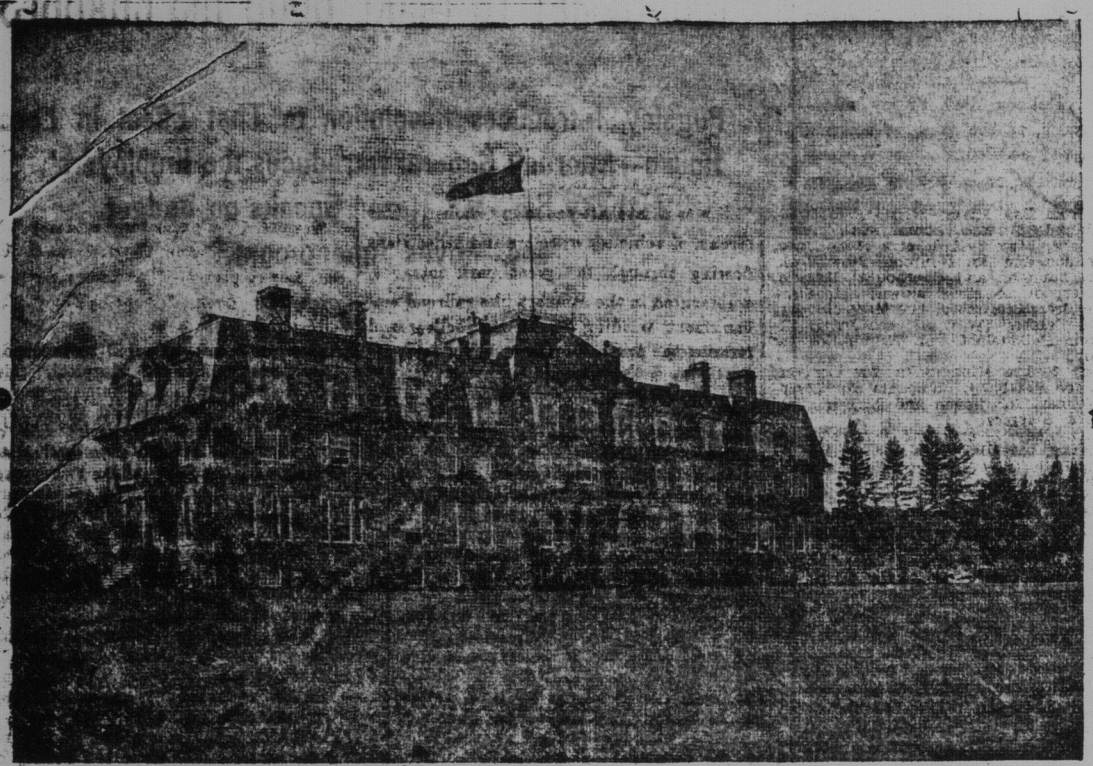


THE SEMI-WEEKLY TELEGRAPH, ST. JOHN N.B., MAY 16, 1902.

