

will cost \$5,000 more than the above amount. New floors will be placed on the Salter Street overhead bridge and on Maryland Bridge.

Alberta.

MACLEOD.—The C.P.R. bridge at West Macleod has been swept away. The St. Mary's bridge between here and Lethbridge is a total wreck. The C.P.R. pumping station at MacLeod was swept into the river recently.

British Columbia.

NEW WESTMINSTER.—The million dollar bridge erected here in 1906 across the Fraser River is about to be repainted for the first time. The work will entail an expenditure of \$3,000.

NEW WESTMINSTER.—The by-law authorizing the building of a new \$61,000 bridge across the north arm of the Fraser has been carried.

NEW WESTMINSTER.—Within a year this town will have a rival gas company, and gas at about half the rates charged by the present company. The by-law embodying the agreement between the city and the Royal City Gas Improvement Company, which proposes entering the local field, will likely be finally passed.

PERSONAL.

MR. GEORGE M. KENT is resident engineer for C.P.R. on construction at Noming, Que.

MR. N. A. BURWASH, B.A.Sc., D.L.L., is now practising surveying and engineering at White Horse, Y.T.

MR. C. H. MITCHELL, C.E., of Toronto, left for a three weeks trip to Western Canada and British Columbia.

MR. C. H. RUST, City Engineer, of Toronto, has returned to duty, after about two months' away in illness and convalescence.

MR. W. J. CAMP, electrical engineer of the C.P.R. telegraphs, has been elected president of the Association of Telegraph Superintendents of the United States and Canada.

MR. F. BUTLER, representing Laurie Engine and Machine Company, of Montreal, has returned East after a successful business trip through Northern and Western Ontario.

MR. A. L. READING, manager of The Standard Inspection Bureau, Toronto, has returned from the Atlantic City, where he took part in the programme of the American Society for testing materials.

MR. EDWARD B. MERRILL, B.A., B.A.Sc., has returned from Winnipeg and will now open an office as consulting engineer in Toronto. In Winnipeg Mr. Merrill acted as chief assistant engineer on the Winnipeg Hydro-Electric Development Work, but owing to Mayor Ashdown's stand the work is now practically at a standstill.

MR. A. J. LAVOIE, M.E., who during the past five years has been located at Toronto, has removed to Montreal where, at 76 Gabriel Street, he has entered into business on his own account. He is making a specialty of consultation work, such as the location and construction of factories, the installation of machinery and the complete organization of factory plants with a view to operation along the most productive and economical lines.

OBITUARY.

MR. FRED GELINAS, aged 39, Secretary of the Department of Public Works, died of heart failure on July 2nd. He was a native of Ottawa, but for many years was engaged in newspaper work in Montreal. He went to Ottawa in 1896 as private secretary to the then Minister of Public Works, Hon. J. I. Tarte.

Probably the last square raft ever to come over the Ottawa River arrived July 4th. It was composed of 150 cribs and was on its way to Quebec. It was manned by eighty men, now a sight novel in Ottawa, in what was formerly such a great lumbering country.

THE TECHNICAL SCHOOL AND THE ENGINEER.

At the closing exercises of the Clarkson School of Technology, Mr. William R. Hill, Deputy-State Engineer, New York, in an address on "The Technical School and the Engineer" said in part:—

The theme of this address is the value of technical education shown by the attainments of the engineers who have preceded you.

The hydraulic engineer was undoubtedly one of the primitive engineers, as water is one of the first necessities of our existence. We find on looking back into history that he left other great sources of power in nature lying almost dormant or he but crudely applied them until after the founding of the technical school, which event is followed by the wonderful attainments of the engineer.

Prior to the nineteenth century there were no technical schools, except a few established to train engineers for Government service. Apart from this, the military, engineering did not exist as a distinct profession until within the last hundred years, and it is only within a comparatively few years that engineering has risen to the dignity of a learned profession. Yet at the present time the engineer is regarded as one of the world's great workers, whose advice and supervision are necessary to almost all large or important enterprises.

The value of technical education can be clearly shown by a comparison of the achievements of the engineer of to-day, not only with the primitive but even with the early modern works.

The value of technical education is again shown by the civil and mechanical engineer in developing and equipping our wonderful system of railroads, whose birthday is September the 25th, for on that date, in 1825, the first steam railroad in the world was put in operation.

There is perhaps no better illustration of the worth of technical education to mankind than is shown by the discoveries of the electrical engineer, since the founding of the technical school. Prior to that period the great natural sources of power to produce electrical energy had escaped detection in all the ages of the world's existence.

Thus far we have considered only the results of technical education in their direct practical effects, that is, in relation to the construction of the works of civilization. There is, however, a broader view of these educational forces; it is their relation to social progress. If we look still deeper we shall see that with this advanced standard of living there has come an advanced standard of ideas and a spirit of liberal education. All this can be traced to technical education which has produced men capable of controlling and guiding some of the lesser forces of nature, for the benefit of humanity. Into whatever department we may look we shall find at the foundation technical knowledge and skill, without which we could not produce these results.

The men of yesterday laid the foundation; we of to-day are building upon their work, and our work in its turn must serve the purposes of those who follow us. It is well, therefore, for each of us to bear in mind as we go on from day to day, that Providence has ordained us to labor, not only for the material profit which may accrue to us from our toil, but to bear a part conscious or unconscious, in that mighty evolution which, in days to come, will bring at last universal peace and a living realization of the brotherhood of man.

PATENTS.

Below will be found a list of patents recently granted to Canadian inventors in Canada and United States, which is furnished by Messrs. Fetherstonhaugh & Company, barristers, solicitors, etc., Montreal, Ottawa, Winnipeg, and Vancouver.

Canadian Patents.—A. Berry, Ottawa, Ont., Pulverizer; H. H. Pitts, Ottawa, Ont., Dust Suction Apparatus, C. N. Choate, Woodstock, Ont., Cement Block Machines.