe & Toledo Short Line Ry.	101,416.66
	\$1,243,273.38
Dividends, Detroit United Ry.	625,000.00
Charged off for depreciation	250,000.00
Total deductions	\$2,118,273.38
Surplus income	\$ 285,045.35

There has been a special expenditure on the line of \$130,080.57, for additions to the lighting plant in Windsor, Ont., the pavement and standardizing of tracks; the provision of additional feed wires; the purchase of four new open cars, and for part construction of the Windsor and Tecumseh extension. The general balance sheet of the S. W. and A. Ry. follows:

Capital stock	\$ 297,000.00
Mortgage bonds	400,000.00
Bills payable	70,000.00
Accrued interest on bonds	1,300.00
Accrued insurance	306.69
Detroit United Ry.	198,529.05
Accident fund	581.37
Unredeemed tickets	1,220.28
Surplus	33,518.00
Investment	\$ 873,472.44
Current assets	118,600.56
Prepaid taxes	2,408.06
Stores &c.	2,662.36
Cash	3,511.97
	\$1,002,715.39
	\$1,002,715.39

JUNE 1907

Toronto Ry.—Car earnings for April, 1907, 608.68, against \$231,034.28 for April, 1906.

Sandwich, Windsor and Amherstburg Ry.

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	1906
Gross earnings	\$6,653,182.54
Operating expenses, including taxes	3,718,621.54
Net earnings from operation	\$2,934,561.00
Income from other sources	58,757.73
Gross income less operating expenses	\$2,993,318.73
Deductions:	
Interest on funded and floating debt:	
Detroit United Ry.	\$ 958,806.77
Rapid Ry.	135,050.00
Sandwich, Windsor & Amherstburg Ry.	18,000.00
Detroit, Monroe & Toledo Short Line Ry.	131,416.66
	\$1,243,273.43
Dividends, Detroit United Ry.	625,000.00
Charged off for depreciation	250,000.00
Total deductions	\$2,118,273.43
Surplus available	\$ 885,045.30

There has been a special expenditure on the line of \$130,080.57, for additions to the lighting plant in Windsor, Ont., the pavement and standardizing of tracks; the provision of additional feed wires; the purchase of four new open cars, and for part construction of the Windsor and Tecumseh extension. The general balance sheet of the S. W. and A. Ry. follows:

Capital stock	\$ 297,000.00
Mortgage bonds	300,000.00
Bills payable	70,000.00
Accrued interest on bonds	1,500.00
Accrued insurance	366.69
Detroit United Ry.	196,329.85
Accident fund	581.57
Unredeemed tickets	1,720.28
Surplus	11,513.00
Investment	\$ 853,472.44
Current assets	118,660.50
Prepaid taxes	2,408.06
Stores, etc.	2,662.56
Cash	3,511.97
	\$1,002,715.39
	\$1,002,715.39

July
1907

Toronto and York Radial Ry.—The Ontario Railway and Municipal Board's engineer having inspected the extension from Newmarket to Jackson's Point, Ont., a regular service was put in operation June 1. (June, pg. 129.)

Windsor and Tecumseh Electric Ry.—This electric railway, which is owned by the Sandwich, Windsor and Amherstburg Ry., has been completed, and application was made June 11 to the Ontario Railway and Municipal Board for an order permitting the line to be operated. (April, pg. 273.)

Winnipeg Electric Street Ry.—A letter to the Winnipeg Board of Control June 1,

August 1907

Toronto and York Radial Ry.—The Ontario Railway and Municipal Board's engineer having inspected the extension from Newmarket to Jackson's Point, Ont., a regular service was put in operation June 1. (June, pg. 429.)

Windsor and Tecumseh Electric Ry.—This electric railway, which is owned by the Sandwich, Windsor and Amherstburg Ry., has been completed, and application was made June 11 to the Ontario Railway and Municipal Board for an order permitting the line to be operated. (April, pg. 273.)

Winnipeg Electric Street Ry.—A letter to the Winnipeg Board of Control, June 1,

August 1907

apparently	Windsor, Essex and Lake Shore Rapid Ry.	2500
let	A regular service of cars has been inaugurated	30
any	over the line from Windsor to Kingsville,	100
and	passing through Essex, Ont. It was pro-	750
to	posed for W. Newman, City Engineer of	800
is	Windsor, and the late Dr. Brien, and later	1000
my	A. J. Nelles became associated with them.	1200
over	These did a large portion of the preliminary	1400
sked	work of securing the franchises, etc., but	1600
the	it was not until May, 1905, that construction	1800
	was started. A contract was entered into	2000
the	with the Keystone Construction Co., of	2200
the	Philadelphia, but owing to some difficulties	2400
the	the company did not carry out the contract.	2600
last	and J. Piggott & Sons reorganized the com-	2800
of	pany, and completed the line. The track	3000
	is laid with 80 lb. steel and is constructed	3200
had	according to the standard of steam railways.	3400
pos-	The overhead construction is of the catenary	3600
s in	type, the trolley being suspended on steel	3800
ites	cables, 7-10 in. in diameter, by hangers every	4000
ter	10 ft. Stay guys are placed at distances	4200
ons,	of 1,000 ft. to prevent slackening of wires,	4400
ents	and the wires are carried on concrete poles.	4600
nts	The power house is at Kingsville, and is	4800
pay	equipped with two 300 h.p. Westinghouse	5000
and	alternating current dynamos, driven by two	5200
lines	cross-compound engines, steam being sup-	5400
and	plied by six boilers, each 350 h.p., erected	5600
shows	by the Canada Foundry Co., Toronto. The	5800
ly be	cars are 35 ft. long, are fitted with lavatories,	6000
per	smoking room, and are equipped with air	6200
do a	brakes. The motors are capable of develop-	6400
ry to	ing a speed of 70 miles an hour. There are	6600
ed	five motor cars and six trailers. For freight	6800
project	purposes the company has purchased an	7000
electric	electric locomotive capable of hauling 40	7200
that	loaded cars. Two cars will be reserved for	7400
in the	baggage and express business. The officers	7600
had of	of the company are: President, John Pig-	7800
ed at	gott, First Vice-President, Chas. Magee,	8000
range	Toronto; Second Vice-President, W. F.	8200
and	McKeough, Chatham; Secretary, W. T.	8400
for a	Piggott, Chatham; Treasurer, W. C. Craw-	8600
	ford, Yillbury, other directors: E. G. Steven-	8800
	son, Toronto; W. R. Phillimore, W. Wilson,	9000
	R. C. Chatham, P. Heschine, Detroit, Mich.	9200
By,		9400
being		9600
	also have meetings, etc.	9800

October 1907

391.60, against \$255,891.73 for July, 1906.

Windsor, Essex and Lake Shore Rapid Ry.

—The annual meeting was held Aug. 29, for the purpose of electing directors, making by-laws for various purposes, authorizing the issue of bonds, debentures and other securities, and ratifying and confirming an agreement made May 9, between the company and the Union Trust Co., Toronto, providing for a loan of \$150,000 in addition to \$450,000 already secured by the company and others to the Union Trust Co.

The Winnipeg Electric Street Ry. Co. has decided to issue an additional \$1,500,000

October 1907

Income 301.66, against \$242,891.73 for July, 1947.

Windsor, Essex and Lake Shore Rapid Ry.

—The annual meeting was held Aug. 28, for the purpose of electing directors, making by-laws for various purposes, authorizing the issue of bonds, debentures and other securities, and ratifying and confirming an agreement made May 9, between the company and the Union Trust Co., Toronto, providing for a loan of \$150,000 in addition to \$450,000 already secured by the company and others to the Union Trust Co.

The Winnipeg Electric Street Ry. Co. has decided to issue an additional \$1,500,000

October 1907

DEC., 1907]

THE RAILWAY AND MARINE WORLD

Amberley, along the Saugeen road to Kincardine, Ont. The company proposes to endeavor to raise the funds required for the construction of the line, in either Great Britain or the United States, by the sale of its bonds. The municipalities through which it is intended to run the line will be asked to guarantee the bonds.

The Ottawa Electric Ry. Co. has expressed its willingness to share the cost of constructing the proposed viaduct, provided it is not called upon to widen the Somerset St. bridge. It is possible that this street bridge may be abandoned entirely as far as street railway traffic is concerned.

St. John (N.B.) Ry.—The work of double tracking the line in various parts of the city is practically completed. An application for an injunction to restrain the company from carrying out a part of the work had been applied for, but permission had been obtained, and it was expected that the tracklaying would be completed before the application could be heard.

St. Joseph and Stratford Radial Ry.—N.

Toronto Ry.—A portion of the tracks on Yonge St., $\frac{1}{2}$ mile north of Scollard St., has been relaid with new 90-lb. rails, in 60 ft. lengths.

The relaying of the tracks between Kingston Road and Woodbine Ave. is proceeding, and in the meantime stub line cars are being utilized between the point of operation and Scarborough Beach.

Pending the relaying of tracks on Dundas St., Toronto Junction, and the settlement of the dispute between the company and the council there, a stub line service is to be supplied from the Dundas St. car barns to the city limits as soon as possible.

Windsor and Tecumseh Ry.—The township of East Sandwich has applied to the Ontario Railway and Municipal Board for an order against the company to grade and extend Ottawa St., to supply better cars, and to sell 10 tickets for 25c. to school children whether they attend school in the country or in Detroit, Mich., as per contract. See also Sandwich, Windsor and Amherstburg Ry.

December 1907

for	applicants	Windsor, Essex and Lake Shore Rapid Ry.	separ
may		A regular service of cars has been inaugurated	W.
and		over the line from Windsor to Kingsville,	for
in		passing through Essex, Ont. It was pro-	1907
is		moted by W. Newman, City Engineer of	\$100
may		Windsor, and the late Dr. Brien, and later	1908
once		A. J. Nellis, became associated with them.	cent
		These did a large portion of the preliminary	for
led		work of securing the franchises, etc., but	for
the		it was not until May, 1905, that construction	\$12
		was started. A contract was entered into	200
The		with the Keystone Construction Co., of	\$28
the		Philadelphia, but owing to some difficulties	\$10
the		the company did not carry out the contract.	\$10
net		and J. Figgott & Sons reorganized the com-	\$2
of		pany, and completed the line. The track	car
A		is laid with 80-lb. steel and is constructed	\$1
red		according to the standard of steam railways.	300
pos		The overhead construction is of the catenary	\$60
s in		type, the trolley being suspended on steel	car
are		cables, 7-16 in. in diameter, by hangers every	\$1
ter		10 ft. Strand guys are placed at distances	an
nts		of 1,100 ft. to prevent sagging of wires.	of
ants		and the wires are carried on concrete poles.	en
nts		The power house is at Kingsville, and is	
pay		equipped with two 300 k. w. Westinghouse	to
and		alternating current dynamos, driven by two	by
lines		cross-compound engines, steam being sup-	to
and		plied by six boilers, each 360 h.p., erected	
owns		by the Canada Foundry Co., Toronto. The	71
by be		cars are 55 ft. long, are fitted with lavatories,	Y
per		smoking room, and are equipped with air	A
do a		brakes. The motors are capable of develop-	sl
ay to		ing a speed of 70 miles an hour. There are	0
ed		five motor cars and six trailers. For freight	
object		purposes the company has purchased an	1
electric		electric locomotive capable of hauling 40	4
way		loaded cars. Two cars will be reserved for	2
that		baggage and express business. The officers	
in the		of the company are: President, John Fig-	
but if		gott; First Vice-President, Chas. Magee,	
ed at		Toronto; Second Vice-President, W. E.	
change		McKeough, Chatham; Secretary, W. T.	
and		Figgott, Chatham; Treasurer, W. C. Crow-	
for a		ford, Yillbury; other directors, E. G. Steves-	
		on, Toronto; W. R. Phillimore, M. Wilson,	
By.		R. L. Chatham, P. Heseltine, Detroit, Mich.	
being			

... Plans, Meetings, Etc.

October 1907

Dec., 1907]

THE RAILWAY AND MARINE WORLD

Amberley, along the Saugeen road to Kincardine, Ont. The company proposes to endeavor to raise the funds required for the construction of the line, in either Great Britain or the United States, by the sale of its bonds. The municipalities through which it is intended to run the line will be asked to guarantee the bonds.

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December
1907

stations, etc.

Windsor and Tecumseh Electric Ry.—The hearing of the case against the company brought by the township of Sandwich East, involving the question of street grading there, took place at Windsor, Ont., Dec. 20.

Winnipeg Electric Street Ry.—The man-

December 1907

stations, etc.

Windsor and Tecumseh Electric Ry.—The hearing of the case against the company brought by the township of Sandwich East, involving the question of street grading there, took place at Windsor, Ont., Dec. 20.

Winnipeg Electric Street Ry.—The mun-

February
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H. (June, 1906, pg. 345).

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st- **Windsor, Essex and Lake Shore Rapid Ry.**

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—We are advised that the line is in operation between Windsor and Kingsville, Ont., and the grading between Kingsville and Leamington has been completed. Tracklaying is in progress, and it was expected that this work would be finished by Jan. 30. The electric locomotive ordered from the Canadian Westinghouse Co., Hamilton, Ont., we were advised Jan. 7, was expected to be delivered a few days thereafter. (Oct., 1907, pg. 761).

Winnipeg, Selkirk and Lake Winnipeg Ry.
The electrical equipment of this line is

February 1908

JUNE, 1908]

THE RAILWAY AND MARINE WORLD

individual honesty, because rules and regulations designed, as the result of long experience, for the safety of life and property, are of very little value unless a large organization such as ours can rely upon the individual honesty of the men in whose hands a portion of responsibility is placed. We respectfully suggest that honesty and truthfulness can be cultivated throughout all branches of the service by means of a cordial understanding between officers and men, in which a man may rely when possibly in trouble or difficulty. Although to speak the truth in some cases may mean discipline, we believe that even in such cases anything less than the truth is a sacrifice of manhood which in nine cases out of ten is easily detected, and which yields no satisfaction on either side. As the system of surprise checking has been mentioned, we wish to say, that in our opinion, the man who is honest in his work has nothing whatever to fear from any system of check, and that if looked upon in the proper light the system will be seen to be intended to take care of the weaker men. In conclusion, we feel sure that this conference has contributed largely to a feeling of confidence on the part of the men and of goodwill on the part of the officers, which will mean a wider acknowledgment of the advantages of being honest in all our dealings and of speaking the truth under all circumstances.—H. Brown, J. Chamberlain, L. R. Ward."

Ontario Railway and Municipal Board.

ELECTRIC RAILWAYS

Sandwich, Windsor and Amherstburg Ry.

The annual report of the Detroit United Ry. Co. for 1907 contains some particulars about its subsidiary, the Sandwich, Windsor and Amherstburg Ry. Co.: Mileage, Jan. 1, 1907, 25,260 miles, to which there was added during 1907, 10,183 1/2 miles; interest on funded and floating debt, \$18,000; revenue passengers, 2,604,054; transfer passengers, 282,870; employee passengers, 32,153; car mileage, 601,575; earnings, car mile, 2631; expenses car mile, 1748; net earnings car mile, .0883. Under the head of additions and betterments, there was spent during the year on the construction of the Windsor and Tecumseh extension, additions to power house and lighting plant, seven additions cars and construction of tracks on Elm St. loop, including paving and additional feed wire, \$92,644.06.

BALANCE SHEET S.W. & A.R. CO.

Capital stock	\$ 297,000.00
Mortgage bonds	190,000.00
Bills payable	70,000.00
Accrued interest on bonds	1,500.00
Accrued insurance	542.26
Detroit United Railway	193,204.23
Accident fund	735.28
Current liabilities	4,937.61
Unredeemed tickets	1,932.78
Profit and loss	31,538.00
Plant	\$ 904,428.64
W. & T.E. Ry. Co. (50%)	10,000.00
W. & T.E. Ry. Co.	171,690.50
Current assets	875.80
Prepaid taxes	2,425.34
Stores	1,623.14
Cash	2,374.74

\$1,093,368.16 \$1,093,368.16

June 1908

OCTOBER, 1909.]

THE

Electric Railway Notes.

The British Columbia Electric Ry. is reported to be planning to construct 25 pay-as-you-enter cars at its Vancouver shops.

F. L. Wilson, who died at Centre Island, Toronto, Sept. 16, was father of C. L. Wilson, Assistant Manager Toronto and York Radial Ry.

The Windsor, Essex and Lake Shore Rapid Ry., is in the market for six new or second hand flat cars and three box cars, standard type, equipped with air brakes.

October 1909

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This company does not issue a separate report, its operations being included with those of the Detroit United Ry., of which system it is a part. The following particulars of the S. W. & A. Ry. are extracted from the D. U. R. report for the year 1909. Mileage on Jan. 1, 1909, 35,813 miles, to which .247 miles were added during the year. Interest on funded and floating debt and taxes, \$26,-803.57. Revenue passengers, 3,018,413; transfer passengers, 256,665; employee passengers 20,920; total, 3,395,998. Receipts revenue passengers, .0541; receipts per passenger, .0480. Car mileage, 854,-641; earnings car mile, .1991; expenses car mile, .1078; net earnings car mile, .0913. An extension of lighting plants and addition to power house was built at a cost of \$26,644.34. In the D. U. R. assets the S. W. & A. R. is included as an investment at \$253,134.91, and under accounts current at \$193,075.92.

Capital stock		\$ 297,000.00
Mortgage bonds		490,000.00
Accrued interest on bonds		4,987.50
Detroit United Rail way		193,075.92
Vouchers Payable		1,698.17
Injuries and damages Reserve		906.88
Insurance reserve		737.86
Unredeemed tickets		2,841.84
Profit and loss		18,096.56
Investment	\$ 944,943.98	
W. & T.E. Ry. Co. (stock)	10,000.00	
W. & T.E. Ry. Co.	5,115.84	
Accounts receivable	876.61	
Stores	906.62	
Cash	47,501.68	

\$1,009,344.73 \$1,009,344.73

Capital stock		\$ 100,000.00
Mortgage bonds		189,000.00
Sandwich, Windsor & Amherstburg Ry.		5,115.84
Investment	\$ 294,115.84	
	<u>\$ 294,115.84</u>	<u>\$294,115.84</u>

The earnings and expenses of the Windsor & Tecumseh Electric Ry. are included in the operations of the S. W. & A. R., which latter company owns all of the capital stock of the W. & T. E. R. Co.

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MAY 1910

THE RAILWAY AND MARINE WORLD.

JUNE, 1911.]

Electric Railway Notes.

The Montreal St. Ry. recently received two trailer cars from the Preston Car and Coach Co., Preston, Ont.

The Calgary Municipal St. Ry. has received four single truck cars from the Preston Car and Coach Co., Preston, Ont.

The Guelph Radial Ry. has ordered two double end pay-as-you-enter cars from the Preston Car and Coach Co., Preston, Ont.

The Ottawa Electric Ry. has ordered one heavy double broom electric steel frame snow sweeper from the Ottawa Car Co., Ottawa.

The Moose Jaw Electric Ry. has received four 21 ft. car bodies, 31 1/2 ft. over all, mounted on 21-E trucks, from the Ottawa Car Co., Ottawa.

The Windsor, Essex and Rapid Ry., Kingsville, Ont., has ordered one baggage car from the Preston Car and Coach Co., Preston, Ont.

The British Columbia Electric Ry. has ordered 16 Hart-Otis dump cars, 60,000 lbs. capacity, from the Hart-Otis Car Co. Ltd., Montreal. These will be built by the Canadian Car and Foundry Co., Montreal.

