

Engineering

VOL. 64, No. 18

FREDERICTON, N. B., WEDNESDAY, MARCH 7, 1945

Price Seven Cents

"ULTRA-PROM"—FRIDAY NIGHT

Engineering Week to be Climaxed by Wassail Saturday Night

Last year, it was a little later than this, when you were guests of the Engineers at an informal dance held in the Gym. It was the week-end of the Interscholastic Basketball Tournament. Maybe you don't remember the date, but was a dollar to a doughnut that you do remember the dance and what a good time you did have.

This year a committee of three has formulated plans for a Pageant Dance which has been designed with an eye to your valuable time, and in order to justify our endeavor you'll be up the Hill Friday night.

The Hyperbolic Function of the Abstract Root are inclined to disbelieve this and feel that if the facts are poor and the music does not have to be, but your students will care for a short sharp game of bridge.

Should you feel that a night here would be the spot, by stopping around the corner and down the stairs you will find cables and cards provided. Those of you who would care for a short sharp game of bridge.

You Presidium have been to any of our previous dances, so we can't sell you by referring back, but if you'll ask an acquaintance, we'll be glad to recommend our kind to you.

And so, one and all, come to our dance and make us Engineers feel that we're quite the social leaders.

Tea and Dance

At the conclusion of the basketball games Friday night, the Senior class sponsored a very enjoyable dance. A very large number were in attendance and in fact all the students became ardently as soon as they tried to find the dance floor.

New innovations at the affair included Ted Deacon and his orchestra plus a special band-stand (Senior '45).

On Sunday afternoon, members of the Junior class gathered at the Recreation Club, to be entertained at tea by Dr. and Mrs. Greig. Later games were enjoyed. Mrs. Toole assisted in pouring.

The Inquiring Photographer

Your Inquiring Photographer carefully conserved his roll of film (He had to get you know) and splurged all of it to give you the studies presented above:

LOYD WOLDS seems to be fainting on deaf ears. Ed looks just as interested as if he were at any other lecture. No, Hargrave isn't peering into the future, but a galvanometer.

BUBBLE TROUBLE, Morgan concentrating, MacKenzie looking on, MacMillan kibitzing, as the sophomore traverse machos on. As Dr. Stephens says: "Some day we'll get a map of the d— place."

GERMISH, FAIRISH Annie and Don Green busily investigating the wonders of radio. Believe it or not, the boys can actually make that jumble of junk tick. Ah—New Engineers!

DEACON PECKIN' Yep, it's Celia and Helen with their heads together, and with only a transient between them! That looks sure, knives will be sharpened. Hear he's got a box in the hands of his publishers now, entitled "How I Do It!"

HOBBES! NO—LOBGES! Don't let that Coxar fool you, those jelly fingers haven't been riding the rode. They're ringleaders in local Wolf pack No. 373123A. Reading from left to right, Wolves Weyman, Scott, Henry and MacLean.

BLONDE BOND, our trusty treasurer, and his partner, Mort Margulian, prepare to give a demonstration of their lab technique. The moment is charged (as the battery) with suspense, hence the tense, expectant looks on the boys' faces.

An Engineer of 100 Years Ago

DR. JOHN STEPHENS

In New Brunswick, in these times when we import most of our manufactured goods and look outside our own community for ideas and energy for technical advice, it may be fitting to recall a notable and successful engineering achievement of one hundred years ago.

In the Minutes of the Legislative Council of New Brunswick of July 2nd, 1844, the following entry is found: "Submitted an application from Benjamin T. Tibbets for a Patent for an improvement in the steam engine. Approved." The application, accompanied by considerable detail, was made to the Government of Lower Canada.

The improvement in the steam engine described, namely compound expansion, was not in itself original. Such engines had been described, built and abandoned. Tibbets' engine, however, had of the intermediate receiver type and was designed with a full appreciation of the advantages of the compound expansion principle. It was a masterpiece of engineering and was built in 1844.

It is not surprising that original imaginative thinking should have been so notably conspicuous in the work of Tibbets. That is a common pattern of life.

It is a matter of great interest that the first compound machine engine in the world was designed and built in Fredericton one hundred years ago. Those of us who are familiar with local manufacturing history will be interested to know that the first compound machine engine in the world was designed and built in Fredericton one hundred years ago.

The Reinceur, the side wheeler for which this engine was made, was built at Douglas Harbour on Grand Lake. Tibbets had made a study of the river and had decided on the length and speed of vessels. He was able to predict the most advantageous position.

