

requirements in engineering must have been the pleasing gratification of a life wish.

In 1877 John Galbraith and William Hodgson Ellis were the teaching staff of what is now the Faculty of Applied Science, and their students did not number half a dozen. To-day the teaching staff numbers over thirty and the student body over seven hundred. Through these years of stress and growth Dean Galbraith has been the guiding hand as well as the official head, and a week ago the graduate body presented to the Board of Governors of Toronto University an oil painting of their former teacher as a token of their appreciation of him as an educationalist, an administrator, a man and a friend.

As a teacher Dean Galbraith was not a high-pressure educationalist. His students were constantly encouraged to inquire. To educate with him was to bring out far more than to pour in; to promote reflection and stimulate thought was the object of his teaching. No one was ever snubbed for ignorance or silenced for presumption, nor was a sneer ever used by him in the class-room. In his journeys back to "first principles" he sometimes sorely tried the patience of a restive class, but those who came in closest touch with him realized the soundness of his arguments and were stimulated in thought.

As an administrator he stands out, in the life of Toronto University, a leader. About the man there is such a fine spirit of inflexibility towards his notion of duty that those working with him catch the inspiration of the place, and his wishes are anticipated. Cautious in the extreme and thorough, he masters the question himself and then carefully and fully presents it in detail, keeping hid his own bias until he is sure the listeners' views are his views. He always restrained, and never at first encouraged new ventures or radical measures, but when the enthusiasm of the moment had subsided and the work of completing the details of some dreamer's scheme, he was ever ready with sympathetic council and patience for the slow working out.

Of Dean Galbraith as a man we will say but little. We leave that to those who were more intimately acquainted with him. This we do know, kinder man never trod God's earth, nor a more generous soul.

EDITORIAL NOTES.

The Dominion Railway Board are sending out a circular in which they intimate that railway companies need not expect the Board to confirm what has been done unless they have sanctioned that particular work before it was undertaken. The old plea that the money has been spent and the railways will suffer great hardship if the law is enforced will no longer avail.

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Advices from New York and Chicago show much negotiation in structural steel proposals during the week. Probably 100,000 tons is expected to be contracted for in various large buildings on Wall Street, and in the city hall and the Marx Building in Chicago. But it is significant to find a despatch of November 9th saying: "Contracts verbally awarded last week were between 25,000 and 30,000 tons, but the business actually closed was less than 15,000 tons."

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Elections are now well over, and for another four or five years business will continue uninterrupted by the excitement and prejudices of party politics. If the Government closes contracts for the many public works they have been advertising work should be plentiful. The prices submitted will likely be lower than they have been able to secure heretofore, and it is in quiet times like these that necessary public works should be undertaken.

While a better feeling has existed throughout the American steel industry since the election of November 3rd, the tendency is everywhere to magnify the improvement that has taken place in trade. The election of Taft was largely discounted during the second half of October by heavy transactions, and the first half of November will be greatly less. The railways are not sufficiently in funds to buy all they need, but they have been giving small orders to rail mills. The Pennsylvania, the New York Central, and the Elevated has each given out a number of bridge and crossing contracts, but the aggregate is small.

PRECIPITATION FOR OCTOBER, 1908.

The table shows for fifteen stations included in the report of the Meteorological Office, Toronto, the total precipitation at these stations for the month. Ten inches of snow is calculated as being the equivalent of one inch of rain:—

Station.	Depth in inches.	Departure from the average of twenty years.
Calgary, Alta.	1.60	+ 1.12
Edmonton, Alta.	1.50	+ 0.79
Swift Current, Sask.....	2.60	+ 1.95
Winnipeg, Man.	2.20	+ 0.59
Port Stanley, Ont.....	1.50	— 1.38
Toronto, Ont.	1.01	— 1.42
Parry Sound, Ont.....	0.50	— 3.38
Ottawa, Ont.	2.40	— 0.27
Kingston, Ont.	2.20	— 0.54
Montreal, Que.	1.50	— 1.66
Quebec, Que.	2.20	— 0.98
Chatham, N.B.
Halifax, N.S.	3.70	— 1.81
Victoria, B.C.	2.30	— 0.05
Kamloops, B.C.	0.60	+ 0.15

MECHANICAL STRAINS IN POLE LINE.

In our issue of October 23rd, 1908, in Mr. F. A. Bowman's paper on page 756 two typographical errors occurred. The formulæ for side strain should read as follows:—

For single trolley, horizontal strain $= \frac{L}{2x} \left(\frac{L'W}{4} + \frac{TW'}{2} + \frac{Z}{2} \right)$

For double trolley, horizontal strain $= \frac{L-A}{2x} \left(\frac{AW}{2} + [L'-A] \frac{W}{4} + \frac{TW'}{2} + \frac{Z}{2} \right)$

WHEN YOU FIND THE AUTHORITY ENGINEERING PAPERS OF GREAT BRITAIN AND THE UNITED STATES QUOTE FREQUENTLY ORIGINAL ARTICLES FROM THE CANADIAN ENGINEER YOU MAY REST ASSURED THERE IS A REASON FOR IT.