The Ottawa Electric Ry. has been notified that the Dominion Government will not renew the contract for the carriage of mails to and from the

carriage. It is proposed to use auto-

The

end control, with 12 walk-over and four longitudinal seats, upholstered in rattan, from the Preston Car and Coach Co., Ltd., Preston, Ont. They will be finished in cherry, inside and out, and fitted with sliding door on one side of vestibule and automatic folding doors will be opposite side. The car bodies will be 33 1/2 ft. long, and the cars will be 48 1/2 ft. long over all.

The two double ended pay-as-you-enter cars, which the Guelph Radial Ry. is having built by the Preston Car and Coach Co., Preston, Ont., will be mounted on 27-G-1 trucks, equipped with Westinghouse 108-B-2 motors, quadrupole equipment, double end control. They will be finished in cherry on the inside and painted outside, and fitted with 10 walkover and four longitudinal seats, with spring seats and backs, upholstered in rattan. The heating system will consist of 14 heaters supplied by the Consolidated Car Heating Co. system 192-W. The vestibules at each end will be extra long being 7 1/2 ft. over all, with sliding door at one side and a double folding automatic door on the opposite side.

The Montreal and Southern Counties Ry. (G.T.R.) has ordered one electric motor combination passenger and baggage car, to be built in the G.T.R. shops, Montreal, in addition to the one previously ordered, as mentioned in our last issue.

Following are the chief details—

Approximate length, baggage compartment and motorman's cab . . . 18 ft. 5 ins.
Baggage doors width . . . 8 ft. 8 ins.
Motors . . . Westinghouse

S. W. & A. Railway Cars.

The diagrams on this page show the elevation and floor plan of the six cars which the Sandwich, Windsor and Amherstburg Ry. has ordered from the Preston Car and Coach Co. They will be omnibus body, single truck cars, mounted on 21-E trucks, 7 1/2 ft. wheel base, 33 n. wheels. They are for single end operation. The width over sills will be 7 ft. The width over posts above the belt rail 8 ft. 1 1/2 in. The front vestibule will be 4 1/2 ft. long, the rear vestibule 6 1/2 ft. long. There will be one pair of automatic folding doors in the front vestibule, and two pairs of automatic folding doors in the rear vestibule. The doors in the rear vestibule may be operated independently of one another by the conductor, who will have the controlling mechanism located where he stands inside of the P.A.Y.E. railing. The steps in both the front and rear will operate along with the door, so that when the door is closed the steps are folded up. The same handle that controls the door will control the front also. The same thing occurs in the rear. There will be no bulkhead in either end of the car body. The lower panel of both front and rear vestibule door will be in plate glass. These are said to be the first cars in Canada equipped in this way. The interior of the cars will be this way.

49 ft. 4 ins.
38 ft. 6 ins.
8 ft. 1 1/2 ins.
7 ft. 4 1/2 ins.

The Sandwich, Windsor and Amherstburg Railway's Franchises.

At a public meeting held in Windsor, Ont., recently, called by the joint transportation committee for Windsor and Walkerville, a resolution was passed recommending the councils of the two municipalities to submit bylaws to the people granting an extension of franchise to the company with the right to purchase the entire system at any time during one year notice. The committee presented a lengthy report, in which it was stated that the company's system is operated under nine different franchises, which will expire as follows: In Windsor and upon the belt line in Walkerville in 1922; franchise in Sandwich in 1921; the franchises for the Windsor & Tecumseh Electric Ry., on Sandwich St., in Windsor, Walkerville and Ford, and on the Walker Road, Walkerville, in 1924. The company claims a perpetual franchise on the line from Sandwich to Amherstburg, and from Askin's Point in Ford to Tecumseh, by virtue of owning the right of way. The question of acquiring the railway and running it as a public ownership enterprise by two, three or more municipalities was dealt with in the report. It was pointed out that legislation might be obtained to give the Essex Border Utilities Commission the necessary power to apply to the Hydro Electric Power Commission of Ontario, which could operate the system for the nine municipalities served. A conference was held with the officers of the railway, and they agreed, if given new franchises until 1931 in Windsor and Walkerville, to build the needed extensions at once and sell to the municipalities at any time, upon one year notice, the entire system at its actual value as fixed by a board of arbitration, the valuation to include no value whatever for the extended, i.e., new, franchises. The board of arbitration would consist of three men, one appointed by the company, one by the municipalities, and the third by the two appointed members. One half of the cost of arbitration would be borne by the municipalities. An agreement was reached whereby the municipalities might decline to take over the property of the company at the valuation set by the

wait until after the war, because the Ontario Legislature passed an act in 1916 whereby the commission cannot borrow any money for new undertakings until after the termination of the war. In order to put the two plans before the people the two municipal engineers should ascertain the approximate cost of construction of needed tracks, poles and overhead wires, with the apportionment of such costs between Windsor and Walkerville, and the two solicitors should prepare the necessary franchise and debenture bylaws for submission to the electors.

At a meeting of the Windsor City Council, July 3, it was resolved to submit two questions to the people, the first whether they want to have the electric railways municipally owned, and secondly whether they are willing to grant an extension of the franchise to 1931, subject to conditions. (June, pg. 242; July, pg. 286.)

Calgary Municipal Railway Wages and Working Conditions.

An agreement signed June 22, between the Calgary, Alta., City Commissioners, and the Calgary Municipal Ry. employees provides for the following wages: Per hour, 1st year, 32c; 3rd 6 months, 38c; 4th 6 months, 34c; 5th 6 months, 35c; 6th 6 months, 36c; 7th 6 months, 37c. Five cents an hour additional is to be paid to motor-conductors operating one-man cars. Men operating one-man cars outside the boundaries of Eighth Ave. and Eighth St. West, and Seventeenth Ave. and Second St. East "shall be paid conductor and motorman's rate. Bonus included when not operated within these limits. Five cents an hour extra to be paid motormen when training students. Wages to be paid on the 6th and 21st of each month. Nine hours to constitute a day's work; straight platform rate to be paid for overtime, and time and a half for work on Good Friday, Victoria Day, Dominion Day, civic holiday, Labor Day, Thanksgiving Day, Christmas Day and New Year's Day. Fifty cents to be allowed employees for attending once a month lec-

Montreal Tramways Mutual Benefit Association.

The report for the year ended April 30 gives the following summary of relief work done during the year:

	1916-17
Members disabled through sickness or injury	1,424
Visits made by physicians to disabled members	567
Consultations given by physicians to disabled members	8,329
Prescriptions issued	4,973
Paid for sickness and injury	\$18,002.50
Paid for medicine	1,327.50
Paid for pensions	1,231.50
Paid for withdrawals	545.32
Paid for death and burial insurance	8,606.02

Twenty members died during the year. The committee reports the appreciation shown by the beneficiaries of deceased members for the prompt payment of the amount due to them for death and burial benefits. Since the formation of the association, to the end of April last, 261 members died, and the association paid in death and burial benefits \$107,509.53. During the year a motorman requested to have his benefits commuted, which was agreed to by the committee.

The committee gratefully acknowledge a special Christmas donation of \$2,500 from the Montreal Tramways Co., making the contributions received from the company \$17,256.56, which amount, added to the fees and dues received from the members, \$16,443.50, and interest received on investments and bank deposits, \$10,239.87, makes a total revenue for the year of \$43,944.98. The expenses being \$35,463.93, leaves a surplus of \$8,476.

The officers are: J. E. Hutcheson, President; Patrick Dubee, Secretary-Treasurer; the other members of the committee being C. Gagnon, E. A. Robert, N. Allard, A. Gaboury, N. Surprenant, A. S. Byrd, A. Morency, R. M. Hannafoord, U. Perron, D. E. Blair, O. Morin, Hon. J. L. Perron, K.C., J. J. Gethings.

Winnipeg Electric Railway Co's Position.

Winnipeg press dispatch, Aug. 15:—The city was astounded at the announce-

upon the best line in 1931; the franchise in Sandwich in 1931; the franchises for the Windsor & Tecumseh Electric Ry., on Sandwich St., in Windsor, Walkerville and Ford, and on the Walker Road, Walkerville, in 1934. The company claims a perpetual franchise on the line from Sandwich to Amherstburg, and from Askin's Point in Ford to Tecumseh, by virtue of owning the right of way. The question of acquiring the railway and running it as a public ownership enterprise by two, three or more municipalities was dealt with in the report. It was pointed out that legislation might be obtained to give the Essex Border Utilities Commission the necessary power to apply to the Hydro Electric Power Commission of Ontario, which could operate the system for the nine municipalities served. A conference was held with the officers of the railway, and they agreed, if given new franchises until 1931 in Windsor and Walkerville, to build the needed extensions at once and sell to the municipalities at any time, upon one year notice, the entire system at its actual value as fixed by a board of arbitration, the valuation to include no value whatever for the extended, i.e., new, franchises. The board of arbitration would consist of three men, one appointed by the company, one by the municipalities, and the third by the two appointed members. One half of the cost of arbitration would be borne by the company, and the other half by the municipalities. An agreement was reached whereby the municipalities might decline to take over the property of the company at the valuation set by the board of arbitration, but the award would be binding on the company. The company was not disposed to enter into any operating agreement for municipal control or supervision, such as in Cleveland or Chicago.

The committee recommended that the electors be given, as soon as possible, an opportunity to vote on both plans, viz.: (1) That the municipalities of Windsor and Walkerville build the tracks (across Ottawa St. in Walkerville and Erie St. in Windsor) and have them operated at a fair rental, to be determined by the Ontario Railway and Municipal Board, even though the rental does not meet the interest, sinking fund and maintenance charges. (2) That the company be given an extension of franchise to 1931, without franchise values attached, and the right to purchase the entire system at appraised valuation whenever the people wish to purchase, which will be governed largely by market conditions of money, material and labor. In conclusion, the committee said: "If the Ontario Hydro Electric Power Commission is to operate the system for the municipalities we must

Council, just two questions whether the railways in whether the tension of to condition 286.)

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An agreement between the Calgary and the City of Calgary provides for 1 hour, 1st 4th 6. mo 6th 6 months and motor-con Men operate boundary West, and St. East. motorman not operate cents an when train paid on 1 Nine hours straight overtime on Good Day, giving 1 Year's 1 employee tures on spare m reporting for active on hour run or employee

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Electric Railway Projects, Construction, Betterments, Etc.

The Edmonton Interurban Ry., which extends from the outskirts of Edmonton, Alta., to St. Albert, 9.50 miles, was completed and put in operation, Dec. 21, 1913, a gasoline car service being operated. The line was either partially or wholly electrified in 1914-15, and an arrangement was made in Sept. 1915 with the City of Edmonton for its Edmonton Radial Ry. to operate the E.I. Ry. from Edmonton to Calder, about two miles, which arrangement is still in effect. A press report states that efforts were made during 1920 to arrange for the sale of the E.I. Ry. line, etc., to the city, negotiations being started on the basis of an offer by the company to take \$20,000, that this was met by an offer of \$12,000 by the city, and that the company reduced its price to \$15,000. It was reported Jan. 5 that the company had given notice to terminate the agreement for the operation of the line on Mar. 31. (April, 1916, pg. 156.)

Edmonton Radial Ry.—We are officially advised that work was commenced on the following extensions in 1919, that track was laid during 1920, and that they will be finally completed this year: Loop built in exhibition grounds, 3,000 ft; addition to Interurban Ry. Co.'s tracks in Calder, Alta., 2,000 ft. (April, 1920, pg. 202.)

The Grand River Ry. has, we are officially advised, under construction an additional track from Preston to Hayes, Ont., 1.132 miles; and a revision of its double track line in Galt, 1.524 miles. A. E. Rigley, St. Catharines, Ont., is the contractor.

In connection with the revision of the track in Kitchener, we are officially advised that the total length of line is 1.742 miles, and that it is expected during the year to abandon 0.935 of a mile of the original mileage, which is still being used under agreement with the city, the new track on revision not being in service. (Jan., pg. 36.)

Hydro Electric Ry., Essex Division.—We are officially advised that during 1920 there was laid 4,031 ft. of new track, on London St., Windsor; Ont., from Ouellette Ave. to the Michigan Central Rd. bridge, converting the line for that distance into a double track one. The management has under survey the following extensions or additions, with a view to putting them under construction during this year: Loop on Sandwich, Ferry and Pitt Sts., 1,245 ft.; double track on Ouellette Ave., 7,065 ft.; double track belt line on Wyandotte, Monmouth, Ottawa, Parent and Erie Sts., 19,977 ft. (Nov.,

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mendation of the Officer, and reading the submissions filed in support of the application, the Board orders that the said tariff, to become effective Dec. 6, 1920, be approved; the tariff, with a reference to this order, to be published in at least two consecutive weekly issues of The Canada Gazette.

Assistant Chief Commissioner J. S. McLean addressed the following memorandum in connection with this case to the Chief Commissioner:—This company was permitted by a judgment of June 7, 1918, to apply the 15% increase on freight. It did not apply the subsequent increase provided for under Privy Council order 1863. It is now asking to apply the 40% on its existing basis, wherein the increase of P.C. 1863 is not included.

Mr. Brown's memo. of Sept. 24, 1920, on file, compares the proposed standard with the rates authorized under general order 308. The following computation, based on first-class rates, compares the proposed standard of the applicant (set out as B) with the rates established under general order 308 (set out as D), and also indicates the per cent. by which B is below D:

			B expressed as per cent. of D.	
Not over	Rate under B.	Rate under D.		
5 miles.....	12½	24	52%	
5 — 10 miles.....	16	24	66%	
10 — 15 miles.....	19½	24½	79%	
15 — 20 miles.....	22½	28	80%	
20 — 25 miles.....	25	32	81%	
25 — 30 miles.....	28½	35½	80%	
30 — 35 miles.....	32	40½	79%	
35 — 40 miles.....	35½	45	78%	

It will be noted that on the mileages 15-40 the rates resulting from applying the 40% increase to its existing base are approximately 20% below the basis as indicated in the 15% case, with the appropriate increases under P.C. 1863 and general order 308.

As was set out in the judgment of 1918, the only agreement existing between the railway and any municipality which in any way bears on the level of freight rates is as set out in sec. 7 of bylaw 1101 of the City of Windsor, which bylaw is in respect of the Windsor, Essex & Lake Shore Rapid Ry. The provision in question provides: "The company shall carry freight to and from Windsor upon the entire or any portion of its system at rates not in excess of regular steam railroad rates for similar distances and between the same places."

The apparent intention is that the steam railway rates, in the area as defined, changed as they may be from time to time, shall act as maxima. The statements on file, attached to applicant's letter of Nov. 4, shows comparison of rates as asked for between given points, and the rates as applicable between the same points, either by the Michigan Central or the Pere Marquette, according to the location of the points in question. Taking first-class rates as a basis of comparison, the proposed rates of the applicant average 73% of the rates of the Michigan Central in the case of movements common to the two lines between Leamington and Essex, Maidstone and Windsor, between Essex, Maidstone and Windsor, and between Maidstone and

adjacent to Walkerville. If comparisons are made on the basis of 5th and 10th class averages, the following detail is available for the same points:

	On 5th class.	On 10th class.
Percentage of M.C.R. rates	69%	76%
Percentage of P.M. rates	70%	76%

The first standard freight tariff of the railway was approved by the Board's order of Oct. 4, 1907. It was at that time set out that the basis was that generally applicable on the railways of Ontario and Quebec. I think that in the present instance the increase proposed should be allowed.

It may also be pointed out that for the year ended June 30, 1919, with a total revenue of \$198,565, there was a deficit, after payment of taxes and interest, of \$14,972, while for the year ended June 30, 1920, with a total revenue of \$251,266, there was a net income, after paying interest and taxes, of \$5,876. In neither of these years was any dividend paid on the capital stock, which amounts to \$750,000.

The above recommendation was concurred in by Chief Commissioner Carvell, and Commissioners Boyce and Rutherford.

Toronto Civic Railway Report.

Toronto's Works Commissioner, in an interim report on his department's work for the 11 months ended Nov. 30, 1920, gives the following information respecting Toronto Civic Ry.:

Traffic increased steadily during 1920. Comparing the first 11 months with the same period in 1919, the following increases have occurred:—

Route.	Passengers.	Mileage.
Gerrard	30.2%	15.7%
Danforth	26.3%	30.0%
St. Clair	19.0%	7.6%
Lansdowne	26.4%	9.7%
Bloor	25.6%	12.2%
Entire system	23.9%	17.5%

The passenger traffic increased from 23,587,271 passengers in 1919, to 29,234,826 in 1920, and the mileage from 1,665,997 to 1,956,813. About 100,000 revenue passengers per day are now being carried.

The following are the hourly rates of motormen and conductors:—

	From July 4, 1919, to Dec. 31, 1919	From Jan. 1, 1920, to Nov. 30, 1920
1st 3 months	50c.	60c.
Next 9 months	52½c.	63c.
2nd year and thereafter	55c.	66c.

If working as operators on safety cars, a differential of 5c. an hour is added. The average number of men on the staff during 1919 was 220, while 245 are employed at present.

Twenty-five safety cars, operated by one man, were received in August. They were placed in operation in the base schedule on Gerrard St. route on Aug. 17, and in the base schedule on Danforth Ave. route on Aug. 27. Commencing on Oct. 22, the full service on the Bloor St. route was given with these cars. The railway now operates 70 cars, the receipt of the safety cars making it possible to greatly improve the service on all routes.

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clared against it.

Windsor, Essex and Lake Shore Rapid Ry.—Application is being made to the Dominion Parliament for an act extending the time for the commencement and completion of the construction of the balance of the authorized line.



charter and is not under the Board of Railway Commissioners' jurisdiction.

Windsor, Essex & Lake Shore Rapid Ry.—The Board of Railway Commissioners passed order 30,392, Nov. 30, as follows:—Re application of Windsor, Essex & Lake Shore Rapid Ry., under sec. 331 of the Railway Act, 1919, for approval of its Standard Mileage Freight Tariff, C.R.C. 269. Upon the report and recommendation of the Board's Chief Traffic Officer, and reading the submissions filed in support of the application, the Board orders that the said tariff, to become effective Dec. 6, 1920, be approved; the tariff, with a reference to this order, to be published in at least two consecutive weekly issues of The Canada Gazette.

Assistant Chief Commissioner J. S. McLean addressed the following memorandum in connection with this case to the Chief Commissioner:—This company was permitted by a judgment of June 7, 1918, to apply the 15% increase on freight. It did not apply the subsequent increase provided for under Privy Council order 1863. It is now asking to apply the 40% on its existing basis, wherein the increase of P.C. 1863 is not included.

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Windsor. In the case of the movements common to the applicant and the Pere Marquette, the rates of the applicant on the same basis of comparison average 70% of the rates of the Pere Marquette on movements from Leamington to Ruthven, Kingsville and Walkerville (Windsor), Ruthven and Kingsville, Ruthven and Walkerville (Windsor), Kingsville and Walkerville (Windsor), Windsor is enclosed in brackets because it is the applicant's stopping place most closely adjacent to Walkerville. If comparisons are made on the basis of 5th and 10th class averages, the following detail is available for the same points:

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Percentage of M.C.R. rates.....	69%	76%
Percentage of P.M. rates.....	70%	76%

The first standard freight tariff of the railway was approved by the Board's order of Oct. 4, 1907. It was at that time set out that the basis was that generally applicable on the railways of Ontario and Quebec. I think that in the present instance the increase proposed should be allowed.

It may also be pointed out that for the year ended June 30, 1919, with a total revenue of \$198,565, there was a deficit, after payment of taxes and interest, of \$14,972, while for the year ended June 30, 1920, with a total revenue of \$251,266, there was a net income, after paying interest and taxes, of \$5,876. In neither of these years was any dividend paid on the capital stock, which amounts to \$750,000.

