






**THE
MANITOBA**

P ROFESSIONAL
ENG INEER



**bulletin of the
association of
professional
engineers
of the
province of manitoba**

april, 1971



Published by the Association of Professional Engineers of the Province of Manitoba
710 — 177 Lombard Avenue, Winnipeg 2, Manitoba

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The Manitoba Professional Engineer is published under the direction of the Bulletin Committee.

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Opinions expressed are not necessarily those held by the A.P.E.M. or the Council of the A.P.E.M.

WINNIPEG, MANITOBA, APRIL, 1971

President's Message

By R. HOOD, P. Eng.

On behalf of the Association, I would like to take this opportunity to express our sincere thanks to Major J. L. Charles, P. Eng., and Mrs. Charles for the establishment of the Canada Northlands Development Award for the assistance of one fourth year student in the Faculty of Engineering of the University of Manitoba. The award is established to increase the awareness of the engineering students of the vast potentials and opportunities in the north awaiting professional engineers prepared to accept the challenge. In reality, this award reflects the contribution, effort, and enthusiasm that Major Charles himself has given to the development of Canada's northland, and also reflects the high professional standard that he has set for his associates.

The past three months has been an extremely busy and soul searching period for all members of Council. All have made considerable time commitments to the current and future affairs of our profession. I believe that the steps taken by Council, if actively and diligently followed up by the members of the various committees and members of the association at large, will provide the opportunity for this profession to maintain the high standard necessary to fulfill their legislative responsibilities.

In December 1970, a report of a Study of Engineering Education in Ontario was

published appropriately entitled "Ring of Iron." The director of the study, Dr. Philip A. Lapp, P. Eng., and his associates have in my opinion produced documentation on the subject that will form a sound basis for constructive discussion and, I hope, further action on this matter. They consider that the elements of a plan for engineering education must include the mutual influences of at least eight groups, namely: students, teachers, university, **engineering profession**, employees, community, economy, and society at large. It is obvious that we as a profession are obligated to ensure that we are in a position to effectively contribute to this most important aspect of our legislative function. In this regard, my contact with the graduating class in recent months, has emphasized to me the inadequacy of the communication between our profession and the student body, and I believe that it is mandatory we give this matter our immediate attention.

Recently, the Alberta Association completed a comprehensive study on collective bargaining for professional engineers. The study strongly recommends the rejection of the concept of collective bargaining through legally certified groups of association members, and recommends a program for their associations directed toward individual action or action by voluntary groups of members (which they estimate will cost between \$60,000 - \$80,000 per

year). Their report is an excellent documentation of this matter as seen by professional engineers in Alberta. However, it must be recognized that it has been written in a climate where voluntary relationships may still be effective and where the public and employer recognition of the professional engineer as a true professional is still a fact. This, I am afraid, may not be a fact in some of the more heavily industrialized areas of Canada. Even now, in Manitoba, the professional engineers employed by the Provincial Government are facing a major dilemma deciding which route to proceed. They currently do not have any formal communication related to their conditions of employment as professional engineers, and there is every likelihood that they will be forced into an adverse position that will not be recoverable because of lack of positive action by our professional organization.

Finally, I would like to again draw the membership's attention to the concluding paragraph of my message in the March Bulletin. The reason is obvious.



COUNCIL MEETINGS COLLECTIVE BARGAINING

Council learned at its March 2nd meeting that the Department of Labour will not be investigating a roof failure at the CFI plant at The Pas since the building is not a public building. The apparent cause of the failure was the build-up of ice on the roof from a steam and water discharge pipe. Councillor De Pauw read aloud the account of the incident that appeared in a Winnipeg newspaper and accused the press of sloppy reporting.

The application for registration from the President of an American consulting firm was discussed. Council agreed that he should be eligible for only non-resident licence or licences. Unlike other Canadian Engineering Acts, the Manitoba Act does not contain a residency clause although a residency requirement is implied. The policy in recent years has been to discourage registration of non-residents of Canada.

The Registrar read to Council a letter he had written concerning an apparent contravention of the act. An individual

had been soliciting business from local firms while implying that he was a professional engineer. Council agreed with the action taken by the Registrar.

