

provements were made in the state, the Illinois Central advanced funds to that commonwealth to carry on its improvements, based on the five best years of earnings, and at the present the state is owing the railroad, which is rather a peculiar feature. From Clinton the route is through the soft coal country. The farmers in the vicinity have splendid ground on top and veins of coal beneath that make them all independently wealthy. At the end of this division at Springfield, the capital of the state, is the old home of Abraham Lincoln, where a very large monument has been erected and is visited by thousands, and it will be the privilege of the ticket agents to visit it if so desired en route. From Springfield to St. Louis you begin to strike the rough country of Illinois, very rolly and hilly, in which territory the coal mines still get thicker and can be seen from the track on account of the Illinois Central owning a very large number of them. The coal is taken right from the mine to the elevators and thence to the engines and cars. Between Clinton and Springfield, at Mount Pulaski, is the junction of the Peoria-Evansville-Louisville Line, which has through car service from Peoria to St. Louis. It is quite interesting to railway men when entering East St. Louis to see the different plans upon which the railways are built; some are on side hills, some on the level, and others again are on very high banks, all terminating at a level where the terminal railway of St. Louis handles all the trains into that interesting city, the home of the World's Fair. The World's Fair Grounds, which are located in the extreme western part of the city, will have first-class suburban service direct to the grounds, and every street car line in St. Louis will make a common centre there, the arrangements being similar to the one at Buffalo during the Pan-American, only on a very much larger scale. The distance from the Union station to the World's Fair is five miles, and it is about the same distance from the city hall. It perhaps will be interesting to the members of the Association to know that Mr. Statler, who ran the big hotel during the Pan-American, has a contract with the World's Fair people to run a very large hotel inside the grounds, conducted on somewhat the same plan and of the same nature as was the hotel in Buffalo, only perhaps five times greater."

Montreal Transportation Co.—The annual meeting was held in Montreal Jan. 21. The following were elected: President, B. McLennan; Managing Director, J. A. Cuttle; Secretary, G. M. Kinghorn; other directors: T. A. Crane, A. Kingman, F. Robertson, A. E. Ogilvie. The only change in the board was the retirement of J. C. Britton, who would be unable to attend meetings of the board on account of his recent appointment as judge. The vacancy was filled by the election of J. A. Cuttle, heretofore Manager, with the title of Managing Director. The company does not publish an annual report.

Barlow Cumberland has resigned the presidency of the Canadian Society in London, Eng., on account of his intention to return to Toronto. On Jan. 4 he went to Newton Abbott, Devonshire, where the Great Western Ry. has a locomotive repair shop, to address a political meeting. The platform was stormed by an antagonistic political element and several free fights ensued.

The N. L. Piper Ry. Supply Co., Toronto, has issued a calendar for 1904, on which several of its specialties are illustrated. The central illustration is a contrast showing a train on the line between Albany and Schenectady, N.Y., in 1832, and one of the present day.

The Montreal Street Ry. Co. gave \$3,000 as a Christmas donation to the Montreal Street Ry. Mutual Benefit Association.

Toronto Railway Co.'s Report.

The following report for the year 1903 was presented at the annual meeting, on Jan. 20: The business has shown a very large increase, the gross earnings being \$2,172,087.85, an increase of \$337,179.48 over 1902. The earnings were \$971,264.46, an increase of 18.5% over 1902. Out of the net profits there have been declared four quarterly dividends of 1¼% each, amounting to \$326,548.26. After deducting pavement charges paid to the City and having transferred \$50,000.00 to the Contingent Account, there remains a surplus of \$180,628.92. There has been expended for general purposes and charged to capital \$379,615.48. This expenditure includes that made for extensive alterations and additions at the power house, new motor equipments, additional track and overhead construction, new rolling stock, and buildings necessary for the increased business of the Company. The boilers of no. 1 power house are being replaced by boilers of much larger capacity and two additional direct connected engines of 1,600 H.P. capacity each and generators are being erected, which it is anticipated will be sufficient to take care of all increases in business until the Company is receiving power from Niagara. As an additional safeguard, a storage battery having a capacity of 3,000 ampere hours is now rapidly approaching completion. The City received from the Company under the terms of the franchise \$298,839.00 as compared with \$255,551.07 in 1902.

COMPARATIVE STATEMENT.

	1903	1902	Increase
Gross earnings	\$2,172,087.85	\$1,834,908.37	\$337,179.48
Operating expenses	1,200,823.39	1,015,361.32	185,462.07
Net earnings	971,264.46	819,547.05	151,717.41
Passeng's carr'd	53,055.322	44,437.678	8,617.644
Transfers	18,654.344	15,974.220	2,680.124
Percentage of operating expenses to earnings	55.3%	55.3%	

INCOME ACCOUNT.