# THE MAKING OF AN ENGINEER AT THE UNIVERSITY OF NEW BRUNSWICK.

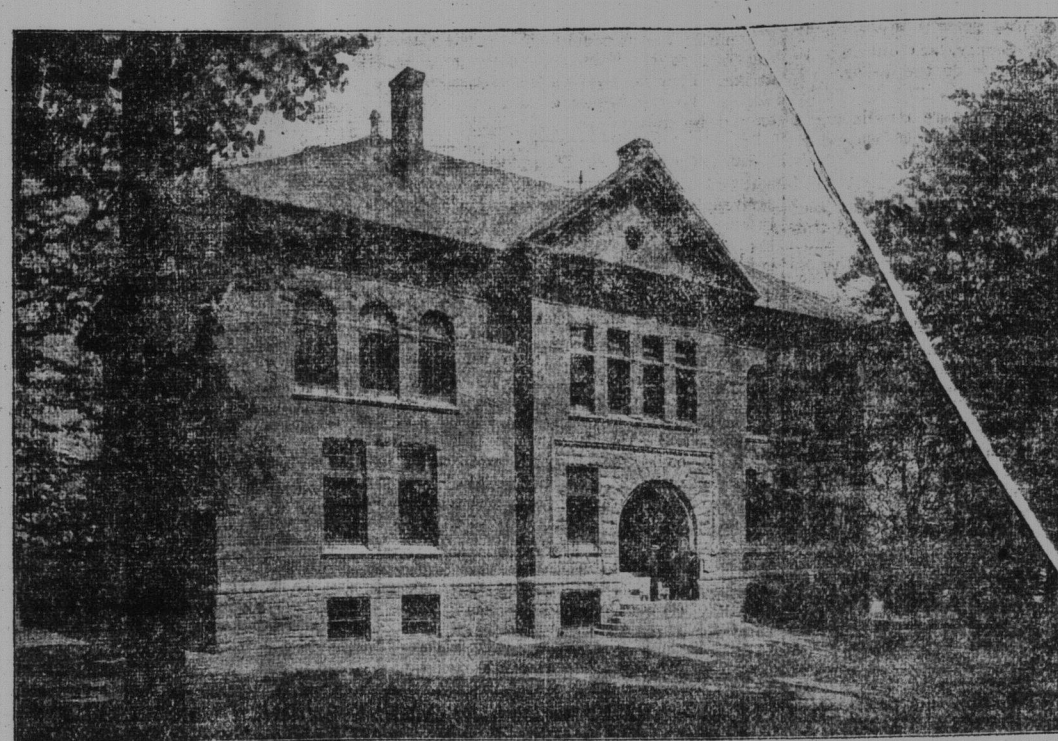


UNIVERSITY OF NEW BRUNSWICK, FREDERICTON.

leading subjects constituting the course are theoretical and practical electricity, physics and those branches of mechanical engineering which are especially adapted to the wants of the electrical engineer. The theory of electricity is thoroughly taught and is supplemented by an extensive laboratory practice. The university has been granted the use of the dynamo, motors, lines, etc., of the Fredericton Electric



PROF. F. BRYDSON-JACK, B.A.,  
Dean of the Engineering Faculty and Professor of Civil Engineering, University of New Brunswick.



ENGINEERING BUILDING, UNIVERSITY OF NEW BRUNSWICK, FREDERICTON.

THIS progress made by the University of New Brunswick, the increased attendance of students, and the very profitable course it now offers to young men for an exceedingly small return, are attracting much attention throughout Canada. The Canadian Electrical News for April describes a three-page article to the university, well illustrated by cuts of the main building and the engineering building, which are reproduced here, together with others made specially for The Telegraph.

The news pays particular attention to the engineering course of which this newspaper has spoken from time to time with in the year. Development along this line is particularly useful in Canada, because so many great engineering projects must be carried out in the near future, when the country promises to make even more extraordinary strides than it has during the last few years.

A portion of the article in the Canadian Electrical News is reprinted here. It is of particular interest at a time when the university is seeking an increased grant from the local government. The news says in part:

The University of New Brunswick is located in Fredericton, the capital of the province of New Brunswick. The city is situated on a large level piece of land, around which flows the St. John river in the form of a large bow. Back of the city rise the hills of the valley and part way up these hills is located the university.

Surrounding the university grounds, a long winding driveway through a grove of maple and beech trees leads up to the buildings, which are most magnificent view of the city, of the St. John river, and of the surrounding country is obtained.

The university is supported by the provincial government and by the income derived from grants made by the crown, as well as by the students' fees. It was first founded in 1800 by a provincial charter and called the College of New Brunswick. In 1828 a royal charter was granted by the crown incorporating the college by name of Kings College. In 1859 an act establishing the University of New Brunswick and transferring to it all the lands, rights, endowment and other property of Kings College was passed by the legislature of New Brunswick.

At present the university is governed by a body styled the senate, the president of the senate being the chief superintendent of education. The chancellor of the university, who directly manages the university for the senate, is also a member of this body. The other members of the senate are either appointed by the government or elected by the Alumni Society and Teachers' Institute.

The university has four distinct courses and grants three degrees, namely, that of B.A., for the arts course; that of B.Sc., for the science course; and that of B.E., for either the civil or the electrical engineering course.

