

plus revenue, making \$143 for a \$100 share. Last Wednesday's quotation was \$138. Seven per cent., which is the highest dividend paid on railway stock, only amounts to  $2\frac{1}{4}\%$  on the cost of the railway system, or, taking the dividend at 10%, which includes interest on other branches of the company's affairs, the amount is  $2\frac{1}{2}\%$  on the total of the company's assets. In 1895 the company paid no dividend; in 1897,  $2\frac{1}{2}\%$ ; in 1901, 4%; in 1904, 6%, and only in 1907, twenty-six years after formation, was the maximum dividend of 7% reached.

The difference between government and private operation is very large, and it is difficult to realize how government operation, pure and simple, can ever be a success. Drayton and Ackworth had proposed that a company, named the Dominion Railway, be formed, with the stock vested in the company, and managed by a self-perpetuating board of men unattached to any government. Mr. Tye did not think there was enough difference between this arrangement and pure government operation to make it a success. One parliament cannot prevent another parliament following it from making changes, and the dangers inherent to government operation are inherent to this system also.

Government operation has been tried in the United States for two years, but the public are now clamoring that the railroads be turned back to private ownership. The only solution for Canadian railroads is to return them also to private owners, making compensation for the irreparable damage done to the roads by government operation. A new company should be organized to take the roads over as private concerns. Possibly the government would have to aid the private companies, but that would be better than a deficit every year. The solution of Canada's railway problem, Mr. Tye claimed, is (1) Increase the freight rates; and (2) return the railroads to private ownership.

## ENGINEERING INSTITUTE ELECTIONS

At a meeting of the Engineering Institute of Canada held November 25th in Montreal, the following elections and transfers were announced:—

Members.—P. L. Allison, Peterboro, Ont.; C. W. Dill, Regina, Sask.; G. R. Langley, Peterboro, Ont.; W. R. MacDonald, St. Catharines, Ont.; W. O. Marble, Vancouver, B.C.; J. W. Morrison, Dane, Ont.; P. B. Roberts, London, Eng.; E. R. Shirley, Peterboro, Ont.; C. E. Sisson, Peterboro, Ont.; C. W. Tarr, Windsor, Ont.; P. P. Westbye, Peterboro, Ont.

Associate Members.—G. B. Anderson, Ottawa, Ont.; Capt. B. L. Barns, Peterboro, Ont.; C. B. Bate, Ottawa, Ont.; C. H. Blanchard, Winnipeg, Man.; A. F. Bookhout, Peterboro, Ont.; J. S. Brisbane, Montreal East, Que.; Lieut. C. F. Corbett, Cardston, Alta.; W. F. Coutlee, Ottawa, Ont.; John Craig, Nelson, B.C.; J. W. Crashley, Toronto, Ont.; J. B. Croly, Vancouver, B.C.; S. L. Decarteret, La Tuque, Que.; Maj. Philip Earnshaw, Toronto, Ont.; Lieut. W. J. Fletcher, Windsor, Ont.; Maj. J. H. Forbes, Smith's Falls, Ont.; C. A. De W. Fowler, Armdale, N.S.; A. B. Gates, Peterboro, Ont.; T. E. Gilchrist, Peterboro, Ont.; A. J. Gray, Toronto, Ont.; Capt. E. K. Hall, Edmonton, Alta.; P. C. B. Hervey, Edmonton, Alta.; S. A. Lanzon, Toronto, Ont.; J. O. Martineau, Quebec, Que.; D. L. McLaren, Peterboro, Ont.; Lieut. W. G. Regina, Sask.; Lieut. F. H. Palmer, Halifax, N.S.; Lieut. W. G. Perks, Peterboro, Ont.; W. J. Pickrell, St. John, N.B.; Lieut. G. C. Reid, Cobalt, Ont.; Charles Robertson, Peterboro, Ont.; Capt. H. L. Roblin, Red Deer, Alta.; N. D. Seaton, Peterboro, Ont.; C. V. Stout, Winnipeg, Man.; A. L. Sutherland, Peterboro, Ont.; H. H. Tripp, Edmonton, Alta.; A. S. Weekes, Edmonton, Alta.; George Blanchard, Port Arthur, Ont.; T. M. Jones, Toronto, Ont.; S. S. Kennedy, Winnipeg, Man.; S. D. H. Pope, Victoria, B.C.; J. A. W. Waring, St. John, N.B.

Associate.—G. C. McAvity, St. John, N.B.

