

# Touring N.B. Telephone Co.

In January, the members of the senior electrical class, in addition to Professors Collier, Rogers and Scott, journeyed to Saint John to tour the New Brunswick Telephone Company's head office. Transportation was provided by Professor Rogers and two members of the class. Because of the poor operating of one automobile, one part did not arrive in time for an introductory lecture to the tour. While the advance party enjoyed a lecture on the equipment and facilities possessed by the Telephone Company, the wayward number were being given a lesson on jimmying service station peanut machines.

During the morning tour the class was first shown the emergency power facilities used by the Company in Saint John. These consist of large wet cell batteries and a diesel-powered generator which are automatically switched in and started in the event of a power failure in the city. A brief examination of the cable vaults where underground telephone lines go out to the city subscribers was followed by a tour of the test desks. This test office is used to handle local subscribers complaints and to track down line faults. The step-by-step switching used in a dial exchange was next seen and explained to the students, some of whom were some what bewildered in the wire and relay jungle of the switching room. The noon hour saw the students and professors as guests of the engineering staff of the Telephone Company in the Royal Hotel. In honour of the occasion, Professor Collier smoked a large cigar on behalf of his two lessor chiefs and fourteen tribal members from "up the hill".

After this gesture of peace, the tour continued on to the long distance or toll terminals. Although at this point many seemed to be more interested in learning how the operators operate, others were shown the routing procedure followed in putting through a long distance call. No doubt the most interesting part of the tour was through the rooms hous-

ing the microwave (TD-2) system equipment. This microwave network presently extends from Sydney, Nova Scotia into the United States and carries television video signals as well as telephone conversations. The tour was concluded at the television monitoring panel and after a vote of thanks to the engineering staff, the party returned to Fredericton.

## NECBC MEET

(Continued from page 5)  
second at 9 p.m.

The consolation and championship finals are booked for Saturday. The consolation finalists will clash at 2 o'clock in the afternoon. Immediately following the tournament title will go on the line in a sudden-death affair at 3:30 o'clock.

Admission prices vary from 50 cents to \$1.50. Students' prices are 50 cents for a single event and \$1.00 for a pass to all games. The general admission tolls are 75 cents for a single event and \$1.50 for all games. Tickets are on sale in the Students' Memorial Centre daily. They are obtainable between 1 and 1:30 p.m.

## HUMAN ENGINEERS

(Continued from page 4)  
mine the pertinent variables en-

tering into a human behavior problem, discover a way of measuring them so as to have a numerical scale of values, and establish the basic laws governing them, we would be in a better position to solve this class of problem. But this is exactly the same system that is used in engineering today so it would form the ground work for a department of Human Engineering.

One day while visiting Saint John, N.B., a UNB student encountered a fellow who was his exact double. Both stopped and stared at each other, for the similarity of face, form and build was startling. "Pardon me", said the UNB student. "Was your mother ever in Montreal?" "No", replied the other, "but my father was."

## SORRY!

The traditionally open-house held annually in the engineering buildings will not be held this year. Due to the disorderly condition of the buildings caused by the current additions, Dean E. O. Turner asked the Engineering Society to suspend the event until construction is completed.

To those who in the past have expressed their interest and pleasure in our social evening, we extend our sincere regrets that we could not accommodate you this year. It is hoped that the new building will be finished next year and that we will then be able to open our doors again with a greater sense of pride and accomplishment reflecting the growth of the Engineering Faculty.

## Shorter History of Engineering

The Greeks invented electricity. They did it by rubbing amber with cats' fur. This made the amber attract small particles, and the cats' fur to stand on end. It was only natural, really, as the cats did not care much for being rubbed on amber.

The Greeks did not do anything else about electricity, as they were busy at the time with a war; and the next to do anything was an Italian named Galvani.

Galvani found a way to make frogs legs twitch by electricity. Neurotic frogs could twitch all right without Galvani, but nevertheless the discovery was very important, and it led Volta to invent his cell.

Volta's cell was very useful and very popular, and he made a great deal of money out of it; hence, Volta's pile. Volta also invented volts, which are things that push amps around the circuit. Actually amps were not invented until fifty years later, so the volts had to push around on their own for a bit. This gave rise to static electricity, static electricity is very interesting, but not very useful. It is mostly used for lighting.

After Volta, the Electrical business became very brisk. Ampere invented amps, Ohm invented ohms, Watt invented watts, Milly invented milli-amps, and Meg invented meg-ohms. The latter showing the early influence of women on electricity. However, it has since been proved that all these were really invented by a Russian called Serge Arkover, but he did not mention it at the time as he was on nights.

