

ENGINEERING EDITION



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Important Men . . .

Most Canadians were happy to learn that Canada has finally asserted its rights as an independent nation by deciding to build a St. Lawrence Seaways System without American aid. In many other respects Canada is showing signs of becoming a full-fledged, not to mention modern and progressive, nation. Every day we hear more news of original research and development. In field such as jet airplanes and atomic energy, work is being done in Canada by Canadians. Manufacturing is becoming of ever increasing importance to Canadian economy. Our country is opening up. More money was invested in Canadian industry last year than ever before. Everywhere, new pulp and paper mills, power houses, chemical plants and mining developments are pushing back the frontiers of our country.

How can Canada, the country that only a few score years ago was devoted almost entirely to agriculture, become industrialized with such breath-taking speed? Whose ability allows us to make the dreams of our forefathers a reality? Certainly, generous natural resources and favourable trade conditions give us the opportunity to increase our wealth, but, our engineers are the people who can combine material with knowledge and produce the goods and services which raise our standard of living. Canada's future in a changing world rests largely in the hands of her engineers.

No engineer believes that his profession is the one-and-only, all important one. He knows that our educators, doctors, businessmen and all others are indispensable. However, he also knows that every one of these people depends in some measure on engineers for almost every article he uses.

Because engineers, in their professional capacity, so seldom come in contact with the public, people seem to forget them or think of them as land surveyors. Don't underestimate engineers. Their imagination and ability are making your country a better place in which to live.

Lack of Interest . . .

Since the closing of Alexander College an increasing lack of interest in the meetings of the Engineering Society has been observed. At the first meeting of each year, there is a very poor attendance, but attendance at the subsequent meetings falls off, even more until in the spring term, only a few students are left to carry on the business of the society. The lack of interest and apathy is very discouraging to the executive, to say the least.

Films and speakers have been obtained to create interest, but the response has been so poor that it would be embarrassing to invite a speaker to one of the meetings. Admittedly the Engineering Society is composed of three branches of engineering, namely Electrical, Civil and Mechanical, and this fact alone causes some lack of unity and interest. However much of this could be overcome, if we had a place of meeting, where the society could assemble in surroundings more relaxing than a lecture room. Off the campus has been suggested, but no university society should have to go to these extremes.

Most clubs or societies generally have their business meetings and then serve refreshments. However the Engineering Society cannot do this in the confines of a lecture room, and this is probably one of the main reasons that the students have so little interest in the society. This may well be the cause of the lack of spirit at U.N.B. that is very noticeable at all sports events.

The students must have some place where they can meet and be sociable with one another, if the old spirit of this university is to be rekindled. A student centre is needed badly.

We have the professional men in our midst who are certainly capable of designing such a student centre. The results of their professional services may be seen in several localities in the city of Fredericton, and in the province of New Brunswick. Most of these structures are more complicated in design than any student centre would be, so there would be no difficulty in the designing of the centre that could not be overcome.

Each year there is an increased enrollment from Quebec, Ontario and points west. To keep those students here for the duration of their courses and keep other students coming in ever-increased numbers, a move is needed toward the building of a student centre. Keep the ball rolling !!!

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Canada Is Calling

By JOHN FISHER

"Canada is Calling."

Four men sat around a table in Hamilton three weeks ago. Twenty years ago they had all gone to college together. But, they had more than this in common. They all shook their heads. The small businessman with his own metal factory — well, he said it was a critical problem. The big pulp and paper executive claimed that this problem was worse than the shortage of sulphur which he must have to make newsprint. The third man had just returned from a big hydro job in British Columbia . . . "It's terrible, and it's going to get worse . . . it's the one thing that could hold back the development of Canada." The fourth man in the party is a professor of Engineering. He called this common problem — "very serious."

What is this shortage? What was the one thing these four men had in common with themselves and industry and development generally? It is the shortage of professional engineers. Canada's executives are facing a crisis. It will be worse next year — and even worse after that. There are simply not enough young Canadians taking up the profession of the engineer. And the United States is in a worse mess. She could use 60,000 professional engineers right now. Her employment seekers are knocking at our academic doors. This year — just for normal replacements we, in Canada, will need 2,000 professional engineers.

With all the developments of power, aluminium, nickel, new railroads, factories, iron ore, titanium, chemical expansion, oil — we will need more and more trained minds. Yet, look at the universities and you will see that the number of graduates is going down — down each year. According to the Financial Post we will only graduate 1700 in 1952 and at the present rate, unless we attract more students, the annual output will be down to a thousand by 1954 . . . and by that time we'll probably need 3000 a year.

Even at this moment industry has its employment scouts on the doorstep of every engineering school. I'll wager there is not a student — whether he's at the top of the class or the bottom who hasn't been approached over and over by big companies. What would have been considered fantastic wages a couple of years ago, are now being offered. Take the University of Toronto's engineering class which will graduate in June. There are 450 boys, yet, industry has posted on the bulletin board over 1100 openings. Even first year engineers can demand a hefty pay cheque for summer work. Industry has speeded up its training. The urge is on in high schools too — to get more young Canadians interested in engineering. Leaders in industry are talking about more scholarships — shorter courses. They are trying to convince young Canadian that this country is a haven for the slide rule men.