The above recommendation was concurred in by Chief Commissioner Carvell, and Commissioners Boyce and Rutherford.

Toronto Civic Railway Report.

Toronto's Works Commissioner, in an interim report on his department's work for the 11 months ended Nov. 30, 1920, gives the following information respecting Toronto Civic Ry.:

Traffic increased steadily during 1920. Comparing the first 11 months with the same period in 1919, the following increases have occurred:—

Route.	Passengers.	Mileage.
Gerrard	30.2%	15.7%
Danforth	28.3%	30.0%
St. Clair	19.0%	7.6%
Lansdowne	25.4%	9.7%
Bloor	25.5%	12.2%
Entire system	23.9%	17.5%

The passenger traffic increased from 23,587,271 passengers in 1919, to 29,234,826 in 1920, and the mileage from 1,865,997 to 1,956,813. About 100,000 revenue passengers per day are now being carried.

The following are the hourly rates of motormen and conductors:—

	From Jan. 1, 1919, to Dec. 31, 1919	From Jan. 1, 1920, to Nov. 30, 1920
1st 3 months	50c.	50c.
Next 9 months	52½c.	53c.
2nd year and thereafter	55c.	56c.

If working as operators on safety cars, a differential of 5c. an hour is added.

A permanent double track was laid on Bloor St., between Quebec Ave. and Runnymede Road. It was opened for service on Oct. 20 and the temporary single track was removed the following week. Additional storage tracks were laid in the yards at Danforth Ave. and Bloor St. barns. During the fall, new trolley wire was strung on the whole of the St. Clair Ave. route and between Lamb and Broadview Ave. on the Danforth Ave. route.

Electric Railway Finance, Meetings, Etc.

British Columbia Electric Ry. and allied companies:—

	Oct. 1920	Oct. 1919	3 mos. to Oct. 31, 1920	3 mos. to Oct. 31, 1919
Gross	\$781,706	\$718,405	\$3,035,399	\$2,704,511
Expenses	597,367	525,980	2,305,064	2,022,468
Net	184,339	192,415	730,335	681,143

Cape Breton Electric Co.:—

	Oct. 1920	Oct. 1919	10 mos. to Oct. 31, 1920	10 mos. to Oct. 31, 1919
Gross	\$3,255.34	\$50,590.84	\$520,224	\$477,105
Expenses	49,589	44,106	452,435	\$74,258
Net	6,485	13,655	67,789	102,847

Edmonton Radial Ry.—A statement for the nine months ended Sept. 30, 1920, issued by the City of Edmonton, Alta., gives the following information as to the operation of the municipal railway:—

	1920	1919
Net deficit	\$141,397.16	\$53,823
Passengers carried	10,970,174	9,479,439

A press report states that the earnings of the railway for Oct. 1920, were \$75,721.68, and for Nov. 1920, approximately \$81,000.

Quebec Ry., Light & Power Co.—A press report states that the earnings for the three months ending Sept. 30, 1920, were \$323,798, an increase of 21.97%.

Sudbury-Copper Cliff Suburban Electric Ry. Co.—Sudbury, Ont., Town Council has, a press report states, decided not to buy the company's railway for \$190,000, at which it was offered. The matter of the sale of the line to the town had been under discussion for some time, and it was expected that a bylaw to authorize the purchase would have been submitted to the ratepayers on Jan. 1.

Toronto Railway.—

	1920	City	1919	City
	Receipts	percentage	Receipts	percentage
Jan.	\$ 652,350	\$110,950	\$ 585,225	\$ 98,339
Feb.	595,861	119,172	545,771	96,563
Mar.	745,708	149,141	615,558	123,165
Apr.	659,340	130,668	600,231	120,846
May	644,453	132,322	620,068	124,914
June	544,828	108,986	431,082	86,217
July	641,793	128,599	534,412	128,369
Aug.	631,521	126,304	629,540	125,908
Sept.	490,546	55,243	641,422	51,313
Oct.	671,294	60,940	660,913	57,919
Nov.	677,283	79,584	638,570	72,511
	\$7,168,925	\$1,202,319	\$6,496,758	\$1,074,294

Toronto Ry., Toronto & York Radial Ry. and allied companies:—

	Oct. 1920	Oct. 1919	10 mos. to Oct. 31, 1920	10 mos. to Oct. 31, 1919
Gross	\$1,231,290	\$1,123,801	\$11,949,686	\$10,442,259
Expenses	\$69,061	729,430	8,278,471	6,515,461
Net	\$449,229	\$394,371	\$3,671,215	\$3,926,798

the company to lay new tracks. (April, pg. 213.)

Hydro Electric Ry.—Essex Division.—

A press report states that Windsor, Ont., city officials state that paving on Ottawa and other streets cannot be started until the Hydro Electric Power Commission of Ontario is ready to lay the new tracks for the electric railway. The new track work outlined by the Commission includes lines on Ottawa St., Parent Ave. and Erie St., Windsor, and on Monmouth Road, Walkerville. (April, pg. 213.)

London & Port Stanley Ry.—The ques-

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THE WORLD

August, 1921.

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April, 1921.

CANADA

Electric Railway Projects, Const

Brantford Municipal Ry. — Brantford, Ont., Street Railway Commissioners have recommended to the city's advisory board of control the following betterments for this year:—

Mohawk Park, construction	\$3,291
West Mill St.	23,111
West Oxford St.	5,411
Holmesdale and Ferrace Hill	38,742
Eagle Place, construction	9,297

\$79,852

(Aug. 1920, pg. 450.)

Hamilton St. Ry. — The Hamilton Board of Control has been considering the questions of paving on streets where the Hamilton St. Ry. operates. It is stated that the company had cancelled orders for rails to be laid on certain streets, and that it has no money to do its part of the repaving work. The City Engineer is reported to have advised that application be made to the Ontario Railway and Municipal Board.

The extension of the King Street west line from Margaret Street to Paradise Road, one mile, is reported to have been opened for traffic recently as far as the McKittrick bridge. The track is laid as far as Paradise Road, but owing to the difficulty in getting cement last autumn the completion of the extension was postponed. The work will now be completed, and it is expected to have the whole extension opened shortly. (Jan., pg. 36.)

Hydro Electric Ry.-Essex Division. — Plans for extensions and improvements of the electric railway in Windsor Ont., which include some second track work, in addition to other betterments, are under consideration by the Windsor City Council in connection with the repavement of the streets. It is said that the percentages paid to the city by the old Sandwich, Windsor & Amherstburg Ry. Co. were used in connection with the paving on the streets on which the rails are laid, and it is claimed that the cost should be borne by the users of the cars and not by the ratepayers generally. (Feb., pg. 92.)

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(July, pg. 381.)

Hydro Electric Ry.—Essex Division.—

In connection with a recent press report that the Windsor City Council had authorized the expenditure of \$900,000 for the improvement of the local electric railway system, the council has passed a bylaw authorizing the issuing of debentures and the depositing of them with the Hydro Electric Power Commission of Ontario to the amount of \$457,500, this being Windsor's proportion of the total expenditure of \$900,000 being raised to pay the cost of extension, additional works and equipment of the Hydro Electric Ry.'s Essex Division, formerly the Sandwich, Windsor & Amherstburg Ry.

We are officially advised that the following improvements, etc., are proposed for this year by the Hydro Electric Power Commission of Ontario, which operates the lines:—Rehabilitating present rolling stock and buying 20 new cars. Installing additional rotary converters at Windsor and Amherstburg, with an automatic sub-station at Amherstburg. Double tracking Ouellette Ave., from London St. to Erie St., and repairing Ouelette Ave., from Erie St. to Tecumseh Road. Double tracking and repairing Wyandotte St., from Ouelette Ave. to Devonshire Road. Building loop at Ferry St. New car barn entrance layout on

October, 1921.

way Projects, Construction, Betterments, Etc.

The relaying of tracks on the York St. line is reported to have been held up owing to a shortage of bricks for paving. (Aug., pg. 434.)

Fort William Municipal Ry.—Fort William, Ont., ratepayers voted recently in favor of expending \$30,000 for the extension of the railway to the new Chipewawa Park, on the Indian Mission, purchased recently. The City Council is reported to have decided on Aug. 23 to buy a right of way for the line from the Indians. (May, pg. 268.)

Hull Electric Co.—In the fire which swept Aylmer, Que., recently, doing about \$750,000 damage, the Hull Electric Co.'s property and equipment was damaged to the amount of \$4,000, but the cost of reconstructing the damaged lines is estimated at approximately \$8,000. We are officially advised that the company intends laying half a mile of 85 lb. rails on Main St., Aylmer, replacing the present 65 lb. rail. (Aug., 1920, pg. 450.)

Kitchener & Waterloo St. Ry.—A press report states that the Kitchener, Ont., Light Commissioners have decided to postpone building the proposed second track in the northeastern part of the city until a debenture bylaw to provide the funds has been passed by the ratepayers. (June, pg. 322.)

Lake Erie & Northern Ry.—The Board of Railway Commissioners is reported to have directed the company to build an industrial spur in the Holmedale district of Brantford, Ont., by July 19, 1922. (Oct., 1920, pg. 461.)

London & Port Stanley Ry.—A press report states that the remodelling of the station at Port Stanley, Ont., which will include putting in of a concrete foundation and changing the interior, will be started at an early date. (Aug., pg. 434.)

Ontario Hydro Electric Railways—Essex Division.—The Premier of Ontario is reported to have announced Sept. 2, that the Ontario Government will guarantee a bond issue of \$900,000 to cover the cost of improvements on the electric railway in Windsor, Ont., and vicinity. Work is reported to have been started, Sept. 19, on the construction of a double track line on East Wyandotte St., and Ouellette Ave., and on a loop line from Sandwich St., on Ferry and Pitt Streets, to Ouellette Ave., Windsor. (July, pg. 381.)

Ottawa Electric Ry.—Street car service was resumed recently over the new St. Patrick St. bridge, the smaller cars only being operated over it, the larger

Toronto & York Radial Ry.—We are officially advised that the company has built two sidings on its Metropolitan Division, one at Lansing, Ont., for the Bowden Lumber Co., and the second north of Richmond Hill, for the Loyal True Blue Orange Society's Orphanage.

The Windsor, Essex & Lake Shore Rapid Ry. is, we are officially advised, making some track changes in Kingsville, Ont. Orders have been given the Canadian Steel Foundries, Montreal, for the switch and crossing required. (Aug., pg. 434.)

Winnipeg Electric Ry.—A press report states that the company proposes to build only one track on Cornish Ave., between the Cornish baths and the Misericordia Hospital property. It is also stated that when final track arrangements are made, following the completion of the Maryland bridge, instead of two tracks curving on to Cornish Ave. and leading on to Sherbrooke St., one track will diverge on to Maryland St., as far as Wolseley Ave., meeting the Sherbrooke St. track at the intersection. A connecting link will be built from Cornish Ave. round the hospital property to Maryland St., and the onetrack line to Sherbrooke St. will branch into two tracks in front of the eastern portion of the hospital property. (May, pg. 268.)

Winnipeg Electric Ry.—The old tracks on Main St., between Sutherland and Selkirk Aves., are being taken up and replaced by new 85 lb. heavy type standard rails. The ties are being renewed, and special intersections are being put in at Dufferin and Main St., Euclid and Main St., Selkirk and Main St. Work on improving the tracks on Sherbrooke St. and Sargent Ave. is also being proceeded with. (May, pg. 268.)

Electric Railway Freight and Passenger Rates.

Cape Breton Electric Co.—C. C. Curtis, General Manager, told the Sydney, N.S., City Council, Sept. 15, that the issue of special tickets for workmen is being generally discarded.

Montreal Tramways Co.—L. J. Bourbonniere, financial secretary of Montreal Tramway Co.'s employees union, is reported to have stated before a board of conciliation recently that the fares paid on the electric railway in Montreal are sufficiently high to make it unnecessary for the company to reduce wages, and that he thought the company should make an effort to have fares reduced. (Montreal St. Car of the Montreal Tram-

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Ontario Hydro Electric Rys.—Essex Di-
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Windsor is providing \$457,500. (Aug.,

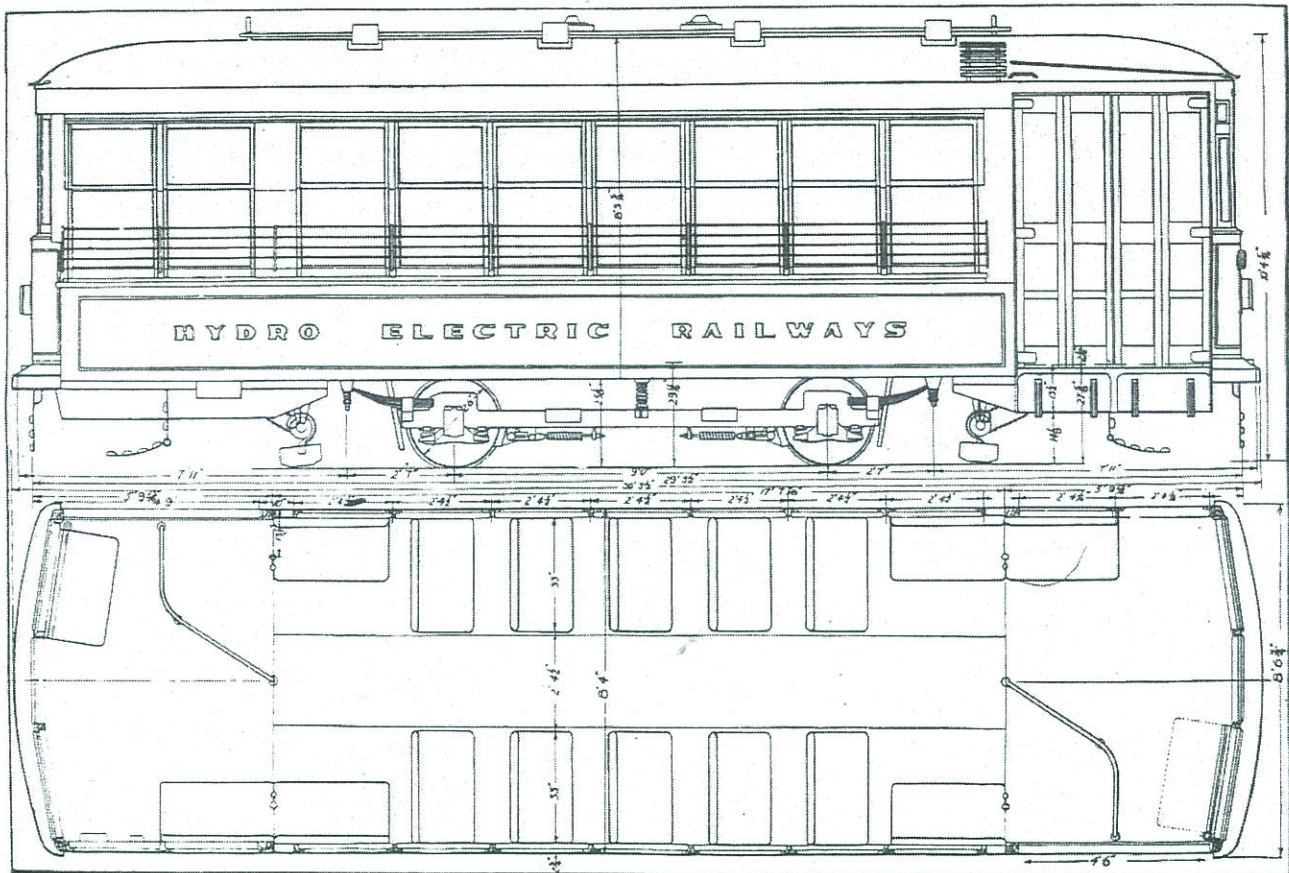
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Safety Cars for Hydro Electric Power Commission of Ontario.

The Hydro Electric Power Commission of Ontario has ordered 25 safety cars, 18 of which are for the Hydro Electric Rys. Essex Division (formerly the Sandwich, Windsor & Amherstburg Ry.), and

axles by helical gearing. Although many cars not much lighter than these are equipped with motors of about 25 h.p., it has been decided by the Commission's engineers that a motor with a some-

electrical manufacturing companies have developed and are making a 35 h.p. motor suitable for this type of car. The motor to be used has not yet been determined on, and the same applies to con-



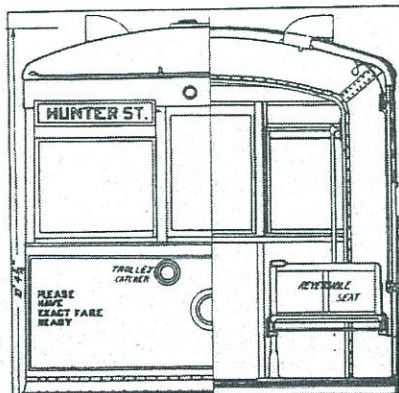
Safety Car, Ontario Hydro Electric Railways.

7 for Guelph Radial Ry. They will be of the single truck type, with the following dimensions:—

Length over all	30 ft. 3 3/4 in.
Length over end vestibule	29 ft. 3 1/4 in.
Length over end of car body	17 ft. 7 7/8 in.
Width over all	8 ft. 6 1/4 in.
Width over sheathing	8 ft. 4 in.
Height from rail to top of roof	10 ft. 4 5/16 in.
Height from under side sills to top of roof	8 ft. 3 3/16 in.
Height from top of rail to top of platform	27 7/8 in.
Height from top of rail to floor	29 11/16 in.

The weight of the car body will be about 11,000 lb., of the electrical and air brake equipment about 5,500 lb.; and of the truck, about 5,000 lb., making the total weight approximately 21,500 lb.

The truck will be of the Brill type 79-E-2, modified, the weight of the car being supported by elliptical springs at



trollers, rheostat, trolley bases, trolley poles, circuit breakers, lightning arrestor and other electrical equipment. The cars will be equipped with double end control, and two trolley poles will be used. The air brake equipment and has not been definitely decided on, but it may be stated that the cars are to be equipped with motor driven compressors, suspended from the underframing, the capacity of the compressor to be such that 15 cu. ft. of free air a minute can be compressed to a pressure of 90 lb. per sq. in. when operating at 600 volts. The air brake equipment will also include compressor governor, safety valves, brake valves equipped with sanding feature, at each end of car, and other standard parts. Two hand brakes will be added.

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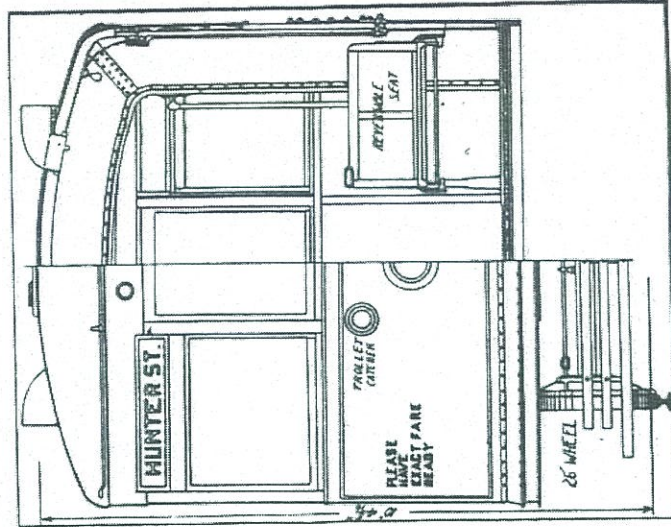
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Height from under side sills to top of roof	8 ft. 3 3/16 in.
Height from top of rail to top of platform	27 1/2 in.
Height from top of rail to floor	29 11/16 in.