SOPH. TRAVERSE

"Do we have to carry that cumbersome thing around the campus?" one of the sophomores had asked to say the first time a transit was shown to him. He soon learned that he was expected to carry that bulky instrument, and in the not too distant future, the first Thursday afternoon, he was rolling around and we all appeared, just about the time it was rather a job-down to load that we were just going to measure angles. To old professors, as like ourselves (well we had had new lectures on the subject), it seemed an awful waste of time to just stay in one place and measure four or five angles that weren't going to be of any use to us.

The next week we really got going and I soon found. Our first station was down by the gym and if I walked up that hill once I'd hit twenty times. It was nicker than the first day but advanced to rear chairman the next. That was the day we learned the value of our equipment, when that of a picker. When it was time to stop we were short one picket. In my mind's eye, our party got a lecture on looking after college property. The poor picketman had to correct his steps in order to try to locate the missing article, while we got warm in the Memorial Hall. Oh, yes, the picket was finally found. In the instructor's pocket! From rear chairman, to head chairman, to instructor, then, I worked my way. Of course the day I carried that transit around we had almost a flood. There was water running everywhere. The spot where I was supposed to set up could hardly be found, and I had to stay perched on two little stones for the rest of the afternoon to keep from sinking out of sight.

We finally got the survey completed and then came the copying of notes. Two endless afternoon we were devoted to that pleasure, but our books were masterpieces in the end. At least, that's what we judged by the care that was taken of them. We weren't even permitted to keep them during the holidays, might get them dirty.

You can find us now, any Thursday afternoon, happily drinking away in the Forestry Droughthorn. So far our plans have worked out all right. Of course, the ball house was richly out of line, the pump house was on the current plan and the observatory had a missing side—but what are a few minor details like that among engineers!

—H. J. Baxter

"Wass hael," a Saxo greeting, is said to have been first associated with the drinking of healths. Literally translated, "Wass hael" means "be whole," the forerunner of the more modern "Your very good health."

In this he anticipated Freud's classical analysis of the problem by about twenty years.

Tibbets unfortunately died at an early age. He was an engineer in the true sense of the word. Like many other successful practitioners, he never went to college. He had the essential qualification—a good mind.

It may not be too much to hope that in the new world to which all young people now look forward, we may be able once again to do some realistic imaginative thinking along engineering lines. In New Brunswick, with the exception of the variable pitch propeller, it does not seem that we have done very much in the past one hundred years.

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ENGINEERING BRUNSWICKIAN

Wednesday, March 7th, 1945

Many Renovations Planned

C. U. P.

The recent celebration of Founders' Day has inspired a brief study of the government's body of our 111th. In a provincial University and as such has been granted certain powers by the Province. These powers are vested in the University Senate, the present personnel of which is published from time to time in the "Brunswickian". On the Senate are members representing the Alumni and Alumnas and the New Brunswick Teachers' Association. They are chosen from time to time. Matters of policy and all matters affecting finances must be approved by the Senate.

Normally this body meets three times per year, October, February and May. At the October meeting this year, many matters came to its attention related to the coming change-over of the University from its present location to the new site. The President to carry out an exhaustive study of the many problems involved in the move.

OBSERVATORY

It is interesting to know that at U.N.B. at our disposal was the observatory in the British Province. Although the early history of this old building is a little obscure at present, records indicate that it was built in Dr. Jacob's time, about 1830. Some of the instruments, however, belonging to the observatory of 1830, were given to the college in 1930.

However, that is all past history. It can still be used by any of the students, despite the fact that many of the attachments and useful gadgets have been removed from the building by careless or unscrupulous persons. The fate of the two "very fine sidereal chronometers" (star clocks) will probably remain a mystery. Nevertheless, if one is interested enough in astronomy, he can get a "one quite well with what is left. The telescope is a six inch refractor with a focal length of seven feet. It is possible to view most of the planets, the phases of Venus, the moons of Jupiter, and the rings of Saturn. Other phenomena of the heavens may also be observed with skill.

The observatory building is of very fine construction. It has a revolving dome set on a system of rollers. The concrete base of the telescope runs from the dome right down to solid ground to ensure stability. The dome is sitting in one corner because the walls are settling away. A few repairs at this site would extend the life of the old observatory considerably.

It has been indicated that the observatory is fully alive to these problems, and in addition has under study certain changes in curriculum brought to its attention by the Faculty. In addition to continuing meetings of the Special Committee, it is possible that there may be two more full meetings of the Senate before Ennataca this spring.

—A. J. Cameron '45

New Building Electricals' Pride

With the most modern engineering building in Canada, with two distinct courses in electrical engineering, and with two specialists in their respective fields as instructors, we no longer stoop to claim campus supremacy—we have what is believed to be the best four year course in electrical engineering offered in the Dominion.