The engineering department, which gives a degree in either civil or electrical engineering, has been established since a short time, but has attracted considerable attention due to the rapid progress it has made and the thorough and efficient course which it gives.

In May, 1900, the university celebrated its 100th anniversary by laying the corner stone for its engineering building, and this was ready for occupancy in May, 1901. The electrical, cement testing, steel, iron, wood, brick and stone testing laboratories, workshop and janitor's room are located in the basement of this building. The basement also provides room for the engine, boiler, hot water heater, and storage battery, in addition to the dynamo, motor, testing machines, etc., used in the laboratories.

On the first floor are physical and chemical laboratories, the physical and chemical lecture rooms, the chemical store room and the Bureau's office. On the second floor are the drafting room, instrument room and engineering museum, a lecture room and library. The entire building is heated by hot water and lighted by electricity.

The engineering students attend lectures in the arts building as well as in the engineering building. The French, classical, natural science and philosophical laboratories, the main museum, library, reading rooms, Y. M. C. A., rooms, residence rooms, chancellors' and stewards' apartments.

The observatory contains an achromatic telescope, equatorially mounted, meridian transit and sidereal chronometers. Observations are taken from the Meteorological Survey of Canada.

The course in civil engineering extends over four years and is not narrowed down to any special branch, but is designed to fit the young graduate to take a position in any of the numerous special branches of civil engineering by giving him a thorough training in the principles common to all.

The course in electrical engineering also extends over four years and is designed to furnish an extended training for students who desire to become specialists in the field of electrical science, with its numerous applications in modern industries. The

Lighting Company, and each year a number of practical tests are made to enable the students to become familiar with many of the appliances used in the generation and distribution of electricity. The Canadian General Electric Company, of Toronto, has presented the university with a three-kilowatt compound dynamo and rheostat, a three-kilowatt motor, two switches, a voltmeter, and an ammeter, while the university has purchased a storage battery and the apparatus necessary for wireless telegraphy, and is granted the use of an X-ray outfit.

Steam engineering is taken up in the third year. The theory of heat is first thoroughly studied, so that the student may be perfectly familiar with the laws and formula governing the production and



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expansion of steam. The various kinds of boilers and the methods of determining the grate surface, heating surface and chimney area required for a boiler of any horse-power are then discussed. After the theory of the steam engine itself is taken up and experiments are made with the engine at the university to determine its indicated horse-power.

In the first two years of the electrical engineering course the student is taught English, French or German, mathematics, botany, drawing, surveying, logic and physics, and must prepare a thesis during the summer vacation descriptive of an engineering work or structure for the purpose of making surveys for a short line of railway. This survey is mapped and traced by students of the fourth year.

Professor Brydson-Jack was appointed dean of the engineering faculty in May, 1902, retaining at the same time the professorship of civil engineering to which he had been called the previous year. He has had a large and varied experience in charge of detail designs for many well-known engineering structures, such as the viaduct for extension of Riverside Drive, New York, part of the Boston subway, part of the Southern Union Station, Boston, and the Rankin bridge, having the heaviest 500 foot span then built. He was also engaged in railroad work on the St. John Valley and Riviere du Loup railway surveys, on the Harvey-Moncton short line surveys, with the Belvedere & Hudson Canal Company, and with the Buffalo, Rochester & Pittsburgh Railway Company. He was engineer in charge of one of the branch offices of the Keystone bridge works, then a part of the Carnegie Steel Company, for one year, and before taking the chair of civil engineering at the university was engineer in charge of the draft-

ing department of the Port Pitt bridge works. At present he also holds the position of city engineer for Fredericton (N. B.). He is thus eminently qualified to give a thorough and practical course in civil engineering and to direct the work of the engineering department.