The weight of the car body will be about 11,000 lb., of the electrical and air brake equipment about 5,500 lb.; and of the truck, about 5,000 lb., making the total weight approximately 21,500 lb.

The truck will be of the Brill type 79-E-2, modified, the weight of the car being supported by elliptical springs attached to the ends of the side members of the truck, and vertical coil springs extending from the under side of the underframing to the top of the side members of the truck. The two central coil springs will carry 25% of the weight of the car body, between them, the other 75% being distributed among the four elliptical springs at the truck ends. The journals will be 3 3/4 x 7 in., and the solid rolled steel wheels will be 26 in. diam. The truck wheel base will be 9 ft.

Two motors will be connected to the

Safety Car, Ontario Hydro Electric Railways.



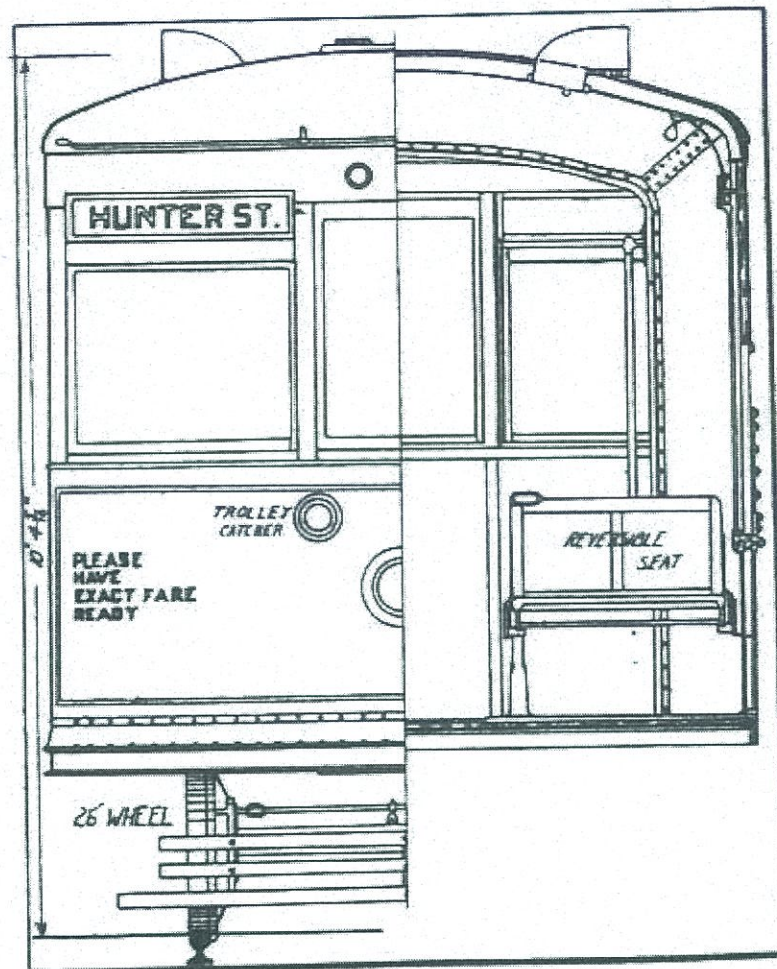
End Elevation, Safety Car, Ontario Hydro Electric Railways.

what higher rating will be more suitable to meet the climatic and other operating conditions, and for that reason motors of from 35 to 40 h.p. will be installed. The

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A feature of the car will be the pneumatically operated safety arrangement in connection with the opening and closing of the doors. The brake valves will be equipped so that after the brake has been applied, the movement of the brake valve handle to a further position will open the exit door, while movement of the handle a little further to another position will open the entry door. The apparatus will be so arranged that it will be impossible to start the car while either of the doors is open. The ad-

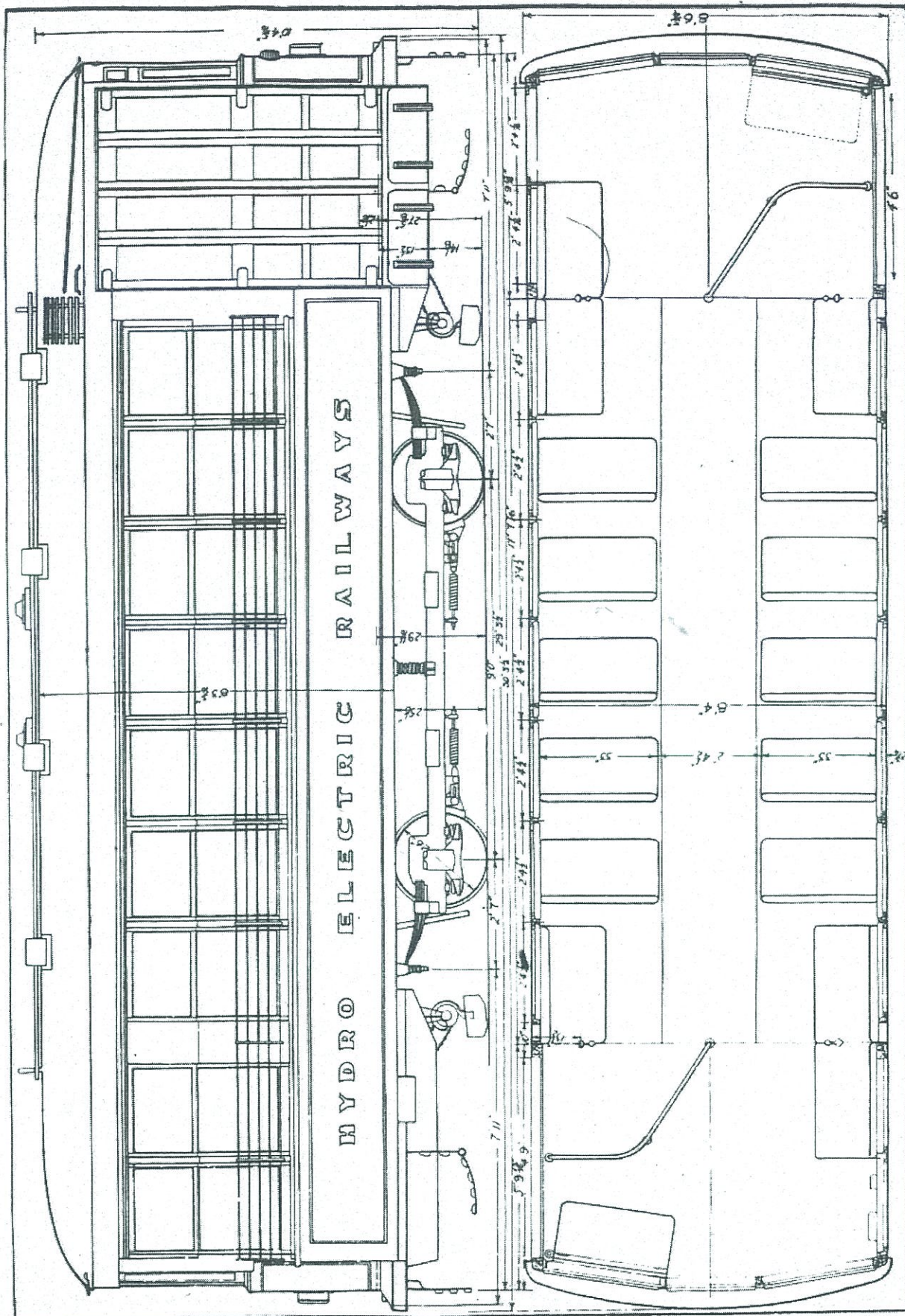
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December, 1921.

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new service was put in operation Nov.
16. (Nov., pg. 681.)

**Windsor, Essex & Lake Shore Rapid
Ry.**—A press report states that a site has
been bought on Oak St., Leamington,
Ont., for the erection of a freight termi-
nal building, and that a track will be
laid on Oak St. to reach the same. (Oct.,
pg. 548.)

pg. 257.)

Ontario Hydro Electric Rys., Essex Division.—We are officially advised that contracts have been let to Merlo, Merlo & Ray, Windsor, Ont., for double tracking 4,000 ft. on Wyandotte St., and to the Caldwell Sand & Gravel Co. for double tracking about 4,000 ft. on Ouellette Ave., both in Windsor, Ont. The rails will be 80 lb. A.S.C.E., 60 ft. lengths, laid on steel ties. The special work at the intersections will be L.S. Co. 7 in. 114 lb., section 480. (Nov., pg. 601.)

Winnipeg Electric Ry.—The city council has completed the erection of the new Maryland bridge, including the fill and its temporary surfacing, and it was expected that the railway would lay a temporary double track across it by Nov. 30. It is expected that it will take about a year for the fill to settle, when the permanent surfacing will be done and the permanent street railway tracks laid. The linking up of the tracks on each side of the bridge will enable an improvement to be made in the car service.

A press report states that the company's construction programme for 1922 includes the following:—Extension of Academy-Godfrey Ave. line to Assiniboine Park; extension of Notre Dame West line; connecting of St. Boniface line with Winnipeg via Provencher bridge; a line through the northwest section of the city and also one to serve the Scotia St. district. The Talbot Avenue extension in Elmwood and the double track subway at St. James will also, it is said, be done.

A new switch has been installed at Frederick and Hawthorne Sts., rendering it possible to operate an increased service on the St. Marys Road line. The

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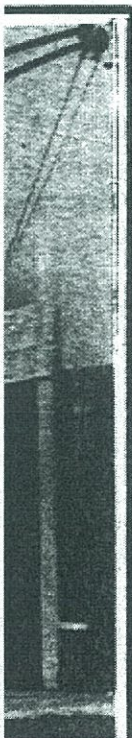
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The 25 safety cars ordered by the Hydro Electric Power Commission of Ontario, 18 of which are for the Hydro Electric Railways, Essex Division (formerly Sandwich, Windsor & Amherstburg Ry.), and seven for Guelph Radial Ry., were described fully in Canadian Railway and Marine World for November, with the exception of the electrical and air brake equipment, which had not then been definitely decided upon. As stated in that article, motors somewhat larger than the 25 h.p. motors used commonly in the past with cars only slightly lighter than those ordered by the Commission are considered more suitable to meet the climatic and other conditions under which the cars will operate, and that this view has been given effect to in placing the order for the electrical equipment is shown by the fact that the motors ordered are to be of 40 h.p. The electrical equipment has been ordered from the English Electric Co., the order including 2 D.K. 84, 40 h.p. ventilated type motors, 2 D.B. 1-form K4 controllers, and English Electric Co. circuit breakers for each car. The air brake equipment, to be supplied by Canadian Westinghouse Co., includes one compressor, with a capacity of 15 cu. ft. of free air a minute compressed to 90 lb. per sq. in. when operating at 600 volts, two brake valves, and other parts, for each car. The safety devices to be applied to the cars will also be supplied by Canadian Westinghouse Co. under the same contract as that covering the air brake equipment.

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The 25 safety cars ordered by the Hydro Electric Power Commission of Ontario, 18 of which are for the Hydro Electric Railways, Essex Division (formerly Sandwich, Windsor & Amherstburg Ry.), and seven for Guelph Radial Ry., were described fully in Canadian Railway and Marine World for November, with the exception of the electrical and air brake equipment, which had not then been definitely decided upon. As stated in that article, motors somewhat larger than the 25 h.p. motors used commonly in the past with cars only slightly lighter than those ordered by the Commission are considered more suitable to meet the climatic and other conditions under which the cars will operate, and that this view has been given effect to in placing the order for the electrical equipment is shown by the fact that the motors ordered are to be of 40 h.p. The electrical equipment has been ordered from the English Electric Co., the order including 2 D.K. 84, 40 h.p. ventilated type motors, 2 D.B. 1-form K4 controllers, and English Electric Co. circuit breakers for each car. The air brake equipment, to be supplied by Canadian Westinghouse Co., includes one compressor, with a capacity of 15 cu. ft. of free air a minute compressed to 90 lb. per sq. in. when operating at 600 volts, two brake valves, and other parts, for each car. The safety devices to be applied to the cars will also be supplied by Canadian Westinghouse Co. under the same contract as that covering the air brake equipment.



Toronto Transportation Commis-

1921

vantage of having the two halves of the folding door open separately is evident. Opening the exit door first, will enable the passengers to start making their exit before passengers waiting to board the car may start entering, and will thus afford a large degree of assistance to the car operator in regulating the traffic. Two air sanders, and a galvanized iron sand box will be included in the equipment, as will also two snow scrapers.

The underframing is to be of structural steel shapes and plates, the side sills to be continuous. The floor and side framing will include cross beams to transfer the floor load to the side trusses, and the end and vestibule framing have been designed with a view to special provision against the destructive effect of collisions. The side sheathing will be of $\frac{1}{8}$ in. steel plate, securely riveted to the side sills and side plates. The bottom flooring will be of $\frac{3}{4}$ in. white pine, and the surface flooring of $\frac{3}{4}$ x $3\frac{1}{4}$ in. maple, with two layers of tarpaper insulation between the pine and maple. The roof will be of the plain arch type and of composite construction. The roof boards will be of 9/16 in. poplar, and 8 oz. canvas will be used. The roof carline fur-rising will be of poplar, reinforced on each side by steel plate $\frac{1}{8}$ in. thick.

The interior will be finished in cherry or birch, with window sashes of similar finish, and all metallic fixtures will be of bronze. The head-lining will be of 3/16 in. agasote. The side windows will be equipped with pantasote curtains, the windows will be of plate glass $\frac{1}{8}$ in. thick. The vestibules at each end of the

car will be equipped with three drop windows; the vestibules will be sheathed outside with 3/32 in. sheet steel and inside with ash panel frames. The platform forms will be 2 1/16 in. below the level of the car floor. The folding vestibule doors will be of cherry or birch, operating as described above, and the doors will be fitted with a wired glass panel in the lower portion, and 3/16 in. plate glass in the upper portion.

Lighting will be by 46-watt lamps, arranged in lock sockets, and equipped with opal reflectors. There will be four ventilators on each side of the car, and heating will be by the use, on each car, of eight 1,000 watt Cutler-Hammer double coil truss plank electric heaters, wired four to a circuit, the heater wires running in conduit under the car body, or in metal moulding within the body, the heating system having thermostatic control. The cars will be equipped with dash type incandescent headlights at both ends.

The seating capacity will be 34. The accompanying floor plan shows the seating arrangement.

The cars, which were designed by the Hydro Electric Power Commission's engineers and are being built by Canadian Brill Co., Preston, Ont., will have all the latest improvements applicable to safety cars. The electrical and air brake equipment will be decided on in the near future, and it is expected that delivery of the cars will be commenced early in February.

The Winnipeg Electric Ry. is having five cars built from the same design.

Annual Report and Meeting.

ditions, they regret that no satisfactory agreement could be reached. In order to meet the present day conditions, it was then decided to reduce the wages of the employees by about 12½%, to take effect on Aug. 16, 1921. The employees requested a board of conciliation under the Lemieux Act, which was granted by the Minister of Labor. The company feeling, however, that the reduction of wages decided on was more than reasonable under the existing conditions, decided not to take part in the arbitration.

The sub-station at Cote St., referred to last year, was put in operation in the latter part of August; two units being completed. The other two units, it is expected, will be ready for operation in December.

At the annual meeting on Sept. 27 the shareholders passed a resolution stating that the company's service is the most practical and efficient of any organization of its kind in the world. The directors and officers were all re-elected as follows:—E. A. Robert, President; J. W. McConnell and Hon. G. G. Foster, K.C., Vice Presidents; Wm. C. Finley, P. J. McIntosh, W. G. Ross, J. M. McIntyre, Hon. J. M. Wilson and Hon. Lorne C. Webster. J. E. Hutcheson is General Manager, and Patrick Dubee, Secretary-Treasurer.

Change of Rule of Road in British Columbia.

As the time for making the change in the rule of the road from left to right is drawing nearer, plans are being discussed in Victoria and Vancouver, regarding the details. Work on the B.C. Electric Ry. rolling stock is going ahead

pg. 201.)

Ontario Hydro Electric Sys., Essex Division.—We are officially advised that contracts have been let to Merlo, Merlo & Ray, Windsor, Ont., for double tracking 4,000 ft. on Wyandotte St., and to the Caldwell Sand & Gravel Co. for double tracking about 4,000 ft. on Ouellette Ave., both in Windsor, Ont. The rails will be 80 lb. A.S.C.E., 60 ft. lengths, laid on steel ties. The special work at the intersections will be L.S. Co. 7 in. 114 lb., section 480. (Nov., pg. 601.)

December 1921

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December, 1921.

Betterments, Etc.

l by new service was put in operation Nov.
vice 16. (Nov., pg. 681.)

era- Windsor, Essex & Lake Shore Rapid
and Ry.—A press report states that a site has
also been bought on Oak St., Leamington,
iond Ont., for the erection of a freight termi-
nal building, and that a track will be
their laid on Oak St. to reach the same. (Oct.,
oved pg. 548.)
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December 1921)

Trackless Trolley Buses, Hydro Electric Power Commission of Ontario.

The Hydro Electric Power Commission of Ontario has placed in service four trackless trolley buses on its Hydro Radial Railway, Essex Division, formerly Sandwich, Windsor & Amherstburg Ry. The chief dimensions are as follows:—

Length overall	26 ft. 0 in.
Length of body	21 ft. 2 in.
Wheel base	16 ft. 6 in.
Width over side sheets at window sills	7 ft. 5 3/4 in.
Width overall	7 ft. 6 in.
Width inside	6 ft. 11 1/4 in.
Gauge, rear wheels	5 ft. 4 in.
Gauge, front wheels	5 ft. 10 in.
Height of floor at entrance	2 ft. 6 in.
Height from road to first step	1 ft. 6 in.
Height from step to floor	1 ft. 1 in.
Height from floor to ceiling at center	6 ft. 6 in.
Height from roadway to top of roof	9 ft. 8 in.
Post spacing	9 ft. 4 1/4 in.
Seat spacing	2 ft. 4 1/2 in.
Aisle	1 ft. 6 in.

The following description was prepared when the buses were ordered and was therefore written in the future tense.