If high school students are worried as to whether this demand is merely a flash in the pan — they shouldn't. The demand for technical manpower is growing faster than our population. We are living in a technological age — every day we become more machine conscious. This is the age of plastics and nylon and synthetic things. Tomorrow, we will put one foot in the great atomic age. We will need more and more professional engineers. At the moment we have one engineer for every 500 people . . . Tomorrow, who knows, we might need one for every 200 or 150 people . . . And that means thousands of jobs each year.

Canada is at last in high gear. The developments in this country are simply tremendous. So are the opportunities. We need bright young men trained and ambitious — need them for our own progress. We need them also for the defence of our way of life. If we can get enough of the third and rising generation to throw their talents into the labs and workshops then we in the free world might raise such an industrial giant that never again would it be necessary for young men to bear arms.

— From "Westinghouse Presents", Sunday, January 13, 1952.

NEED FOR ENGINEERS GROWS

A recent survey made by The Engineering Institute of Canada has disclosed that first year registration of Engineering students at Canadian Universities in 1951 was up more than 10 per cent over 1950.

While the total enrolment of engineering students is down again this year from 8329 last year to 7509, the trend has been reversed and the number of first year registrations is 2105 as compared to 1874 in 1950. On the basis of non-veteran enrolment in first year the figures are 2086 for 1951 and 1831 for 1950, giving a net increase this year of 255 or 14 per cent over the 1950 figure.

The number of prospective 1952 graduates is down considerably from 1951. The prospects for employment of young graduate engineers next spring should be excellent. The shortage is not likely to be eliminated for quite a number of years unless the present level of engineering employment drops very appreciably in the meantime. The number of prospective graduates in 1951 was 2450, 1952 will be 1717, and in 1953 will be, approximately, 1450.

When it is considered that Canada has been absorbing engineering graduates at a rate of more than 3000 per year for the past four years, the fact that fewer than 1500 per year are likely to be available during the next four years is bound to have an appreciable effect on the economic use of engineers by industry. That there will be a continuing shortage of engineers to meet the demand in the next few years seems practically certain.

The relative proportion of total registration in different courses shows very little change from that of the previous two years.



DR. E. O. TURNER
Dean of Engineering

Message From The Dean

The year 1952 is here, and with it comes a situation unique in the History of Engineering. Never before has such a premium been offered for the services of the Engineering graduate. A steady procession of prospective employers has appeared on the Hill, and has made the Engineering staff feel more like a reception Committee than an Engineering faculty.

Now this might appear to be a student's Utopia, but on the contrary, the problem before the young graduate is often as puzzling as any he has met in his University career. When jobs were scarce, the graduate had very little choice. If a good position was offered he took it, and considered himself lucky. Now he faces the skilled salesmen of the personnel departments of many top-notch companies, and in addition he knows that the Civil Service Commission will welcome him, once he qualifies, for a degree. But he can take only one job. And for him, of course, this is a turning point in his life. It is like being offered only one item on a ten course dinner.

If you add to his dilemma the inflationary aspect in attempting to evaluate the remuneration offered, (very few of us have been able to think in terms of the ever shrinking dollar), he faces a puzzle indeed.

During the past few years I have heard many students, especially veterans with families, say that all they wish is security. To most of these students, a government job was the best source of security. Considering that Canada and the United States together now have a public debt approaching 300 billion dollars, or as Mr. Churchill would express it, 300,000 million dollars, (they avoid the word billion in England), possibly there isn't too much security in a government job. Up to now no one has been able to live very long on borrowed money without a day of reckoning.

I believe that most of our prospective graduates realize all this, and while they may have avoided any unnecessary effort in getting pass marks in their University work, they are giving some serious thought about the selection of the proper career. It is not necessary to tell them, for example, that initial salary isn't everything. As a matter of fact it will probably be two years before they are worth their salary.

There is one suggestion I might make, however. Other things being equal, they should select a position that really requires their training and education. Many firms have found that the young Engineer is a good prospect to have on their staff, even though they do not intend to use him in his chosen field. Therefore, as a general rule, the Engineering graduate should not fall for a position which can just as well be filled by someone without an Engineering degree, and the five years of training that goes with it.

Whether or not the young men leaving us now, have all the technical tools necessary for success, they will have at least, a great deal of experience in job selection. It is our sincere hope that their selections will be happy ones and that their lives will never be dull.

NEW E



Professor David I.

Dave is no stranger having graduated in 1945 with a B. Sc. in engineering. He is a Brunswicker hailing from John. Following graduation he worked with the Company in Montreal. He has been a clear Engineering member of the N.R.C. at Chalk River on the design and construction of the Atomic Pile. His present position is Assistant Electrical Engineer.



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