Professor Brydson-Jack was born in Fredericton (N. B.) in 1871, his father having been president of the university from 1861 to 1885. He obtained his high school education under the well known Doctor Parkin (who is now acting for the trustees of the Cecil Rhodes scholarships), winning the prizes for the best general standing in the different years, as well as winning the Douglas medal for classics and the mathematical prize. In September, 1887, he entered the University of New Brunswick, matriculating at the head of his class and taking the York county scholarship. After taking the full four years' art course, he graduated at the head of his class in 1891 with degree of B.A. He then entered the Rensselaer Polytechnic Institute of Troy (N. Y.), taking the full four years' course in three years, graduating with degree of C. E. in 1894, also winning the prize given in the junior year for the best summer thesis of the class. From 1894 to 1898 he was engaged in the active practice of his profession.

Professor Brydson-Jack is a member of the Society for the Promotion of Engineering Education, as well as an associate member of the American Society of Civil Engineers. He also organized last year the Engineering Society of the University of New Brunswick, the membership of which includes many of the prominent engineers of the maritime provinces and vicinity, as well as the students of the university.

A. Melville Scott, B.A., Toronto '96, Ph. D. (Göttingen '98), professor '98.

## STRATTON'S STOUT DENIAL.

(Continued from page 1.)

Accepting the statement Sept. 10 and 11, Sept. 10 he left the parliament building to make the draft letter to Aylesworth at Osgoode Hall, shortly after 12 o'clock, and on Sept. 11 he left the parliament building shortly after 10 a. m. with Walter Boland, and was at the Dominion Permanent Loan building until after 1 o'clock.

"Did you pay Gurney any money, or did you give any one money for Gurney?" asked Johnston.

"Never," was the reply.

"Did you give Frank Sullivan \$3,000 to buy the land?"

"No, not three cents," declared Mr. Stratton.

"Did you send a man with a package on any occasion?"

"Never," was his reply.

He also denied he had discussed with Gurney protests in Algoma or that he had left any communication with D. A. Jones, of Boston, within the past two years.

He had never had any business dealings with the Sullivan, either. The word "corruption" was used only in the sense of consideration a government supporter ordinarily received.

"I never made single appointment with Gurney. He never came to see me, except by his own wish," declared witness, and added that the only date on which he had seen him in September was on the 9th.

"As to where the money came from," said Johnston, "I suppose it would be easy for you to obtain \$3,000."

## LOCAL GOVERNMENT WILL FORCE MR. MORRISSEY TO MAKE GOOD HIS CHARGES.

(Continued from page 5.)

to do so, stating that his business required his attention at home and that he did not wish to prolong the sitting of the legislature, but would prefer said charges at such a time as he thought proper.

"He is therefore resolved that in the opinion of this house it is the duty of the said member who has impeached the integrity and official conduct of the surveyor general and the administration of the crown lands department to forthwith formulate his charges and demand that a committee of the house be appointed for the purpose of an investigation into the charges made."

"And further resolved, that if such charges be formulated by the said member for Northumberland this house hereby declares and affirms its willingness to continue the present session for such length of time as may be necessary for a full, proper and sufficient inquiry into each and all of said charges."

In the legislature Wednesday Hon. A. T. Dunn spoke among other things, on the statement of the surveyor general, the statement of the surveyor general in going to read a statement which leaves the opposition with no leg to stand on in reference to those charges. In 1902 the total shipment from the province was 451,000,000.

Less from Maine and Quebec, via Winding Tides, 81,000,000.

Shipped by Richards, coming from Quebec, 2,000,000.

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## SHIPPED AT ST. JOHN, FROM NOVA SCOTIA, PORTS.

Amount to be accounted for, as set out in New Brunswick.

From New Brunswick Railway, 40,000,000.

Out by Gibson, granted lands, 2,000,000.

Shipped Moncton and Shediac (very little Crown Land), 23,000,000.

North Shore ports (outside of Crown Land), 41,000,000.

Sackville (very little Crown Land), 16,000,000.

Kent county (outside of Crown Land), 4,000,000.

Miramichi (outside of Crown Land), 3,000,000.

Carried over by Richards & Shives, 10,000,000.

From private lands, 265,000,000.

Add stumpage paid on spruce, fir and hemlock imported, 22,000,000.

Total, 900,000,000.

This would leave a balance to account for of 9,000,000 which would be made by small cuts all over the province.

Fatal Train Collision.