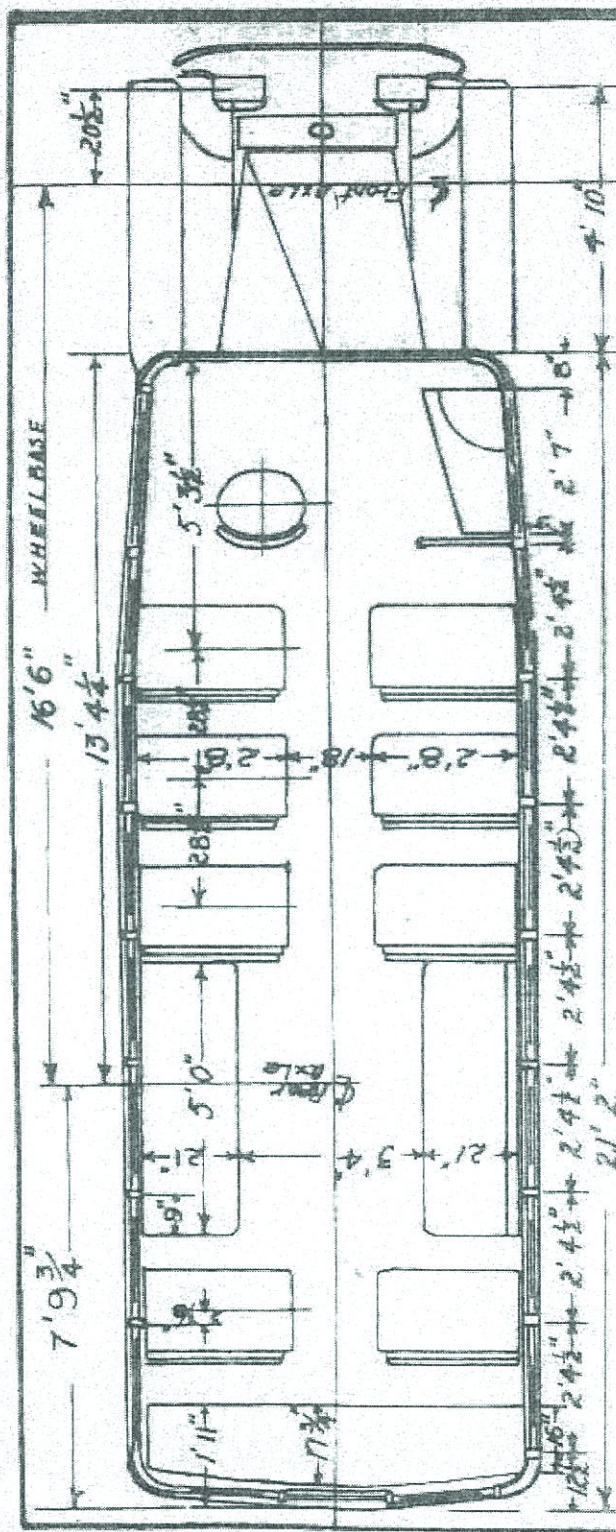
The frame will be built up of 6 x 3 x 1/4 in. heat treated alloy steel channels,

raise 13 in. In the rear there will be 3 windows, and the front of the body will be provided with a rain vision shield, 70 in. wide, with stationary green glass visor. At the right front corner will be a double folding door, with glazed glass in the upper panel and 3/16 in. wide glass in the lower panel, the door will be hung on ball bearing shaft and the leaves jointed with ball bearing butt hinges, and the closing edge will be provided with rubber tubing bumper. This door will be opened and closed by a manual operating device, located convenient to the driver. An emergency door will be provided at the left rear corner of the bus.

Electric motive equipment will consist of two 25 h.p. 600 volt motors, connected in tandem, through full universal joints between motors, and between motor and rear axle. The motors will be supported on frame channels, with cast steel brackets. The control equipment will consist of a foot pedal, operated

and 1 tail light, connected with accumulator in series with the main lighting circuit and so arranged that in case of failure of the trolley circuit the auxiliary lights will be automatically cut in.

The steering gear will be of the screw and nut type, with 22 in. wheel. There will be service brakes acting on the front and rear wheels, and an emergency brake, acting on the rear wheels only, of the internal expanding type. The wheels, of 36 in. diam., will be of the Sewell cushion type, and the tires, of the cushion type, will be single, 6 x 36 in. in front, and double, 6 x 36 in. in rear. The front springs, of semi elliptic type, will be 3 x 44 in., and the rear springs, also semi elliptic, will be 4 x 64 in. The rear axle, of 3 1/4 tons capacity, will have double brake drums, and the gear ratio will be 8.66 to 1. Drawbar pockets will be provided on each end of bus to permit coupling with standard safety cars by the use of an offset bar. Heating will be by Cutler-Hammer heaters. The



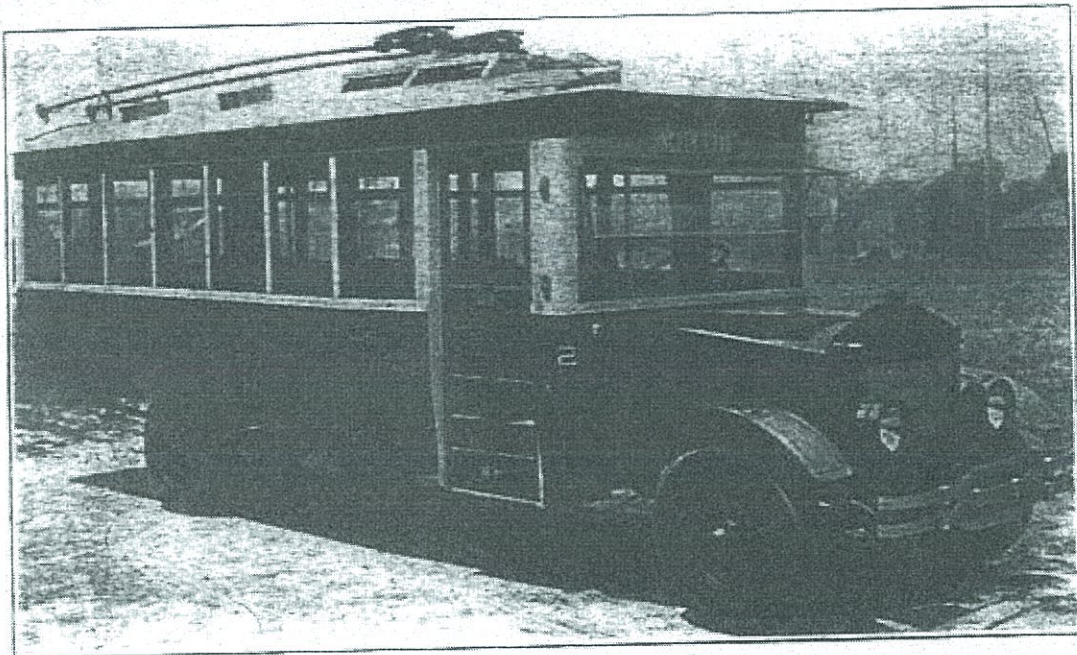
Trackless Trolley Bus. Ontario Hydro Elect

of riding and handling the buses are found to be very satisfactory, while operation is economical.

We are advised by the Commission's electric railway officials that while in many trackless trolley installations in the U.S. the intention is apparently to operate the buses as a permanent proposition on well defined routes, the Commission's idea in connection with the Windsor installation is to restrict the bus operation to the outlying portions of the city, and as the city builds up, to replace the bus routes with rail lines and move the bus routes farther out from the center of the city. The capital expenditure necessary for the installation of a trackless trolley route is practically confined to the cost of the poles and the wire placed in position, which makes such a route ideal for the supplying of transportation service in areas of low traffic density. Further, when it is desirable, on account of increased traffic density, to change the bus route to a more outlying portion of a city, and replace it with a rail line, the material used in the overhead construction can be removed with but little loss and a comparatively small labor cost. There is no doubt that the field of the trackless trol-

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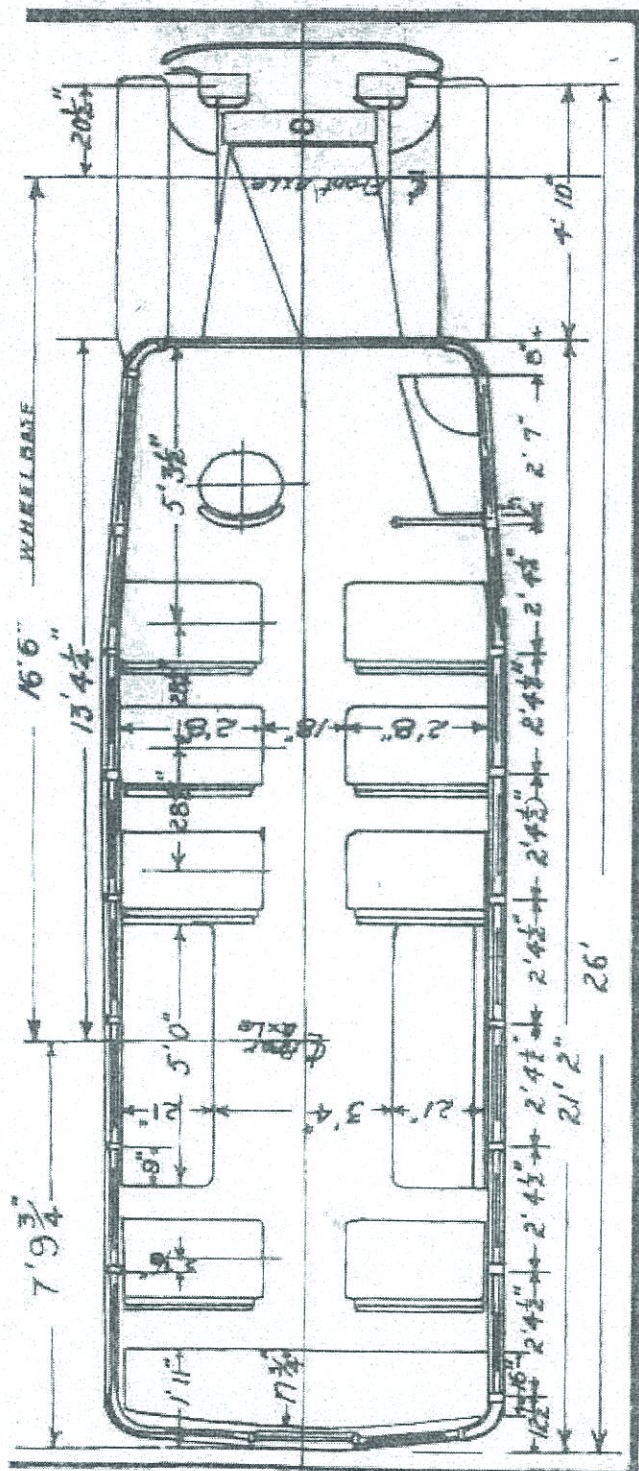
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Trackless Trolley Bus. Ontario Hydro Electric Power Commission, Windsor Line.

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Floor plan Trackless Trolley Bus, Hydro Electric Power Commission of Ontario.

with cross sills of drawn steel shapes, fitted between and riveted through the web of the channels and tied with flat plates extending from side sill to side sill. The cross sills will be of 3/16 in. material. The side sills will be of 3 x 2 x 1/2 angles. The frame will be held in square with large gussets riveted through the bottom flanges of the channel and cross sills. The body will be built as an integral part of the frame. The side posts will be riveted to the side sills, side sheets, belt rail and letter panel, and the window sills will be tightly fitted between posts and welded. The side sheets will be riveted to the side sills, side posts and belt rails. The side sheets will be of no. 16 aluminum, the belt rail of 1 1/2 x 1/2 in. steel, and window sill and letter panel of no. 18 sheet steel. The floor will be double, laid transversely, and securely nailed and screwed to side and center furring. The bottom layer of flooring will be of 7/16 in. tongue and groove material, and the top layer will be maple.

master controller, connected to motor controlled sequence switch, which will automatically control the operation of the magnetic line breaker and rheostat switches. The master controller will be so arranged as to give two running speeds through action of the foot pedal, making it unnecessary for the operator to notch up the controller. The equipment in detail will consist of two 25 h.p. motors; 1 set of 6 magnetically operated switches, mounted on panel; 1 foot operated master controller; 1 reverser; 1 double pole, magnetically operated line switch, with overload relay; 1 set of grid resistors, 30 5 in. alloy grids, 2 frames; 2 O-B trolley bases with swivel harps, 6 in. wheels and 18 in. poles; 1 double pole control snap switch, with fuses; 8 knuckle joint connectors; 1 set of rods for controller and reverser.

The lighting equipment will consist of 2 circuits of 5 lights each. On one circuit will be 2 headlights, 1 tail light, 1 step light and 1 body light. The other circuit will carry 5 body lights. In addition to the main lighting circuit there will be an O-B auxiliary lighting circuit, consisting of 2 side lights, 2 bod lights,

heating units will be wired in 4 circuits of 4 each and connected to thermostat. A Faraday high voltage car signal buzzer will be located at the front, and push buttons will be placed in the moulding near the center of the window space.

The interior of the bus will be finished in mahogany, and the side lining will be in mahogany veneer. The seating arrangement is shown by the accompanying plan, the total seating capacity being 29. The longitudinal seats will be placed over the rear wheel housing. All seats will have ventilated spring cushions, and will be upholstered and covered with cowhide, while the seat backs will be of the padded type. The operator's seat will be of the bucket type. There will be a station located near the front of the car to support the fare box, and another will be located between the longitudinal seats at the rear. An aluminum hand-rail will be placed at the step well, and a brass grab handle will be placed at the inside of the entrance door, at a convenient height for passengers entering. Window and door fittings will be of bronze, polished and lacquered. Four ventilators with registers will be placed

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this year.

Windsor, Essex & Lake Shore Rapid
Ry.—We are officially advised that it is
proposed to change the location of about
2,850 ft. of track in Windsor, Ont., from
the center to the side of a street which
is now being repaved, and that orders
have been given for the material. (July,
pg. 381.)

July 1920

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Hydro Electric Ry.—Essex Division.—

In connection with a recent press report that the Windsor City Council had authorized the expenditure of \$900,000 for the improvement of the local electric railway system, the council has passed a bylaw authorizing the issuing of debentures and the depositing of them with the Hydro Electric Power Commission of Ontario to the amount of \$457,500, this being Windsor's proportion of the total expenditure of \$900,000 being raised to pay the cost of extension, additional works and equipment of the Hydro Electric Ry.'s Essex Division, formerly the Sandwich, Windsor & Amherstburg Ry.

We are officially advised that the following improvements, etc., are proposed for this year by the Hydro Electric Power Commission of Ontario, which operates the lines:—Rehabilitating present rolling stock and buying 20 new cars. Installing additional rotary converters at Windsor and Amherstburg, with an automatic sub-station at Amherstburg. Double tracking Ouellette Ave., from London St. to Erie St., and repairing Ouelette Ave., from Erie St. to Tecumseh Road. Double tracking and repairing Wyandotte St., from Ouelette Ave. to Devonshire Road. Building loop at Ferry St. New car barn entrance layout on

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August 1921

WORLD

August, 1921.

Construction, Betterments, Etc.

t- London St. Double tracking London St.,
to from end of present double track to Mi-
of chigan Central Rd. bridge. Ballasting
th suburban lines, extending feeder system
r- and bonding.
es London & Port Stanley Ry.—The ter-

October, 1921.

Betterments, Etc.

York Toronto & York Radial Ry.—We are
d up officially advised that the company has
pav built two sidings on its Metropolitan Di-
vision, one at Lansing, Ont., for the
Bowden Lumber Co., and the second
Fort north of Richmond Hill, for the Loyal
True Blue Orange Society's Orphanage.

The Windsor, Essex & Lake Shore
Rapid Ry. is, we are officially advised,
making some track changes in Kings-
ville, Ont. Orders have been given the
Canadian Steel Foundries, Montreal, for
the switch and crossing required. (Aug.,
pg. 434.)

which Winnipeg Electric Ry.—A press report

October 1921

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1,000 a day. (Aug. 1921, p. 434.)
 Ontario Hydro Electric Ry.—Essex Di-
 vision.—Tenders were received by the
 Hydro Electric Power Commission of On-
 tario to Oct. 6 for building a double track
 electric railway on Ouelette Ave. and
 Wyandotte Ave., Windsor, Ont. This is
 a portion of the work proposed to be
 done on the old Sandwich, Windsor &
 Amherstburg Ry., out of the \$900,000 re-
 cently appropriated for the rehabilita-
 tion of the line, of which the City of
 Windsor is providing \$457,500. (Aug.
 pg. 434.)
 Quebec Ry., Light & Power Co. is, we
 will

October 1921

P549

e of \$3,000, exclusive of plant. (May, 1920,
- pg. 257.)

e Ontario Hydro Electric Rys., Essex Di-
- vision.—We are officially advised that
e contracts have been let to Merlo, Merlo
s & Ray, Windsor, Ont., for double track-
- ing 4,000 ft. on Wyandotte St., and to
the Caldwell Sand & Gravel Co. for dou-
s ble tracking about 4,000 ft. on Ouellette
f Ave., both in Windsor, Ont. The rails
r will be 80 lb. A.S.C.E., 60 ft. lengths,
laid on steel ties. The special work at
d the intersections will be L.S. Co. 7 in.
e 114 lb., section 480. (Nov., pg. 601.)

December 1921

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December, 1921.

atterments, Etc.

by new service was put in operation Nov.
ce 16. (Nov., pg. 681.)
a- Windsor, Essex & Lake Shore Rapid
nd Ry.—A press report states that a site has
so been bought on Oak St., Leamington,
nd Ont., for the erection of a freight termi-
nal building, and that a track will be
laid on Oak St. to reach the same. (Oct.,
re pg. 548.)
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Engineer.

Ontario Hydro Electric Sys., Essex Di-
vision.—Windsor, Ont., City Council has
under consideration a proposition to
widen Sandwich St., in connection with
which it is desired to have the electric
railway tracks removed from the north
side to the middle of the street.

A press report says that the building
of a second track on Ouellette Ave. and
Wyandotte Ave., Windsor, Ont., about
8,000 ft. in all, has been completed, and

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January 1922

THE WORLD

January, 1922.

s, Construction, Betterments, Etc.

Fort that cars are being operated on it.
Municipal Ry.—A section of

January 1922

206.)

Ontario Hydro Electric Railways, Essex Division.—We are officially advised that the Hydro Electric Power Commission of Ontario is endeavoring to complete the rebonding of a considerable portion of the old Sandwich, Windsor & Amherstburg Ry., and is erecting approximately six miles of overhead wire to be used by the electric trolley busses that have been ordered to serve settled sections of Walkerville and Windsor. The Commission is contemplating renewing the track construction on Ouellette St., Windsor, as well as making extensive betterments on short sections of track on various portions of the lines. Plans are under way for building a new substation in the vicinity of Canard River. (Feb., pg. 97.)

Ontario Ry.—We are officially advised

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CANADIAN RAILWAY AND MARINE WORK

Electric Railway Projects, Construction, Betterments, Etc.

The British Columbia Electric Ry. started work on June 6 in Vancouver on an extension of its Broadway West line from Trafalgar St. to Alma Road a distance of one mile. The new line will be double track and of permanent construction. A Y will be installed at the Alma Road end, connecting with the Sasamat line at that point. It is proposed to run Sasamat and Dunbar cars to the city by Broadway West, instead of by Fourth Ave. which has extremely heavy traffic. The line will cost \$75,000 and will be laid with 87-lb. rail, set in concrete on a crushed rock foundation. The city will pave the surface permanently. The extension is the result of negotiations with the city for the continuance of present rates of fare until a permanent franchise is agreed on or failing that until the B.C. Government appoints a board of arbitration or utilities commission. The fare permission is to go on until Dec. 15 when the permanent arrangement is to be settled one way or another. Part of the consideration for the extended fares was the building of the Broadway West extension.

Grand River Ry.—Lake Erie & Northern Ry.—A press report states that plans prepared in the C.P.R. Chief Engineer's office in Montreal have been received in Galt, Ont., for the station building proposed to be built on Main St., there, for the two railways (May, pg. 258).

Hamilton Radial Ry.—The Strauss trunnion bascule bridge over the canal at Burlington Beach, Ont., which was opened for traffic recently, has already

removal of the most southerly track on this street, the proposal being to operate this as a single track line with a passing track in the vicinity of the waterworks plant, and singling the existing double track on Victoria Road, near Sandwich St., thereby providing passing accommodation at this point, and eliminating one track on the turnout from Sandwich St. to Victoria Road. It was expected to have the work on Ouellette St. in hand before June 30, and to start the Sandwich St. west work in July. The Commission also has in contemplation the construction of a single track on Sandwich St. west, between Ouellette Ave. and Ferry St., Windsor. (June, pg. 315.)