Net income for year after deducting all expenses and fixed charges	\$628,349.49
Profit from sale of new shares not taken up by shareholders	814.02
	\$629,163.51
Appropriated as follows:	
Quarterly dividends	\$326,548.26
Pavement charges	71,996.33
Surplus	
Contingent acct. \$ 50,000.00	
Profit and loss account	180,628.92
	\$230,628.92
	\$629,163.51

GENERAL STATEMENT.

ASSETS.

Road and equipment, real estate and buildings, including pavements and suburban lines	\$11,184,499.49
Stores in hand	139,459.22
Accounts receivable	623,102.08
Cash in hand	\$ 11,388.26
Cash in bank	162,274.45
	173,662.71
	\$12,120,723.50

LIABILITIES.

Capital authorized	\$7,000,000.00
Capital allotted	6,600,000.00
Capital issued	\$6,600,000.00
Bonds—	
Tor. Ry. Co., 4½% sterling currency	\$2,030,373.33
" " 6% debent's	845,000.00
Tor. & Mim. Elec. Ry. & Lt. Co.	100,000.00
Tor. & Scar. Ry., L. & P. Co.	40,000.00
	\$3,615,373.33
Less bonds not sold, and in hand for future requirements	140,000.00
	3,475,373.33
Mortgages	70,000.00
Loan on bonds	100,000.00
Accrued interest on bonds	64,099.90
Accounts and wages payable	166,140.15
Unredeemed tickets	18,936.17

Injuries and damage ins. fund	8,319.19
Dividend 30, payable Jan. 2, 1904	82,113.75
Contingent account	83,674.83
Profits and loss at Dec. 31, 1902	\$1,273,507.26
Balance Dec. 31, 1903	\$ 180,628.92
	1,454,136.18
	\$12,120,723.50

The following were elected directors: W. Mackenzie, Hon. G. A. Cox, J. Gunn, W. D. Matthews, F. Nicholls, H. M. Pellatt and J. G. Grace. The only change in the board is the election of J. G. Grace to fill the vacancy caused by the resignation of Jas. Ross, Montreal, who was Vice-President.

Automatic Electric Signalling.

The Michigan Central Rd. has in operation over 100 miles of double track on which has been installed an automatic electric block signalling system. The last section on which the system was installed extends from Windsor to Woodslee, Ont., 22 miles, and has been in operation since Nov. 10, 1903, when members of the Railway Signalling Club, which was holding its annual meeting at Detroit, inspected this section of the line, and the working of the system was explained by J. C. Mock, Signal Engineer of the line. The length of the blocks varies according to the conditions, but as a general principle, it is aimed to make them about two miles in length. The distant signal is placed about 3,500 ft. from its home. The operation of the signal is effected by a train shunting the battery connected to the rails, which is on a normally closed circuit. The signals stand in a clear position, that is to say, they always show clear unless there is a train or some other obstruction on the block. All the switches are protected and each switch is equipped with a miniature signal so that trains entering from a switch are advised of the condition of the block and whether a train is approaching that block. The signals are of the electric semaphore type. Each signal has a small motor attached to a train of spur gears and operating mechanism for lifting the signal to a clear position, which takes about five seconds. The work done is equivalent to lifting 90 lbs. to a height of 4¼ ins. This weight is effective in setting the signal to the stop or caution position, when the circuit is opened by means of a train on the track anywhere in the block, the opening of a switch, a broken rail or any other obstruction which breaks or shunts the track or signal currents. Where automatic block signals are used, trains are run without orders, and they follow as closely as the blocks permit. A train receiving a stop signal must wait five minutes and then proceed through the block cautiously, with the knowledge that it is obstructed.

Referring to the installation the Railway and Engineering Review said:—"Experiment is being made with an insulated splice. There is an auxiliary or carrier rail on the outside of the track, planned to fit against the head of the track rail, bearing against a block of wood fitted up to the web, with fibre against the rail head and base, and this carrier piece is riveted to a base plate. On the inside of the rail there is an ordinary angle bar, with suitable insulation by fibre sheets. Another new device is a contact bar, used on the turnout rails at crossovers. It consists of an angle bar with the vertex down, presenting a V-shaped section, attached to wooden blocks at the side of the rail, insulating it from the rail. This bar is tilted by spring pressure so as to present an up-turned edge at the side of the rail head, just a little higher than the level of the top of rail. It is connected with the farther rail of main track, and as traffic passes over the crossover turnouts the outer portions of the wheel treads bear upon this contact bar, completing the circuit, so that the track circuit is worked with a car in any position on the crossover."