The turn of the eighteenth century was now nigh. It turned after 1799 as predicted, and electricity went along at a great pace. Coulomb invented coulombs, Henry invented henries, Eddy invented eddy currents, Gauss invented geese, Evershed invented Vignoles, and Baden-Powell invented Boy Scouts. At this stage electricity was getting along very nicely until Clerk Maxwell put the whole thing on a mathematical basis and took half the pleasure out of it.

The greatest inventor of all was Faraday. Faraday was sickly as a youth, but he got better and he invented electro-magnetic induction. This enabled electricity to be made in large pieces, and without it we would not have all the benefits of modern civilization such as radios and atom bombs. Faraday was a prolific experimenter and some of his experiments were classics. He conducted the ice pail experiment, the butterfly net experiment, the Faraday cage experiment, and he also experimented with electricity.

After Faraday, the electricity business got very big, and it was not long before people began selling it for money. This took

## YOUR PRESIDENT SPEAKS



It is estimated that the supply of Engineering graduates in Canada over the next three years will remain inadequate. Our position with regard to employment and salaries is extremely good but we must guard against disinterest. By disinterest I mean two things.

First, fewer than half of those qualified belong to an engineering professional society; and secondly, although too many individuals have no conception of what constitutes professional attitude or what these responsibilities are.

Engineering stands at a crossroads. Where our profession goes from here lies in the hands of each and every individual who calls himself an Engineer.

I am taking this opportunity to thank all those who contributed to the various Engineering Activities throughout the year. The tours, smoker and events during Carnival and Engineering Week were capably handled by the various committees.

With the completion of our new engineering building and the rapid growth of engineering enrollment at U.N.B. I foresee a bright and prosperous future for the Society. The Society has a great deal to offer but it is only through your efforts that its benefits may be realized.

David J. McColem  
President  
Engineering Society

the other half of the pleasure out of it, and gave rise to a vast hierarchy now under control of administrators and policy makers. These are very important people and are very busy making policies. They are naturally of much more account than the old fashioned types who only make the electricity.

Nowadays there are two types of electricity — DC and AC. DC is a bit old fashioned and goes the same way all the time, but AC comes and goes. It mostly goes in

the mornings about eight o'clock just when you need it most.

## Electric Love

If she wants a date—METER  
If she wants an escort—CONDUCTOR  
If you think she's picking your pocket—DETECTOR  
If she gets up in the air—CONDENSER  
If she's slow of comprehension—ACCELERATOR  
If she's hungry—FEEDER  
If her hands are cold—HEATER

## THE PROFESSIONAL

(Continued from Page 1)

Professional Engineers in their ranks. Surely our Canadian Cabinet would be much poorer were it not for the counsels of Mr. Howe, one of the most distinguished Engineers in public life today?

In dealing with the United Nations, Unemployment Insurances, or Old Age Pensions, one is faced not only with the comparatively simple problem of whether or not they are good in principle, but also the much more difficult problem of allotting of each an appropriate portion of our resources, to the end that the best overall result may accrue to our community. The following examples may serve to illustrate the type of problem which today faces citizen and legislator alike. Every Canadian, through our Dominion Government, contributes annually approximately

(a) Twenty cents to the administration of the United Nations and its specialized agencies;  
(b) One dollar and seventy cents to the Colombo Plan.

(c) Ten cents to the United Nations Technical Assistance Program.

(d) One hundred and thirty dollars for our own protection.

Probably all will agree with the idea that we should help those more unfortunately endowed than we, and that we should take steps to defend ourselves against aggression. However some Canadians may question the proportions of our wealth which we allot to these worthy causes. Heaven forbid that we be ever faced with a world run by Professional Engineers, such as is suggested by the proponents of Technocracy. We merely suggest that Professional Engineers should make greater contributions to politics than they do.

Unfortunately the difficulties involved in introducing Professional Engineers into the political life of our country are great. Nevertheless it would appear that our profession has a contribution to make in politics. It is up to us to consult among ourselves and find ways and means of making our collective training and knowledge available to our local, national, and world community. In each of these communities we have not only a vital interest but also an important part to play. (An Editorial from, The B.C. Professional Engineer).

# UNIVERSITY

of

# NEW BRUNSWICK



Courses Leading to B.A., B.Sc., B.Ed., B.C.L.;  
B. Admin.; Graduate Courses for  
Master's Degrees and Ph.D. in  
Chemistry

- arts
- science
- engineering
- business administration
- law
- forestry
- education

Pre-Medical and Pre-Dentistry Courses  
for information write the Registrar,  
Fredericton, N.B.