Ottawa Electric Ry.—A letter from Major F. D. Burpee, Manager, Ottawa Electric Ry. Co., was received by the Hull, Que., City Council, June 5, intimating that the company would expect to receive a new franchise from the city during the year. The company proposes to lay a loop at the terminus in Hull, which would enable larger cars to be used and a better service to be given. In this connection the council was asked to join with the company in applying to the Board of Railway Commissioners for permission to cross the Hull Electric Co's tracks at Bridge St.

Windsor, Essex & Lake Shore Rapid Ry.—We are officially advised that the company proposes to build a siding of about 800 ft. into its terminal at Leamington, Ont.; and to lay about 4,750 ft. of paving in Kingsville, Ont. It is in the market for 3,000 no. 1 white oak ties and 100 tons of 85 lb. rails, C.P.R. section.

July 1922

will be made. (March, 1921, pg. 107.)

Ontario Hydro Electric Sys.—Essex Division—The Essex County Council is reported to have granted permission for the construction of a spur from the main line to a dock at Petit Cote, Windsor, Ont. (July, pg. 375.)

August 1922
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(July, pg. 381.)

Hydro Electric Ry.—Essex Division.—

In connection with a recent press report that the Windsor City Council had authorized the expenditure of \$900,000 for the improvement of the local electric railway system, the council has passed a bylaw authorizing the issuing of debentures and the depositing of them with the Hydro Electric Power Commission of Ontario to the amount of \$457,500, this being Windsor's proportion of the total expenditure of \$900,000 being raised to pay the cost of extension, additional works and equipment of the Hydro Electric Ry.'s Essex Division, formerly the Sandwich, Windsor & Amherstburg Ry.

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August

1922

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Safety Cars for Ontario Hydro Electric Rys., Essex Division.

The Hydro Electric Power Commission of Ontario has ordered 4 one-man-two-man double truck safety cars for the Ontario Hydro Electric Railways, Essex Division. They will be equipped for double end operation, and will have the following dimensions:

Length over all.....	43 ft. 9 in.
Length over vestibules.....	42 ft. 6 in.
Length over bulkheads.....	28 ft. 9 in.
Width over side sills.....	8 ft. 2 13/16 in.
Width over all.....	8 ft. 5 in.
Height, rail to top of floor.....	2 ft. 7 1/4 in.
Height, rail to top of roof.....	10 ft. 0 1/2 in.
Post spacing.....	2 ft. 6 in.
Truck centers.....	20 ft.
Passenger seating capacity.....	52
Weight.....	34,000 lb.
Wheel diam.	26 in.

As the designation of the cars indicates, they will be suitable for one or two-man operation, and it is the intention to run them as two-man cars during rush hours and as one-man cars at other times. They will be equipped with 4 double doors, one at each corner, and a unique feature will be that the door operation will not only be interlocked with the control apparatus, but also with the brakes, so that when the doors are open, movement of the car will be prevented, not only by the impossibility of getting current to the motors, but also by the brakes being applied. Two trolley poles will be applied. The cars have been ordered from St. Louis Car Co., St. Louis, Missouri. The air brake and electrical apparatus will be supplied by Canadian General Electric Co. and the trucks by Taylor Electric Truck Co., Troy, N.Y. The cars are to be used in local service in Windsor, Walkerville and Sandwich, Ont.

February
1923

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Windsor, Essex and Lake Shore Rapid Ry. Organization Changes.

A. Eastman, Vice President and General Manager, Windsor, Essex & Lake Shore Rapid Ry., who has desired for some time to give up the General Managership, resigned it Oct. 31, 1922, but it was only accepted recently. He remains a director, and as Vice President, and will go into business in Windsor, Ont., in the near future to handle financial investments, real estate, insurance, valuations and adjustment of insurance claims.

T. P. Pinckard, President, has assumed executive charge of the company's affairs, with office at Windsor. He is Manager of the Dominion Traction & Lighting Co., which is a holding company for the Windsor, Essex & Lake Shore Rapid Ry. Co., and the Windsor Gas Co. He has announced the following organization, with offices at Kingsville:—

C. P. Cooper, heretofore Superintendent, to be General Superintendent, in charge of all departments, and reporting to President.

E. S. Hughes, heretofore Traffic Manager, to be Assistant General Superintendent, respecting all employees and departments, also Traffic Manager.

H. F. Macdonald, Auditor, continues in that position.

George C. Graham, heretofore Superintendent of Shops and Rolling Equipment, to be Superintendent of Power and Equipment, in charge of power house, shops and rolling stock.

C. G. Loop, heretofore Roadmaster, to be Superintendent of Way and Structures, in charge of tracks, roadway, overhead lines and gravel pit.

ams Fort William Municipal Railway Mat-
ters.—A. B. Ingram, Vice Chairman,
and Municipal Board.

April

1923

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Hydro Electric Rys., Essex Division.—
A press' report states that the Walker-
ville, Ont., Town Council has approved
a recommendation by A. F. McGill,
Superintendent, for the construction of
a Y track on Walker Road. (Dec., 1922,
pg. 633.)

Walker Road. S. R. Kitchen.

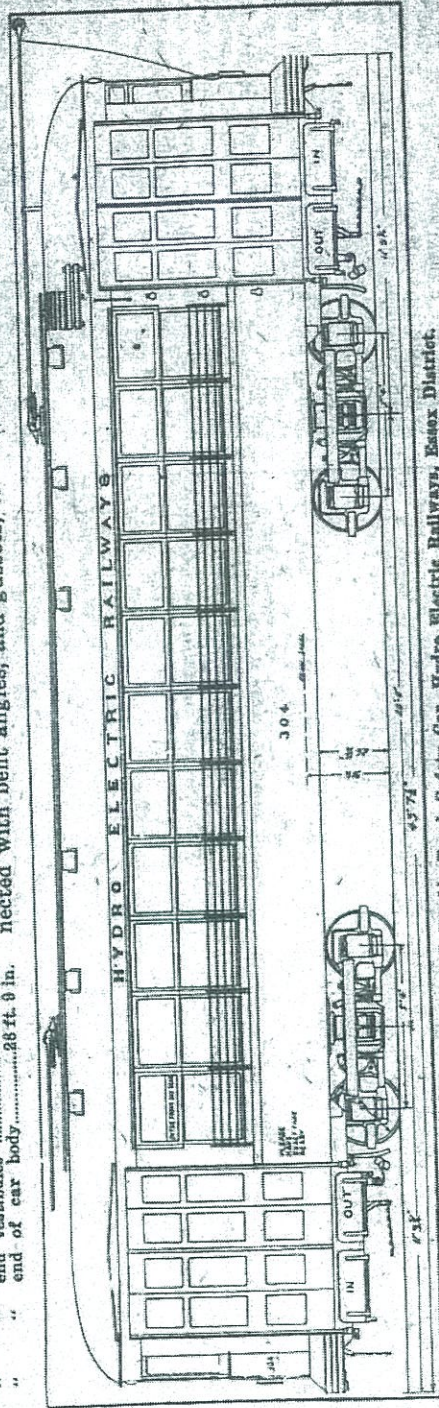
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MAY 1923

Double End Safety Cars, Hydro Electric Railways, Essex District.

The Hydro Electric Power Commission of Ontario Railways Department has ordered for the Hydro Electric Railways, Essex District, 4 double end, double truck, one-man, two-man safety cars, of steel construction, an elevation of one of which is given herewith. They will have the following general dimensions:

Length over all.....	48 ft. 7 1/2 in.
" " end vestibules.....	42 ft. 6 in.
" " end of car body.....	28 ft. 9 in.



Double End, Double Truck Safety Car, Hydro Electric Railways, Essex District.

Width over all.....	8 ft. 5 in.
Height from top of rail to top of roof.....	8 ft. 3 in.
Height from rail to top of floor in body.....	10 ft. 4 in.
Seat spacing.....	2 ft. 7 1/16 in.
Truck centers.....	2 ft. 6 in.
Approximate weight, car body.....	20,000 lb.
" " control equipment.....	1,200 lb.
" " motors, gears and cases.....	4,000 lb.
" " trucks.....	10,000 lb.
" " total.....	35,200 lb.

The car underframing will include side sills of 3 x 3 x 5/16 in. angles, extending in one piece from body corner post to vestibule corner post, and the platform side sills, 6 in. 15 lb. channels, will be connected to form an extension of the side sills, the connection being proportioned so as to develop the full strength of the side and platform sills. The cross sills will be 3 in. 6 lb. channels, rolled steel, and will be connected to the side sills with angle connections and gussets. The bolsters, of built up type, with 12 x 1/2 in. top plate, and 12 x 1/2 in. bottom

plate, will have the top and bottom cover plates securely riveted to the diaphragms and malleable iron bolster center braces. The bumpers, of 5 in. 6.5 lb. channels, will be bent to shape, and will extend the full width of the car, and around the sides, so as to form protection for the corner posts, and diagonal braces, extending from the side sills and platform side sills to the bumpers, will be connected with bent angles, and gussets, to

bumpers and sills, and bolted to the crown.

The side framing will include posts, 1 1/2 x 1 1/2 x 3/16 in., rolled steel T section members, extending from side sill to side sill, bent to form carlines, and riveted to the side sills, side sheets, belt rail and letter board. The belt rail, of 3 x 1/2 in. material, will extend in one continuous piece from the body corner post to the vestibule corner post, and the letter board, of 3/32 in. sheet steel, will have its lower edge set off to form a drip. The letter board will be spliced on the posts, the splices being soldered and filed, so as to present a smooth even surface. The vestibule corner posts will be of ash.

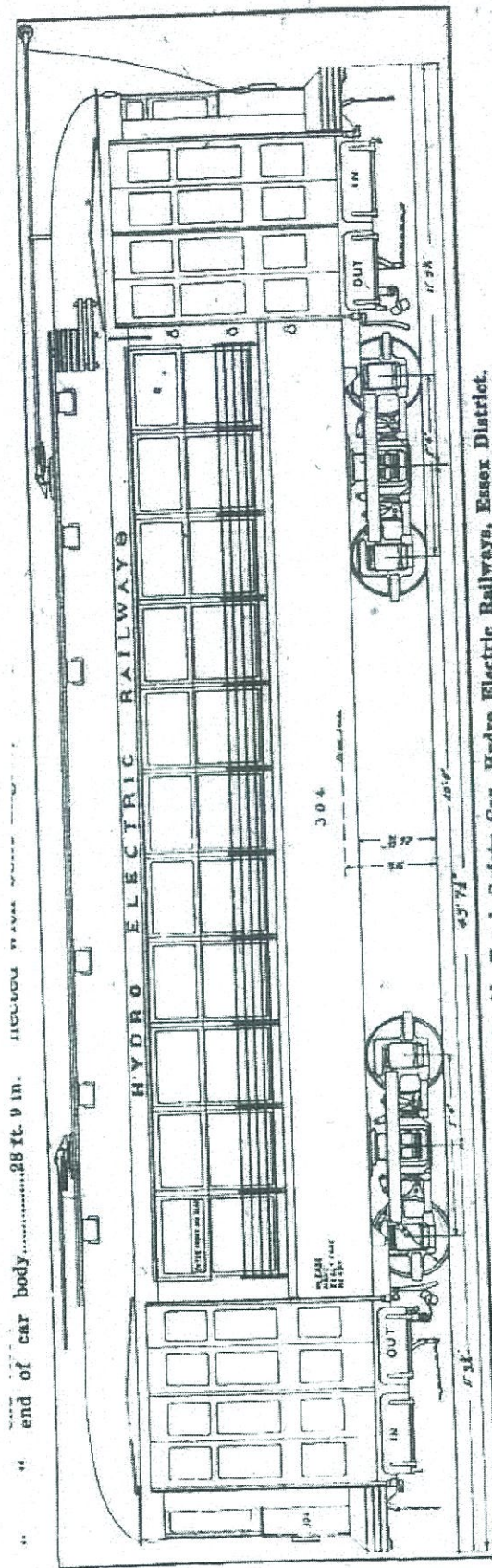
The roof, to be built in place on the car, will have 2 in. and g. grooved poplar roof boards, 7/16 in. thick, covered with no. 8, 18 oz. canvas.

The floor will be laid in 2 courses, the bottom one to be of 7/16 in. t. and g. white pine, nailed and screwed to the floor supports. The top floor will be of 13/16 in. maple, grooved in the aisle to

form a floor mat. Between the 2 floor courses will be 2 layers of waterproof paper. The floor will be framed to provide trap doors over the motors. In the aisle, at each end of the car, the floor will be ramped 1 in. and on the platform it will be ramped 1 in. to both sides of the car. The top floor will be fastened in place with screws.

The vestibules and door arrangement will be a notable feature. Each vestibule

will be fitted with 2 pair of folding doors, this new arrangement, with its wide door opening area, providing for quick loading and unloading of passengers. Each pair of doors will be hung on ball bearing shafts, and joined with ball bearing hinges, and will be arranged to operate independently, from door operating engines supplied in connection with the air brake equipment, and located in a pocket over the doors. The steps will be arranged to operate in conjunction with the doors and the door and step selector valve, a portion of the brake valve. The steps will be of 1 1/4 in. ash, supported on ball bearing hinges, and provided with counterbalance springs. The edge of each door will have a rubber strip, extending in a loop, 2 in. wide, and screwed securely to each side of the door. The front dash of the vestibules will be in 3 pieces, one piece extending from corner post to center post, one from center post to center post, and the third from center post to corner post. The inside lining of



Double End, Double Truck Safety Car, Hydro Electric Railways, Essex District.

will be fitted with 2 pair of folding doors,

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Track Construction, Hydro Electric Ry., Essex District.

The Hydro Electric Power Commission of Ontario received tenders to May 5, for the construction of 26,985 single track feet, of main track, and 475 feet of siding, to be located as follows: In Walkerville, 1,925 ft. of single track, on Sandwich St., from the Canadian National Ry. bridge to the city's eastern limits; in Ford City, 3,250 ft. of single track, from the eastern limits of Walkerville to Strabane Ave.; in Windsor, 3,740 ft. of double track on Erie St., from Ouelette Ave. to Parent Ave. (7,480 single track ft.); in Windsor, 2,540 ft. of double track on Ottawa St. from Parent Ave. to Lincoln Road (5,080 single track feet); in Windsor, 2,100 ft. of double track, on Parent Ave., from Erie St. to Ottawa St. (4,200 single track ft.); in Sandwich, 2,500 ft. of double track, on London St., from Bridge St. to Soper St. (5,000 single track feet); in Windsor, a passing siding, 475 ft. long, on Ouelette Ave., near Maple Ave. The work will be under the direction of T. U. Fairlie, Engineer, Railways Department, Hydro Electric Power Commission of Ontario.

The accompanying plan shows longitudinal and cross sections of the double track to be built, and the single track will be of the same general character. The rails to be used will be 80 lb. A.S.

Mainly About Electric Railway People.

G. H. Dahl, heretofore statistician, Winnipeg Electric Ry., has been appointed as assistant to the Vice President and General Manager.

Alphonse Dubee, who was in the service of Montreal Tramways Co. and its predecessor for 51 years, latterly as chief clerk at the St. Henri depot, died at Montreal, April 25, aged 80. Patrick Dubee, Secretary-Treasurer of the company, is a son. The funeral at Cote des Neiges, was largely attended by officials and employees of the company.

G. Gordon Gale, M.Sc., Vice President and General Manager, Hull Electric Co., has been elected Vice President, Rowal Ottawa Golf Club.

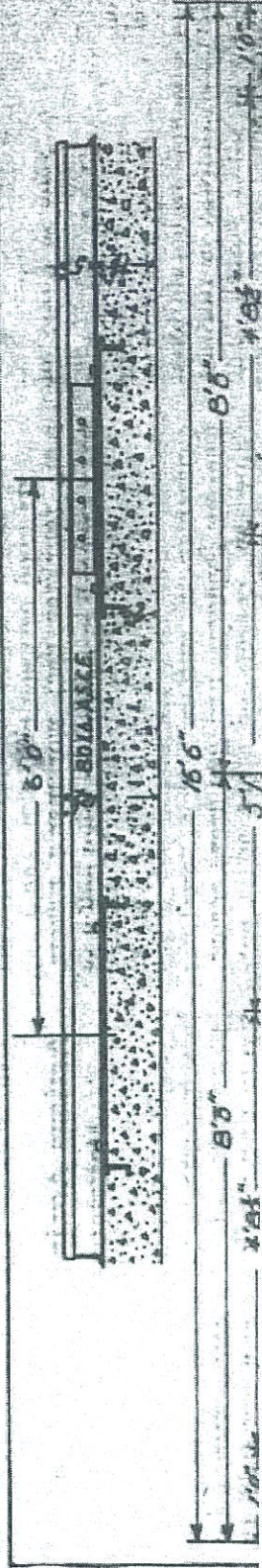
L. L. Price, heretofore in charge of appliance department, Winnipeg Electric Ry., has been appointed Superintendent of Distribution and Sales.

Julian Cleveland Smith, who has been elected President, Quebec Ry., Light, Heat and Power Co., was born at Elmira, N.Y., Oct. 7, 1878, and was educated at Buffalo, N.Y., and Cornell University. He began his business career as draftsman with W. C. Johnston, consulting engineer, Niagara Falls, N.Y., and two years later was appointed his assistant engineer at Shawinigan Falls, Que.

Nova Scotia Power & Tramway Co.'s Annual Report.

The directors' report for the calendar year 1921, issued recently, deals with the company's electric railway, light and power, gas, and steam heating departments. Its financial position improved greatly during the year. While gross earnings continued to decline, the decline was much more than offset by rapid decrease in operating expenses, the net result proving far more satisfactory than in 1921. The cost of material decreased to some extent, and wages were reduced about 4% in August. The resumption of preferred dividends is, however, not yet in sight, and there is immediate prospect of being able to finance the cumulative preferred dividends not paid to date, amounting to \$2 a share.

The tramways department's gross earnings were 11.8% below 1921, due entirely to business depression, and the increased use of automobiles. The number of passengers carried, including transfers, was 10,897,160, compared with 12,148,197 in 1921. To meet this situation, service was curtailed to some extent. The car mileage decreased 1,738,439, from 1,860,842 in 1921. The total amount received from tramway passengers was \$598,914.92. They use the 6½c ticket almost exclusively. The cost of tramway service, exclusive



TRACK TO BE BUILT, and the same will be of the same general character. The rails to be used will be 80 lb. A.S.



Longitudinal and cross sections standard double track construction, Hydro Electric Railways, Essex District.

C.E., in 60 ft. lengths. Joints will be welded, and International steel twin ties will be used. Dimensions of track allowance, distance between tracks, depth of foundation, etc., are shown in the plan.

The double track construction on Erie St., Windsor, will enable street car service to replace the trackless trolley service which has been given for some little time, the change being considered desirable due to increasing passenger traffic density. A new trackless trolley route, $\frac{1}{4}$ mile long, will be established on Tecumseh Road. In the Erie St. service the trolley bus has fulfilled what promises to become one of its chief functions, i.e., that of providing a growing district with adequate transportation until such time as traffic density warrants the construction of an electric railway line.

Winnipeg, Selkirk and Lake Winnipeg Ry., Winnipeg Electric Ry. subsidiary, is reported to be discussing with the Selkirk, Man. Town Council, a proposition for leasing Selkirk Park, and operating it in conjunction with the railway.

A Niagara, St. Catharines and Toronto Ry. car was struck by lightning on May 20, while between St. Catharines and Port Dalhousie, but no damage was done, except to the motor.