After these preliminary items, Council launched into its monthly discussion of collective bargaining in general and the Society of Engineers of The Manitoba Telephone System in particular. After a lengthy discussion Council decided not to officially recognize the S.E.M.T.S. and also to inform the President of S.E.M.T.S. that Council does not have a policy which applies specifically to common interest groups, but that Council does have a policy with respect to collective bargaining. Other items with respect to collective bargaining were referred to committee.

Council discussed a letter from the General Manager of the EIC to all the Provincial Premiers that insinuated that government contracts for engineering services were not awarded on a merit basis. The action of President Hood in sending a strongly worded protest to the General Manager concerning this unwarranted interference in Provincial Association affairs was supported.

Council also passed a motion that APEM participate and co-operate with the EIC at a local level where there is mutual benefit and interest to members.

Draft terms of reference for the Membership Committee and the Committee on Safety in Engineering Practice were accepted.

Council postponed discussion of the remaining agenda items to March 20th. They then invited your agent to leave as they wished to discuss an issue as Committee of the Whole. As I was rather hungry by this time, I departed without protest. It was learned later that the Committee discussion lasted approximately half an hour and concerned the area of practice without registration or licence with reference to a specific individual. — R.A.H.

THE ENGINEERING IMAGE

The March 20 meeting of Council was conducted at a meeting of Committee of the Whole. Some Councillors questioned the need for your agent's presence but the general feeling was that any Bulletin reporter who shows up for a Saturday morning meeting should be allowed to stay.

Most of the meeting was spent discussing the image of the professional engineer within the profession itself, with respect to the University and with respect to the general public. It was felt that the general public sees the engineer as an honest, dependable, loyal, solid citizen with tunnel vision who fixes pot holes in roads. While this is not a bad image, it could certainly stand some enhancement.

Council believed that there should be more contact between practising engineers and students. This could be accomplished by having practising engineers conduct seminars or give lectures to the students. Some Councillors believed there was a need for a course on ethics. Council felt that it was desirable for the faculty to spend time working for consulting firms rather than operating consulting practices on their own. Councillor Newton was appointed Chairman of the University Liaison Committee in order to pursue some of these ideas.

Council discussed ways of changing public misconceptions of the engineering profession and eventually decided to direct the Bulletin Committee to seek professional advice on public relations and advise Council of the cost.

In other business, the terms of reference of the membership and safety committees were accepted and all committees were directed to review their terms of reference and report on the costs of implementing their programs by June 30.

It was felt that the annual meeting of the APEM should be the focal point of the year's Engineering activities. Councillor McBain was appointed to arrange this year's annual meeting and hire professional help as required. Several councillors pointed out that engineers were tightwads, therefore the annual meeting should be arranged so that there is free booze and free parking.

In order to demonstrate that they were not tightwads Council offered your agent a drink — it was accepted gratefully.

— R.A.H.

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PHILOSOPHICALLY YOURS

Only those are to be judged friendships in which the characters have been strengthened and matured with age.

— Cicero.

We can only pay our debt to the past by putting the future in debt to ourselves.

— John Buchan.

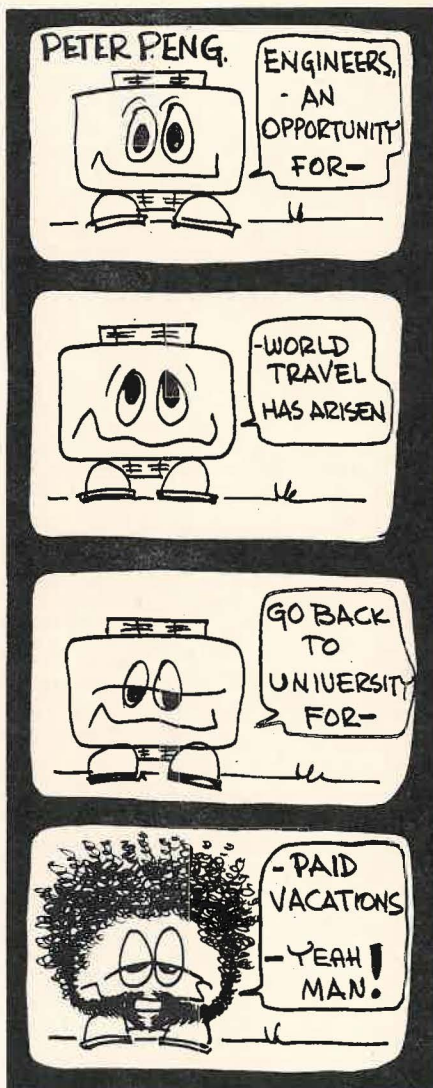
Nothing shall I, while sane, compare with a dear friend.