Juniors.—C. T. Evans, Windsor, Ont.; R. E. Hinton, Peterboro, Ont.; E. L. Holmgren, Peterboro, Ont.; Lieut. H. A. Lynch, Ottawa, Ont.; R. D. McKenzie, Winnipeg, Man.; J. F. Patterson, Montreal, Que.; J. H. Reid, Peterboro, Ont.; L. De B. Roy, Ottawa, Ont.; C. B. Shaw, Hawkesbury, Ont.;

R. E. Stavert, Peterboro, Ont.; Lieut. D. C. Wills, St. Catharines, Ont.; Maurice Cossette, Montreal, Que.; J. E. Lyon, Ottawa, Ont.; Stewart Schofield, Winnipeg, Man.; Capt. R. D. Thexton, Ottawa, Ont.

Transferred, Associate Members to Members.—J. N. Finlayson, Winnipeg, Man.; S. J. Fisher, Montreal, Que.; A. R. Greig, Saskatoon, Sask.; G. H. Herriot, Winnipeg, Man.; Maj.-Gen. G. B. Hughes, Derby, Eng.; Maj. W. G. Swan, Vernon, B.C.; F. B. Tapley, Moncton, N.B.

Transferred, Juniors to Associate Members.—Capt. F. X. Amos, Corinth, Ont.; Lieut.-Col. D. S. Ellis, Kingston, Ont.; J. M. Gibson, Toronto, Ont.; F. H. Hibbard, Sherbrooke, Que.; Lieut. S. E. McColl, Winnipeg, Man.; Ernest Peden, Montreal West, Que.; Maj. G. R. Taylor, Grafton, Ont.; E. E. Wells, Toronto, Ont.; Capt. Walter Youngman, Winnipeg, Man.; J. N. Aggiman, Port Alfred, Que.; G. M. Hudson, Montreal, Que.; B. L. Nares, Montreal, Que.; P. O. Spicer, London, Eng.

Transferred, Students to Associate Members.—Capt. A. L. Cavanagh, Winnipeg, Man.; L. G. McNeice, Wallaceburg, Ont.; Charles Bruce, Ottawa, Ont.; E. V. Gage, Montreal, Que.; E. P. Muntz, St. Catharines, Ont.; E. S. Smyth, Kitchener, Ont.

Transferred, Students to Juniors.—H. H. B. Loignon, Outremont, Que.; J. A. Vance, Woodstock, Ont.; A. P. Black, Toronto, Ont.

## TOWN PLANNING IN RELATION TO INDUSTRIAL DEVELOPMENT

(Continued from page 525)

city. There is no denying the presence of certain flies in the ointment, so to speak, from a town planning viewpoint, but to those who have witnessed it, I think the view from the mountain top bears out the claim I have made—that it is possible so to plan a city that it may be an industrial centre and at the same time an attractive residential city. Were it possible to go back to the beginning, I would say that, looked at from the viewpoint of both manufacturer and the dweller, it would be advisable to set apart industrial areas wherein no dwelling should be built, and residential districts the doors of which would ever remain closed to industrial and commercial enterprises, but just how far town planners should be permitted to go in disturbing existing conditions, I am not prepared to say. I can see how they might easily defeat what I understand to be their aims—the development and betterment of the community.

What I have already said has dealt almost entirely with houses and workingmen. Before I close, let me suggest that town planning should, if it does not now do so, give quite as careful consideration to the laying out of the industrial areas as it gives to the residential sections. If a city desires new industries, or if it wants to see its existing industries prosper and expand, it must provide them with the proper facilities for doing business. In every city that I know of, heretofore when a new industry came along it was permitted to acquire a tract of land and locate its buildings regardless of what effect its actions would have on the industrial development of adjacent lands. The result is that we have more railway switches crossing the streets than would have been necessary had the industrial areas been properly planned in advance, while in some cases large tracts of land otherwise suitable for industrial purposes have been cut off from railway connections altogether, rendering them unsuited for factory uses, while they are practically useless for other purposes. These are conditions that exist right here in Hamilton, and to my knowledge in some other Canadian cities.

Care should also be given to the laying out of the streets in industrial districts. They should be so arranged as to lead to the commercial and residential districts by the shortest possible routes consistent with good town planning and the general scheme for the development of the community, for it is important that it should be made as easy as possible for the working people to get from the factory to their homes and from their homes to the factory, and it is equally important that the manufacturer should be able to