Montreal & Southern Counties Ry. is in the market for 1 motor baggage car and 2 suburban passenger trailer cars.

years later was appointed his assistant engineer at Shawinigan Falls, Que.

the 6% ticket almost exclusively; the cost of tramway service, exclusive of

From 1908 to 1909 he was Superintendent, Shawinigan Water and Power Co., Montreal; 1906 to 1909, General Superintendent, same company; 1909 to 1913, General Superintendent and Chief Engineer, same company; and from 1913 he has been Vice President and General Manager, same company, and executive of all its subsidiary companies. Among other positions he holds are:—President, Public Service Corporation, Québec, Que.; Canada Carbide Co., Canadian Electro Products Co., and North Shore Power Co., Three Rivers, Que.; Vice President, Dominion Engineering Works Ltd.; and director, Dominion Bridge Co. W. N. Smith, Consulting Engineer, Winnipeg Electric Ry. has been presented with one of the two Plummer gold medals, for the best papers of 1921 and 1922, on a metallurgical or chemical subject.

The Montreal Tramways Co., was sued in the Québec Supreme Court, Montreal, recently by the British America Insurance Co., British America Underwriters' Agency, to recover \$137.50 for damage alleged to have been done by one of the company's electric cars to an automobile insured by the agency. Rt. Justice MacLennan found that the accident to the automobile was caused by the improper and negligent driving of its chauffeur and dismissed the action with cost.

taxes, necessary reserves, and return on the property dedicated to this service, was \$400,870.92. Of this amount 69.3% was expended in wages and salaries. The cost of conducting transportation was \$253,000, of repairs \$127,000 and other expenses were \$80,000. The company was able to effect a very great saving in operating expenses, with the result that the net earnings before taxes were 27.5% greater than in 1921. The number of kilowatt hours used by this department was 3,004,725, and the car miles operated, 1,738,439.

The Hydro Electric Railways Investigation.—The Premier of Ontario in answering questions as to the cost of government commissions stated in the Legislature, recently that the investigation into the Hydro Electric Radial Railways proposed by Mr. Justice Sutherland and other Commissioners cost \$162,705.41.

The Hydro Electric Power Commission of Ontario has issued passes for distribution to blind persons resident in the province, enabling them to ride free on all cars on railways operated by the Commission. Under certain conditions, these passes will be issued to persons of low grade partial sight. The lines upon which the passes are available are the Hydro Electric Ry., Toronto and York District and Essex District and Guelph Radial Ry.

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ing that it does not involve any part of the C.N.R.

One-man cars on Hydro Electric Railways, Essex District.—A recent Windsor, Ont., press report stated that one-man car operation was to be discontinued on the Hydro Electric Railways, Essex District. We are officially advised that this report is incorrect. In addition to the freight and general equipment, there are on the Essex District, 17 one-man safety cars; 10 single truck, two-man cars, and 20 double truck two-man cars. The 17 safety cars will continue to be operated by one man, and in addition, the four one-man-two-man cars ordered from the St. Louis Car Co., and described in a preceding issue of Canadian Railway and Marine World, delivery of which was expected during July, will be operated as one-man cars except during rush hours when two men will be used. One-man car operation on the Essex District is reported as satisfactory in every way.

August 1923

done during this year in welding the rail joints. (Oct., pg. 492.)

Hydro Electric Railways.—Essex District.—An extension of the street railway tracks in the southwestern districts of Windsor and Walkerville, Ont., including the relaying of the pavement on Erie St., will, a press report states, be opened for traffic Nov. 1. (May, pg. 238.)

New Brunswick Power Co.—Consider-

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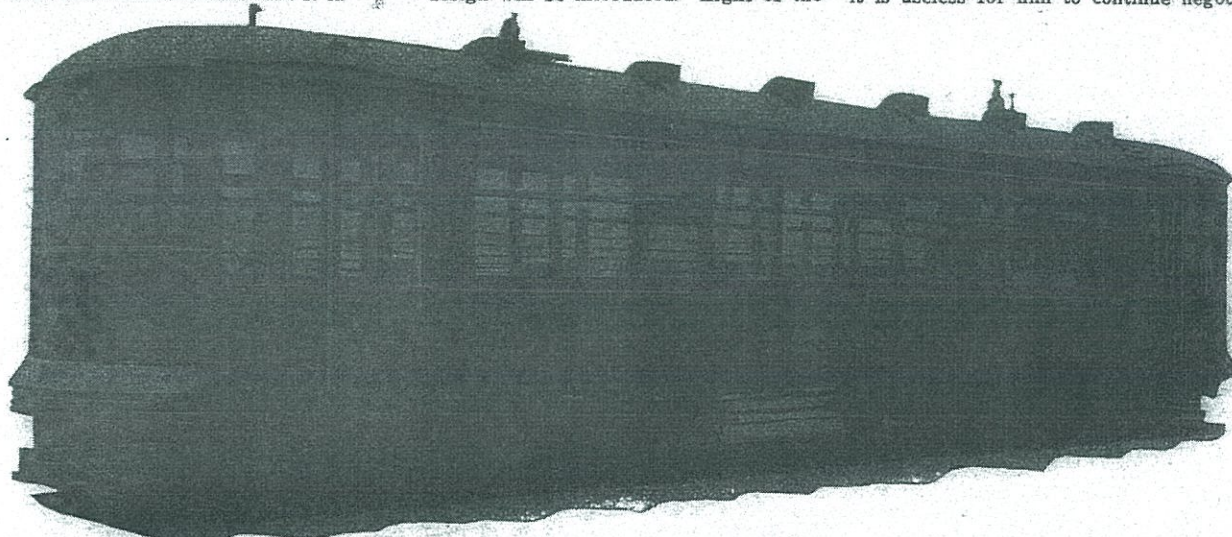
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Double Truck Safety Cars Ontario Hydro Electric Railways.

The 4 double truck 1-man, 2-man, safety cars ordered by the Hydro Electric Power Commission of Ontario for the Hydro Electric Railways, Essex District, were described in Canadian Railway and Marine World for May, pg. 235, and an elevation of one of them was given. The accompanying illustration shows one of the completed cars, 4 of which were delivered in Windsor on July 23, and are being operated in cross town service, using 2 men in rush hours and 1 man at other times. In 2-man operation both conductor and motorman collect fares, which provides 2 entrances and 2 exits. This arrangement, we are officially advised, results in speeding up the service to an appreciable extent. The car's principal dimensions are as follows:

Length over all	43 ft. 7½ in.
Length over vestibules	42 ft. 6 in.
Length over end of car body	28 ft. 9 in.
Width over all	8 ft. 5 in.
Width over sheathing	8 ft. 3 in.
Height, top of rail to top of roof	10 ft. ¾ in.
Seat spacing	2 ft. 6 in.
Post spacing	2 ft. 6 in.
Truck centers	20 ft.



Double Truck Safety Car, Ontario Hydro Electric Railways.

Approximate weight—	
Car body	20,000 lb.
Control equipment	1,200 lb.
Air brake equipment	1,050 lb.
Motors, gears and cases	4,000 lb.
Trucks	10,000 lb.
Total	36,250 lb.

The electrical equipment includes General Electric type K control apparatus, and four G. E. no. 264 motors of 25 h.p. each. The cars were built by the St. Louis Car Co., St. Louis, Mo.

The Hydro-Electric Power Commission of Ontario has ordered 12 double truck, double end, safety cars, designed to be operated by a one or two man crew, either singly or in trains of 2 or 3 cars. They will be equipped with complete safety appliances. There will be 4 pairs of double doors on each car; in one man operation, only one pair of doors will be used, but a feature of the safety equipment will be that in cases of emergency, when the car is in one-man operation, one of the rear pair of double doors may be opened by hand for the exit of passengers, after an emergency application of the brakes or if the motorman's hand is removed from the controller. The electrical equipment will include 4 G.E. 265-A motors of 35 h.p., per car.

The multiple unit electrical control equipment and the air brake equipment, together with the National Pneumatic Co. door engines and the balance of the safety equipment, will be supplied by Canadian Westinghouse Co. The trucks will be equipped with 26-in. rolled steel wheels with standard A.E.R.E.A. inter-urban service flange. These cars will be much the same design as the 4 ordered last spring from the St. Louis Car Co., which were described fully in Canadian Railway and Marine World for May, and of which additional particulars are given above with accompanying illustration. The chief differences are that the motors of the new cars will be 35 h.p. instead of 25, that the new cars will be equipped with multiple unit apparatus, to provide for train operation, instead of being suitable for only one-man operation, as are the original 4 cars, and that the new cars will have with automatic drawbars, which the others have not. Minor changes in frame and body design will be introduced. Eight of the

London Street Railway Situation.

Although the London, Ont., City Council appointed Sir Adam Beck recently to negotiate with the London Street Ry. Co. for terms upon which its property might be acquired by the city, in order that a bylaw may be submitted to the voters at the municipal elections in January, the Mayor announced Sept. 11, that he was approaching the company's President with a proposition for an extension of the present franchise on the basis of a reduction in fares. His suggestion is that the fare be 5c. cash, with 6 regular, or 8 limited, tickets for 25c. The President is reported to have suggested in an interview that two questions be submitted to the voters in January, the first as to whether the citizens desire to take over the line, and the second, as to whether by arbitration or by agreement. A number of the aldermen opposed any extension.

A London press dispatch of Sept. 22, stated that Sir Adam Beck feels that unless co-operation from Mayor Wenige and certain aldermen is forthcoming, it is useless for him to continue negot-

cars are to be operated on the Essex District, and the remaining 4 on the Toronto and York District. The car bodies have been ordered from Ottawa Mfg. Co., Ottawa; the trucks from Taylor Electric Truck Co., and the motors, electrical apparatus and air-brake equipment as stated above. Delivery is expected to be made beginning Dec. 1.

Toronto-Guelph Service—A Toronto press report of Sept. 6 stated that a much more frequent service would be provided by the T.S.R. between Toronto and Guelph in the near future. We are advised that this is incorrect, and that the situation is that studies are being made with a view to re-arranging the service and possibly adding more cars at a later date. To increase the frequency of service, additional equipment would have to be bought, at least to the extent of providing car bodies for the spare motors and trucks on hand.

The Kitchener, Ont., Light Commissioners, having taken over the Waterloo-Wellington Ry., propose to buy several new street cars, also material for a complete new system of overhead trolley and feeder wire.

ations with the company for the purchase of the system. He is reported to have said: "I cannot see any object in continuing, and in spending money on appraisal with the present rate of co-operation. I cannot make progress under such conditions, nor can I justify continuing negotiations. Encouragement of the railway in spending money on second hand equipment and inferior construction work is adding enormously to the cost of the railway to the city without compensating value. I have conducted friendly negotiations for the purchase of over 90 properties, and in every case have been able to come to a satisfactory settlement, but in these cases I have always had the best of co-operation."

Fort William and Port Arthur Street Railways—A Fort William press dispatch of Sept. 19 stated that the city's utilities committee had passed a resolution asking for a meeting with Port Arthur Public Utilities Commission, to see if the street railway disagreement could be settled, so that cars might run through, instead of each city turning its cars at the boundary, as at present.

rail joints. (Oct., pg. 492.)

Hydro Electric Railways.—Essex District.—An extension of the street railway tracks in the southwestern districts of Windsor and Walkerville, Ont., including the relaying of the pavement on Erie St., will, a press report states, be opened for traffic Nov. 1. (May, pg. 238.)

New Brunswick Power Co.—Consider-

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Electric Railway Projects, Constr

British Columbia Electric Ry.—The new station building at Davie and Seymour streets having been completed, and the track alterations made, the trains on the Lulu Island line were operated into it early in December. (Dec. 1923, pg. 600.)

The Fort William Municipal Ry. has electrified the portion of the Canadian National Rys. James St. track between Frederica and Montreal Sts. to give better connection to Neelbing terminal and the Mission. The C.N.R. has abandoned the James St. track as far as through traffic is concerned and now uses it for switching only.

Grand River Ry.—The Board of Railway Commissioners has authorized the revision of the main line in Waterloo, Ont., the crossing of Erb St., with the new location, and the revision of location of transfer track on Canadian National Rys. right of way.

Hydro Electric Rys.—Essex District. —Service on the recently completed extension on Erie St., Windsor, Ont., was opened Dec. 12. This extension forms part of the rehabilitation and reconstruction programme undertaken since the lines were taken over for operation by the Hydro-Electric Power Commission of Ontario. (Nov. 1923, pg. 548.)

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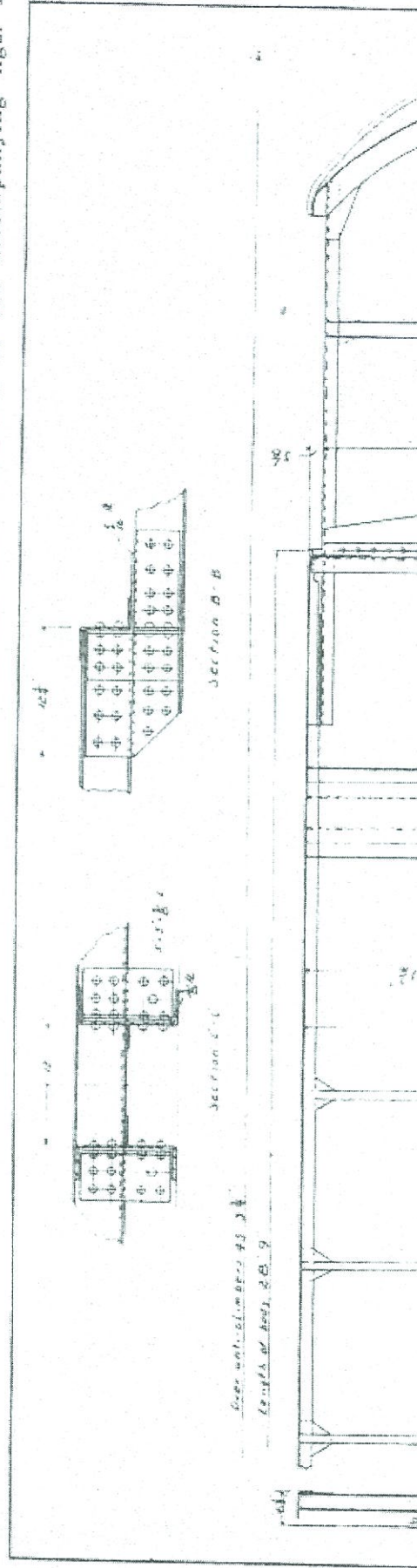
Electric Railway Department

New Safety Cars for Ontario Hydro Electric Railways.

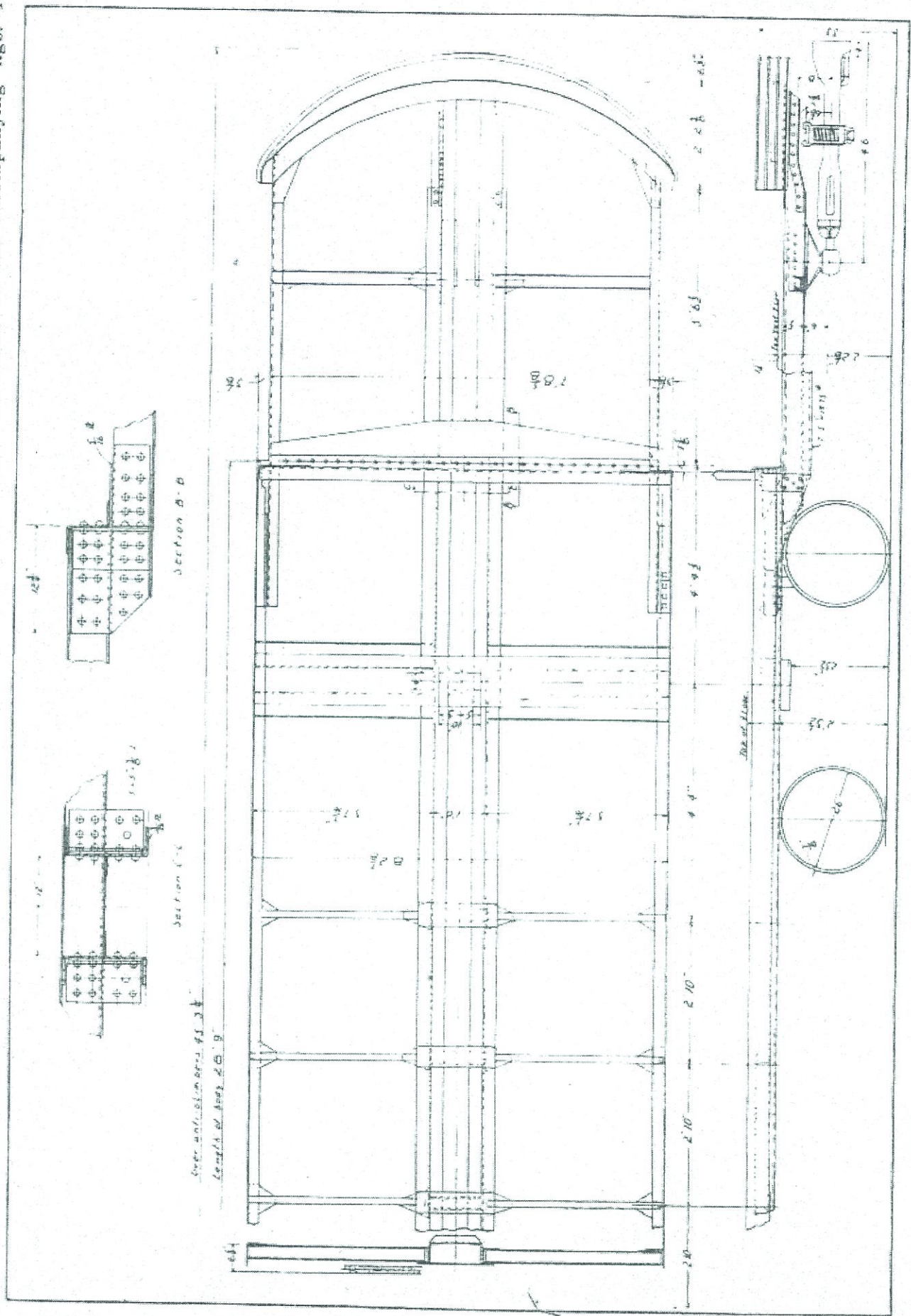
The 12 double truck, double end, safety cars, which, as stated in a previous issue of Canadian Railway and Marine World, the Hydro Electric Power Commission of Ontario has ordered for the Essex and Toronto and York Districts of the Ontario Hydro Electric Rys., will, in general, be very similar to the four built for the Commission in 1923 by the St. Louis Car Co., and described and illustrated in Canadian Railway and Marine World for Oct. 1923, pg. 491. These four cars are in what is known, on the Hydro Electric Rys., as the 300 class, while the 12 last

ers of 3 x 5 in. angle material, these tying the platform knees and center sills and extending from vestibule corner post to vestibule corner post. Outside of these are the anti-climbers, bracketed on the center sills and vestibule corner posts. A feature of this underframe construction is the method adopted of transferring some of the buffing shock to the side sills, this being accomplished by using a plate girder type of construction, wherein heavy steel plates are placed across the headstock and securely riveted to the center sills, and to the side sills

Door control and operation will be developed further in the 400 class cars than in the 300 class. As in the previous cars, the 400 class will be equipped with double folding doors at each corner, front and rear, but greater flexibility will be provided, by arranging so that, if the car is being operated by one man, the doors at either side of the front vestibule may be used, and if by two men, the doors at either side of either vestibule may be used. The change introduced in door operation may best be understood by reference to the accompanying figs. 1



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Underframe Assembly, Ontario Hydro Electric Railways' Cars.