For the lazier inhabitants of the campus, let's go on a paper jaunt through the fluorescently lit 80,000 engineer's paradise. We'll use the front steps. Now we're on the first floor. That's a bulletin board directly ahead—convenient when you think where yours is or are. To the right is a drinking fountain. In addition, the first floor contains a large lecture room (seating accommodation of 80) with tiered seats, an office, a darkroom, a junior laboratory, a small lecture room, two storerooms, a private lab, containing a 400 short wave Marconi receiver, and the senior electronics laboratory.

Up the back stairs—oops! you nearly fall. Here we have our eighth and last floor storeroom, a transmitting room where a couple of seniors are busy patching up old VEC's, a miniature transmitter, capable of the maximum allowable output of 500 watts or five bands, and a radio room—contains fifty-one radios, all the way from a Sprague, to a great big "Great" with a one color control, down to a Canadian Boach, and including a Mohawk, a Sparrow, a Genetron, a Triax, Rogers, Westinghouse and Peda. A small machine and work shop for repairing electronics equipment, including burnt-out meters, is conveniently close to the sophomore lab. A covered reading room, the "Wass hael" library is situated at the front of the building.

Through a series of trap doors we could have reached the roof which contains flat expanses so constructed to enable a roof-sized antenna. And numerous toppers inhabit with-out fear. Their startled, perturbed, lodged, and unimpaired, translucent, pasteurized beer.



Contains two large power labs, a storeroom, a machine shop, a lavatory, and the building heating apparatus. Arthur will tell you of his two return tube boilers, with low pressure heating or 125 lbs. per square inch for high pressure power work.

This ground floor is inhabited by all the junior electricals and the power seniors. It contains, among other items, a non-condensing steam turbine, driving a 25kw, 135 volt D.C. generator, a new diesel, which was built, was dry by St. Arthrop's junior, of whom it has been said "He'll never know how close he came to the top of my pole." Also on this floor are two alternators, one a General Electric, the other a Westinghouse, which the students have a opportunity to compare.

The Power seniors are getting some good practical layout, as a bus-bar system for switching from one part of the lab to another. This arrangement was found to be very look into the Electronics senior lab. The electronics lab gives a wide range for these work. This year post-war floor of electrically insulated titles are: Frequency Modulation Transmission and Reception.

J. E. Rough '45

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ENGINEERS VETO STORE TRANSFER

It has never been the intention of the society to have the store open during the whole of the day; for if this were to be, the salary of the manager would have to be increased manifold and this extra money would have to come from the profits of the same turnover of goods and that would mean a sharp increase in the price of all goods sold. During the past few weeks we have heard many rumors that the store are to be closed, but we are pleased to announce that for the present at least this is not to be. A meeting of the members of the Society, was held recently to obtain their views on this subject and it was unanimously decided that the store should continue as in the past. It was felt by all members that the store is a necessary part of the college and that the present reduced prices far outweighed the slight inconvenience of having to get supplies during the open hours of 2 to 5 P. M. on Tuesday, Thursday and Friday.

The store is now and will be in the future, a useful and profitable service to the Engineering students on the campus, and we know that it will continue to be regarded in that light by everyone.

President's Message

Publication of an "Engineering Brunswickian" is now almost a tradition. This feature issue was initiated in 1912 and since then has been published in 1945 and since then has been published in 1945. The staff this year has worked hard in an endeavor to print a better edition. Responding to the wishes of several to print a less obscure paper, an effort has been made to provide more material of a general engineering nature, and at the same time satisfy those who appreciate articles of minor educational value.

Co-operation has been splendid. For more material was desired at an early date and was received promptly. To Dave Plummer, Editor, and his editorial staff, to the feature writers, reporters and proof readers, I would like to offer my thanks and sincere appreciation for their efforts.

The combining of the "Engineering Brunswickian" and "The Brunswickian" is now a new venture. The Danes always has been popular and this year promises to match, if not better, previous entertainments. The annual Wassail, ever popular among the "miners," will climax the week's activities. Having maintained a leading position on the campus, the Engineers feel justified in calling this week their own. In the future I hope this week will be continued and that each year it will get better.

This year the practice of holding an Engineering Banquet in the forenoon was revived. Guest speaker was Dean McKel of Mount Allison University, in an effort to augment the knowledge of the engineer and to acquaint him with other fields of study. Dr. Louise Thompson, speaking on various problems of psychology in placing people in in-

—Fred Davidson

Basketball

Thursday night at 8:30 P. M. and Friday night at 7:30 P. M., see the Varsity squad play host to Arment from No. 5. B. G. School, Mont Joli, Que. These games promise to be close, and all students are requested to give their full support—by being there!