South, Newville, Conn., May 2—One man was killed, one fatally and several slightly injured in collision between a freight and passenger train on the N. Y. and N. H. & H. road this afternoon. The dead man was Eugene Coganough, of Baltimore. The passenger train was running into the station when the freight, which was on a cross-over, smashed into the smoker. P. Schmetzman, of Cincinnati, is internally injured and not expected to live.

## Cold Weather Ruins Vermont Crops.

Chesler, Vt., May 2—The thermometer registered 10 below freezing here at dawn and great damage was done to young fruit trees and the foliage. The early planted vegetables are ruined.

Love makes a young man sober and in-bloom man giddy.

Quebec Estimates Before Parliament.

Ottawa, May 1—(Special)—The house of commons devoted the day in supply discussing the public works estimates for Quebec. During the discussion the opposition enquired if it were true that certain of the duties now performed by the minister of public works were to be transferred to the marine and fisheries. Mr. Fielding asked that notice be given of this question. Mr. Borden said that this meant that the announcement in Miscellaneous was unauthorized. Sir Wilfrid Laurier said that he would make an announcement next week.

Quebec Estimates Before Parliament.

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## MONTREAL CONTROL OF MINUTE COAL.

Amherst, May 2—(Special)—A deal representing \$100,000 was closed today through the Bank of Nova Scotia, when Montreal capitalists purchased a controlling interest in the Minute Mining Company, which is owned principally by Amherst men, with Max M. Sterne as president.

The present output of this mine is 200 tons per day. They employ 100 men and the monthly payroll is from \$4,000 to \$5,000. With the increased capital and under the new company this will be greatly increased at once. The property is one of the most valuable in the county.

Quebec Estimates Before Parliament.

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## LYNCH LAW IN THE SOUTH AGAIN.

Two Negroes Who Were Charged With Murder Hanged from a Bridge by an Armed Mob.

Vicksburg, Miss., May 3—Bob Bryant and Will Morris, both colored, arrested for the murder of W. K. Legg, were hanged to the Yazoo bridge at Hay's Bluff just before daylight this morning. Bryant had made a confession early Saturday evening implicating Morris, who he accused of firing the fatal shot. At 11 o'clock last night the negroes were taken from the offices by 200 farmers armed with rifles and shot guns, and their bodies were found swinging from the bridge this morning. Robbery was the motive for the murder.

An Office Boy's Sonnet.

I heard the old man scoldin' yesterday. Because your spellin' didn't suit him quite. He said it better to be a school at night. And you was rattled when he said away. You had to tear the letters from my hand. I'll all again, and when nobody sees. I went, and dented in his hat for spite. That's what he got for treatin' you so mean.

I wish that you type-wrote for me and we was far off on an island all alone; I'd fix a place up under some nice tree. And every time your fingers struck a key I'd grab your hands and hold them in my own. And any way you spell would do for me. —From Love Sonnets of an Office Boy.

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## DESTRUCTIVE FIRE AT KENNEBUNK, MAINE.

Two Mills, City's Lighting Plant and Many Buildings Burned—Loss \$100,000.

Kennebunk, Me., May 3—The thickly settled portion of this town was threatened with destruction today by a \$100,000 fire which raged for three hours among the mills and business blocks. The municipal lighting plant, valued at \$35,000, and uninsured, two mills, five blocks, seven wooden buildings and two tenements were burned to the ground and the stocks of 14 stores are a total loss. The origin of the fire is unknown. It started in the electric lighting station and spreading rapidly consumed the adjoining buildings within a short time. Engines and men from Portland and Biddeford were brought here, but the fire was well under control when they arrived and there was practically no wind and the local firemen had a strong hydrant pressure with which to work. Other than the loss sustained by the town the property losses as a whole are nearly covered by insurance.

Negroes Kill a Planter.

Vicksburg, Va., May 2—William Long, a prominent planter of Adams, was set upon by negroes and killed last night. Posses are scouring the country for three negroes suspected of the murder. A wholesale lynchup, is probable if they are caught. Some people are mighty poor company when alone.

Quebec Estimates Before Parliament.

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