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ordered will be in the 400 class. The chief differences between the 400 and 300 class cars will be as follows: The 400 class will be equipped for multiple unit operation, and will have different underframe construction, viz., main center sills extending through to the ends of the vestibules, the object of the change being to provide the strength necessary for train operation.

The underframe details for the 400 class cars are shown in the accompanying illustration. The two center sills are continuous from end to end, or from buffer to buffer. They are 5 in. Z bars, 11.5 lb. The cross ties are 3 in. 5 lb. channels. The platform side sills are 7 in. 19.75 lb. channels, and are adjustable at the back and at the corner posts to allow for the removal of platform sags, etc. The vestibules have secondary stationary bump-

at the bulkheads. The 400 class car underframe is thus much stronger, and more rigid than that of the 300 class car, which had no center sills, and the change introduced amply provides for sufficient strength for train operation.

On the 400 class cars, automatic radial couplers will be provided at both ends so that the cars may be operated in 2 or 3 car trains. These couplers will have two $\frac{3}{4}$ in. air lines, 15 electrical control connections, and two 600 volt bus connections, although it is not contemplated that the latter will be put into use immediately on the cars going into service. Each coupler will have a drum type switch for making and breaking connections to it. The arrangement will be such that one operation of the drum switch handle will operate both the switch and the air connections.

and 2, in the second illustration—fig. 1 showing the arrangement on the 300 class and fig. 2 on the 400 class. In fig. 1, A is the brake valve with the selector valve attachment, controlling doors 1 and 2. With the brake valve handle in the door open position, either doors 1 or 2, or both of them, can be opened by manipulation of valve A. Valve A, however, does not control doors 3 or 4, they being controlled by conductor's selector valve B which allows either door 3 or 4, or both of them, to be opened or closed by its use. It is apparent, then, that with a 300 car proceeding in the direction indicated by the arrow, and being operated by one man, doors 1 and 2 must be used. With a 2-man crew, and the conductor at the rear of the car, the passengers enter by either door 1 or 6, and leave by either

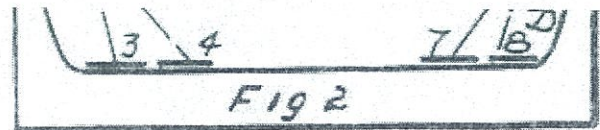
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eration described above, which is believed to mark the farthest step forward in this regard yet taken in Canadian electric railway practice, was adopted largely on account of conditions on the Mimico Division of the Toronto and York District, where the railway tracks parallel the Toronto-Hamilton highway, on which automobile traffic is very heavy. The tracks are first on one side of the highway and then on the other, and the object sought by the door operation system adopted is to enable the passengers to board the car on the side at which they will not be exposed to the danger of being struck by an automobile.

On the 400 class cars, as on the 300 class, the doors will be interlocked, not only with the electrical control, but also with the air brake system, so that a car cannot start down a grade of its own momentum while any door is open. The usual operator's emergency switch will be provided on the door circuits, so that control current may still be obtained even though the doors have been torn off through collision or other accident.

A further change in design as between the previous 4 cars and the 12 now under construction will be in the motorman's position. In the 300 class the motorman was located so that his vision was through the left front window, while in the 400 class it will be through the center front window. This change was made on account of passengers being able to board from either the left or right side.

The control equipment on the 400 class will be the Westinghouse HL electro-pneumatic type. There will be a master controller at each end which will control



Selective Door Operation Arrangement, Ontario Hydro Electric Railways Cars.

As stated in our February issue, the new cars will be equipped with 4 G.E. 265-A 35 h.p. motors, the electrical and air brake equipment will be supplied by Canadian Westinghouse Co., the car bodies will be built by Ottawa Car Mfg. Co., and the trucks will be supplied by Taylor Electric Truck Co. Eight cars will be sent to the Essex District, and four to the Toronto and York District, for operation on the Mimico Division.

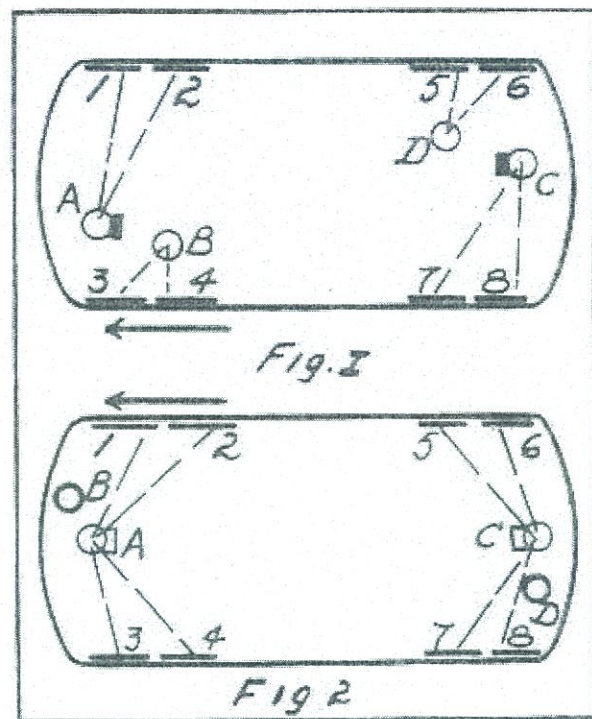
As further stated in our February issue, the Commission is calling for tenders on 12 cars for interurban service, to have the following general dimensions: Length over all, 54 ft. 8 in.; length between truck centers, 35½ ft.; width over sheathing, 9½ ft.; height rail to roof, 11 ft. 6½ in. They will be of all steel construction, equipped for double end operation, and will have center entrance doors. In addition to the main compartment, with accommodation for about 50 passengers, they will have a combined smoking and baggage compartment, at the front, fitted with chairs instead of seats. The intention is to use 10 of these cars on the Metropolitan Division, Toronto and York District, and 2 on the Amherstburg Division, Essex District. The expectation at the time of writing (Feb. 15), is that the contract for their construction will be awarded in the near future.

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C, which will permit him to operate doors 5, 6, 7 and 8, their operation being governed by the position of the selector valve on valve C, and the position of the selector valve D. The function of the special handle for valve C is to permit operation of the doors without operation of the braking functions of valve C. In case of operation of 2 or 3-car trains with the 400 class cars, operators of the 2nd, or of the 2nd. and 3rd. cars, as the case may be, will be provided with these special handles which can, of course, be used on either valve A or C, thus making it possible for the operators to occupy either the front or rear vestibule. The doors will be utilized by incoming and outgoing passengers as in the 300 class cars.

The improvement in selective door operation described above, which is believed to mark the farthest step forward in this regard yet taken in Canadian electric railway practice, was adopted largely on account of conditions on the Mimico Division of the Toronto and York District, where the railway tracks parallel the Toronto-Hamilton highway, on which automobile traffic is very heavy. The tracks are first on one side of the highway and then on the other, and the object sought by the door operation system adopted is to enable the passengers to board the car on the side at which they will not be exposed to the danger of being struck by an automobile.

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CANADIAN RAILWAY AND MARINE WORLD

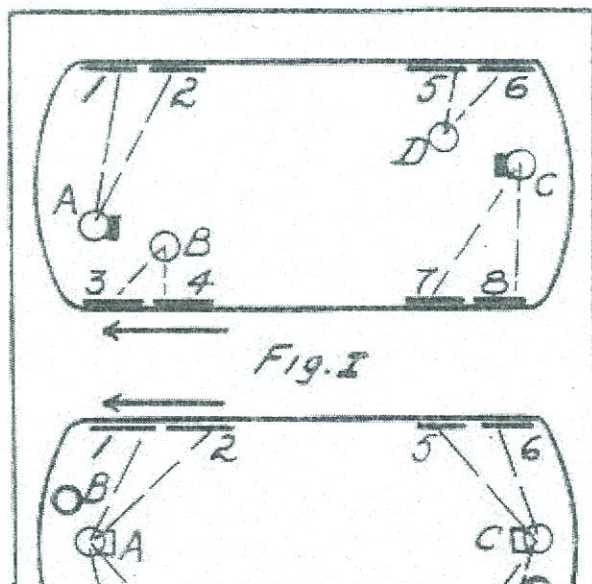
door 2 or 5, the conductor controlling doors 5 and 6 by manipulation of valve D. If the passengers enter by door 1, the motorman collects the fares. The car is operated on the p.a.y.e. principle. Valve C corresponds to valve A at the front, and controls doors 7 and 8. In one man operation of the 300 class cars, the passengers enter by door 1 and leave by door 2, the rear doors being locked.

In fig. 2, showing the door control arrangement on the 400 class cars, valve A is identical with valve A in fig. 1, and valve B is an additional 3-position selector valve, with the control so interconnected that it may be set for the control to apply to doors 1 and 2, or 3 and 4, or both groups. With this equipment, any combination of door opening at the end of the car is possible with the exception that two doors cannot be open on one side when but one door is open on the other side. Valves C and D are identical with valves A and B respectively. If a conductor is stationed at the rear end of a 400 class car he will be provided with a special handle for valve C, which will permit him to operate doors 5, 6, 7 and 8, their operation being governed by the position of the selector valve on valve C, and the position of the selector valve D. The function of the special handle for valve C is to permit operation of the doors without operation of the braking functions of valve C. In case of operation of 2 or 3-car trains with the 400 class cars, operators of the 2nd, or of the 2nd and 3rd cars, as the case may be, will be provided with these special handles which can, of course, be used on either valve A or C, thus making it possible for the operators to occupy either the front or rear vestibule. The doors will be utilized by incoming and outgoing passengers as in the 300 class cars.

The improvement in selective door op-

the train line of 12 wires running throughout the train and controlling the reverser and main switches, the latter being in a group underneath the car. The standard safety car control features will be incorporated in the 400 class construction, so that power will be removed, the brakes and sand will apply, and the doors will become balanced, if the motorman removes his hand from the controller handle.

Other features of the new cars will be that the automatic trip cylinder will operate on the motorman's control switch, and a special door relay will be provided which will automatically cut off power to the controller when any door in the car or train is open. Signal lights will be located in front of the motorman's position, to indicate when the doors have been closed, and the usual passenger buzzers will be provided, as well as single stroke bell signalling for car crews. Heating will be by 24 electric heaters for each car, with about 15 k.w. total capacity.



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an excessive rate of speed.

Cars for Ontario Hydro Electric Rys., Essex District. — The Hydro Electric Power Commission of Ontario's Railways Department has ordered 2 inter-urban cars for the Essex District from Ottawa Car Mfg. Co. They will be divided into 3 compartments, viz., baggage, smoking, and main passenger compartment. The smoking room will be fitted with chairs instead of seats, and the seats in the main passenger compartment will be upholstered in green plush. The cars will be about 50 ft. long. Delivery was made about July 1 of 8 double truck, double end, safety cars built by Ottawa Car Mfg. Co., a preliminary description of which was given in Canadian Railway and Marine World for April, pg. 184, pointing out the chief structural differences between them and those built for the same road in 1923 by the St. Louis Car Co.

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tracking of Wyandotte St. through the
Town of Walkerville from Lincoln Road
to Walker Road, with a loop at the in-
terection of Walker Road. The rein-
forcing of the embankment on the De-
troit River near Amherstburg has been
completed. This was at a point where
the track was located very close to the
river bank, and the embankment was
showing signs of failure on account of
the river wash.

that the new trackage will be in operation by Oct. 1.

Ontario Hydro Electric Sys., Essex District. — The changing of the track on the Tecumseh Division through the Town of Riverside, from the side of the highway to the center, has been commenced. The type of construction will be the same as at present in the adjoining Town of Ford. While a single track only is being laid, provision is being made for double track in the center of the street, with a pavement on either side. The material has been ordered, and the work is expected to be commenced at an early date on the double

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any year period for which the track is still good, and in addition the new track would be more costly to operate and maintain, because the track allowance would be used by all vehicles.

Windsor, Essex & Lake Rapid Ry. is, we are advised officially, paving its line for about 3,500 ft. through Cottam Village, Ont., between rails, and for 20 in. on either side of them, with crushed stone and tarvia top; putting in a concrete pavement for about 500 ft. on its line in Oak St., Leamington, and paving one block on Windsor Ave., Windsor, with concrete.

Winnipeg Electric Co.—In addition to

ing in progress:—permanent tracks on Maryland Bridge, 85 lb. rails being laid on tamarac ties with tie plates; total distance equivalent to 2,200 ft. single track; permanent track in paved street, Levis St., between Johnson and Watt Ave., 60 lb. rails being laid on tamarac ties with tie plates; 450 ft. single track. The Sargent Ave. extension is reported to have been put into operation Oct. 18.

An agreement for an exclusive franchise for light, heat and power was arrived at recently between the company and the West Kildonan municipal council, a condition being that the company will extend its Macgregor street car line

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the end of October. (Nov., pg. 575.)

Ontario Hydro Electric Sys., Essex District.—Construction of the 2,700 ft. diagonal line double track between Wyandotte St. and Walker Road, Walkerville, described in Canadian Railway and Marine World for November, pg. 575, has been completed, and it is expected, at the time of writing, (Nov. 18) that it will be placed in operation about Dec. 1.

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CANADIAN RAILWAY AND MARINE WORLD

Ontario Hydro Electric Railways' Cars.

The last 4 double truck, double end, safety cars ordered by the Hydro Electric Power Commission of Ontario's Railways Department from the Ottawa Car Mfg. Co. are expected to be delivered about the end of the year, completing orders for 16, of which 8 have been assigned to the Essex District, and 8 to the Mimico Division, Toronto and York District. Four are in operation on the Mimico Division, and the 4 being built will be sent there. They were described and illustrated in Canadian Railway and Marine World for October, pg. 518.

Changing of gauge on the cars operating on the Mimico Division, Toronto and York District, has been completed, the last job being on the snow plough, which was finished Oct. 13. The gauge was changed from 4 ft. 10 $\frac{1}{8}$ in. to 4 ft. 8 $\frac{1}{2}$ in. on 14 cars at the Mimico Division shops, in the west part of Toronto. We are advised that the matter of getting the wheels pressed further on the axles did not present any extraordinary difficulties, but that a good deal of work was necessary in the way of drilling new

placed, at the time of ...

We are advised officially ... building of the trailers will not proceed with until some at least of interurban cars contemplated are received and placed in operation.

The proposed expenditures referred to also contained an item of \$22,000 for rehabilitating 5 motor cars obtained from the Guelph Radial Ry. We are advised that 3 of these have been rebuilt by the Ottawa Car Mfg. Co., and the other 2 by the Toronto Transportation Commission. They have been equipped with Westinghouse 306 motors, and new standard gauge trucks. About Jan. 1, 1925, the gauge of the track on the Scarborough Division, Toronto and York District, on which they will be operated, will be changed from 4 ft. 10 $\frac{1}{8}$ in. to 4 ft. 8 $\frac{1}{2}$ in.

Toronto Railway Head Office Building.—As stated in Canadian Railway and Marine World for November, pg. 570, the Privy Council's Judicial Committee, in its decision on the Toronto Ry. arbitration case, decided that the city was bound to purchase from the company its head office building, at King and Church Sts., Toronto, valued at \$170,000. Now

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pletion.

The two interurban cars, ordered from the Ottawa Car Mfg. Co., for operation on the Essex District, a preliminary description of which was given in Canadian Railway and Marine World for September, pg. 468, are expected to be delivered about Dec. 15.

As stated in Canadian Railway and

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Electric Railway Projects, Construction, B

Canadian National Electric Rys., Toronto Suburban District. — Considerable progress has been made during the past month with the construction of this line's new entrance into Toronto from the west. Campbell and Lattimore, the contractors on the bridges carrying the line across Gunn's Road and Weston Road, Toronto, are well advanced with their work, and a temporary track has been laid across the road first named. Permanent track has been laid from the connection with the original line to Gunn's Road, and ballasted, both tracklaying and ballasting being done by railway forces. All poles are up for the overhead system. The new line will be connected with the steam railway track near St. Clair Ave., and it is possible that Parkdale will be made the temporary terminal, instead of Keele St. and St. Clair Ave. Ultimately, the cars will run to Toronto union station.

Montreal and Southern Counties Ry. — We are advised officially that automatic sub-station buildings are to be erected at Marieville and Abbotsford, Que., the buildings to be of brick and cement, 28 x 10 ft. The company has ordered from Canadian Westinghouse Co. one 500 k.w. motor generator, and one 400 k.w. motor generator complete, with automatic

The rock ballasting on the Tecumseh and Amherstburg Divisions has been completed. The double tracking of 700 ft. of line on London St., Windsor, which was to have been done this year, has been postponed to next spring. The power station at McDougall and Erie Sts., Windsor, described in our November issue, has been completed, and the machinery installed, and it is expected that it will be in operation on Dec. 1.

Mayor F. Mitchell, of Windsor, stated on Nov. 19 that the Hydro Electric Power Commission of Ontario planned extensions to the Essex District lines to cost over \$1,000,000, and that new tracks would be laid along Ottawa St., Ford City, to connect with double tracks on Tecumseh Road, which will extend to Ouellette Ave., Windsor. Enquiry at the Commission's Railways Department offices resulted in advice that considerable new expenditure is contemplated for next spring, but that final decision as to what work will be undertaken has not been made. W. R. Robertson, General Superintendent, Railways Department, held meetings in Windsor with the Border Cities Transportation Committee on Nov. 20 and following days, in connection with the matter.

Ottawa Electric Ry. — A waiting room

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sion granted. April 9, and the following week (Mar., pg. 261)

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Windsor, Essex and Lake Shore Rapid Ry.—A Chatham, Ont., press report states that J. Piggott says the company is planning to extend its line from Chatham to London, and that for the purposes of construction an issue of bonds will be placed on the London, Eng., and Paris, France, markets.

ons **Winnipeg Electric Ry.**—The city coun-

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Chief Engineer

The electric freight locomotive which the Windsor, Essex and Lake Shore Rapid Ry. is having built by the Preston Car and Coach Co., Preston, Ont. will be mounted on Baldwin trucks, and fitted with two baggage doors on each side and motorman's cab at each end. The interior will be fitted with ash, and the exterior painted. The car will be 54 ft. long over all, 9 ft. wide and the bottom framing will be of structural steel throughout, the side sills being 10 ins. channels, and centre and intermediate sills 8 ins. I beams.

73.)

Windsor and Tecumseh Electric Ry.—

The Ontario Legislature is being asked to extend the time for the building of the already authorized line from Tecumseh to Chatham, Ont., and to authorize the building of a branch from its existing line in Sandwich East, easterly to Belle River, Ont. (Dec. 1907, pg. 929. See also Sandwich, Windsor and Amherstburg Ry.)

Winnipeg Electric Ry.—The Winni-

23.)

Sandwich, Windsor and Amherstburg
Ry.—The Ontario Legislature is being
asked to pass an act declaring that sec.
11 of chap. 97 of the statutes of 1893,
shall not be intended to, and did not af-
fect the rights and interests of the mun-
cipality to strike out the first four lines
of the section and by adding words to
the effect that nothing in the act should
have the effect of continuing the fran-
chise of the company beyond Dec. 15,
1912, or beyond such time as under sec.
202 of the Ontario Railway Act, 1906,
the company would be entitled to exer-
cise its rights or franchise. (Nov., 1909.
pg. 841.)

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11/2 ft over all, mounted on trucks from the Ottawa Car Co.

The Sandwich, Windsor and Amherstburg Ry is adding six p.a.y.e. cars to its equipment, three for the Walkerville section and three for the Sandwich line.

C. F. Beams, of the Cobalt Power Co.,