## THE DIVISION ENGINEER OF CONSTRUCTION.

During the building of the Toronto-Sudbury line of the C.P.R. the man who has been least in the public eye but who has had most to do with the detail and responsibility of its construction is Frederick S. Darling.

Mr. Darling was born in Burlville, Rhode Island, October 8, 1863. He received his educational training in the schools of his native State, and after graduating in 1881 spent four years in preparing himself for a life in the industrial world.

In 1886 the Great Northern lines were being extended in South Dakota, and in that year Mr. Darling joined their engineering staff as chainman. After two years as chainman



Mr. F. S. Darling.

and rodman he left this company and joined the Northern Pacific as instrument man.

In the services of this company he acted as assistant engineer and afterwards as division engineer, both on construction and maintenance, and for a number of years had full charge of both construction and maintenance-of-way for the N.P.

In December, 1902, Mr. Darling entered the services of the Canadian Pacific Railway as Division Engineer of onstruction on Eastern lines. In this position he has had charge of the most difficult and extensive work that this company have carried on in Eastern Canada grade revision work from Fort William to Winnipeg and North Bay to Sudbury, construction of the Labelle extension, grade revision from Montreal to Farnham, reconnaissance, survey and construction of the Walkerton and Lucknow Railway.

He was also chief engineer of the subsidiary C.P.R. companies, the Georgian Bay and seaboard and the Tilsonburg and Lake Erie and Pacific railways.

His largest and most important work, however, has been in connection with the Toronto-Sudbury branch of the C.P.R. From the first reconnaissance survey, followed by preliminary and final location and construction, the responsibility, the planning, the working out of petty details and larger schemes have all been his. He has designed and shaped the road as best pleased his purpose. Others may have had much to do with this large work. Others may have been more in the public eye than he, the fact remains that F. S. Darling was the engineer in charge and has now successfully completed the most perfect piece of Canadian railway.

His experience and training on maintenance-of-way made him familiar with what kind of roadway the operating department require for economical work; his wide knowledge of construction work under many varying conditions made the successful handling of difficult problems possible; his capacity for hard work and his great knowledge of details,

nothing ever escapes him, nothing ever forgotten, made the handling of a large body of men, for him, easy.

The opening of a new railway to such a man is but an incident, yet in this case a pleasant incident, the more pleasant when he remembers the loyal support he has always received from his assistant division engineers, Messrs. E. L. Miles, J. W. Porter, and J. Isbester.

## MANAGER OF CONSTRUCTION.

Mr. J. G. Sullivan, manager of construction for the Canadian Pacific Railway Eastern lines, and who for more than a year has directed the work of construction on the Sudbury-Toronto divisions, is a naturalized Canadian, born near Rochester, N.Y. Having in 1905 become assistant chief engineer of the Panama Canal, Mr. Sullivan is one of the most distinguished engineers in America. It is singular that he took his oath of allegiance in Winnipeg only two weeks before he was appointed to the high position as John F. Stevens' assistant on Uncle Sam's big ditch.

Mr. Sullivan is a graduate of Cornell University in engineering. He is a resident of Toronto. On graduation in 1888 he saw service on construction for the Great Northern and the Spokane and Northern. He came to Canada in 1893 as engineer in broadening the gauge between Dunmore and Lethbridge.

Things went flat in the railroad line and for three months Mr. Sullivan was a section foreman. On other roads later he served as locating and divisional engineer, and in 1898 was associated with Heinze on the Columbia and Western. In 1898, when that road was taken over, he joined the C.P.R. From September 1905, to December 1906, Mr. Sullivan did wonderful preparatory work on the Panama Canal as assistant chief engineer under John F. Stevens. When Mr.



Mr. J. C. Sullivan.

Stevens left the canal Mr. Sullivan resigned with his chief and returned to Canada and to railroading.

In April of 1907 he was appointed manager of construction for C.P.R. Eastern lines. In that capacity he has shown himself as energetic, resourceful and as politic as in previous responsible positions.

The Buffalo Foundry and Machine Company, Buffalo, N.Y., who, besides making exceptionally large castings, are builders of vacuum drying and impregnating machinery, vacuum drum, shelf and rotary dryers, compressors, pumps, condensers, and the Bell steam hammer, recently established a New York office at 143 Liberty Street, having engaged Mr. H. E. Jacoby as resident engineer and manager of New York office