— Horace.

As if our touch were infectious, we by our handling corrupt things that of themselves are beautiful and good.

— Montaigne.

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TAXATION AND GOVERNMENT SPENDING

By R. J. JEWELL, P. Eng.

By now most Manitobans will have filled in their income tax returns for the year 1970 and faced that moment of truth when the calculations revealed how much they were paying Ottawa topped off by the additional 39% for the province. It would be bad enough if these were the sum total of taxes paid for the year, but of course it's only the beginning to which must be added property taxes, sales tax (of which there are numerous varieties) and many others too numerous to mention.

We are continually reminded that governments need more and more money to keep up with their rising expenditures. Obviously, there are many commitments they must meet and there are increasingly more demands for new and improved spending programs to which they must at least listen. Examples of such programs include the medical coverage with its skyrocketing costs and many of the welfare schemes recently instituted. In short, the taxpayer is faced with governments of ever increasing size, complexity and demand for tax revenue.

There is a feeling of helplessness about paying taxes, for one has very little if any ability to determine spending policy. Additionally, there are many obvious inefficiencies and considerable waste in government. Granted that our system of government is (to our mind anyway) superior to the existing alternatives, but it most certainly could be improved as far as efficient use of revenue.

In recent times we have seen both federal and provincial governments become financially and managerially involved in industrial projects. One doubts the wisdom of this in view of the many times demonstrated inability of governments to run an economically viable enterprise. There are, of course, many reasons for this which shall not be pursued here but it unfortunately does invariably happen.

Of more immediate concern, however, are schemes for spending money which appear to have no valid reason other than for vote catching. In this category falls the scheme from Ottawa to send students on paid visits overseas and around the country in the summer vacations. While the actual amount of money may be small on a national level it is the principle of

the thing and the nagging worry that a small amount here and a small amount there soon add up to a substantial total of our tax money.

Taxation is at a relatively high level and it would appear that some form of restraint by government is in order before individual incentive is weakened further. It would also appear desirable to encourage private enterprise by tax incentives rather than easily abused grants or loans; for the more enterprise, the more people employed and the more revenue to government. This also applies to people, for it is rather hard for the Manitoban taxpayer to understand why he has to pay 11% more Provincial tax than a taxpayer in either British Columbia or Ontario and 5% more than in Saskatchewan.

The present system and levels of taxation have evolved gradually and two phenomena must occur before lower taxation will occur. Firstly, there must be a recognition of the limitations of government and much less pressure applied for financial assistance for many of the non-essential "essentials" that are being demanded of the government today. Secondly, the government must vastly reduce the size of its administration and more efficiently control its operations. Unfortunately, Parkinson's first and second laws are fact, not fiction, and responsible government must take stock of the situation and act now to restore some level of sanity into the present system of taxation and spending.



YOUSE GUYS IS AS GOOD AS DEM GUYS

It is axiomatic though not flattering that we get the government we deserve. Surely the common sense index of a random sample of the population is higher than that of the unholy alliance of lawyers, undertakers and moonlighting college professors who grace our provincial and federal legislatures. The vector sum of the efforts of these legislative bodies has been characterized as equivalent to the productivity of a committee of architects.

People in beer parlours have greater world problem solving ability than people in legislatures. One school of thought

would adjourn the legislators to the beer parlour. Another possibility is to upgrade the legislators. At present less than two percent of members of our provincial parliament are engineers. Why not more?

An engineer provides an objective balance between philosophers with exotic theories on how to run other people's lives and the professional politicians for whom a debate on fuddle duddle represents the highest level of parliamentary action. Not all engineers are suitable or available for public life. For example, engineers who are civil servants who work are barred from politics, whereas civil servants who teach are welcome to try politics as a sideline.

The province would benefit from more engineers in politics. How about you?

— J.W.J.L.

♦ ♦ ♦

P. ENG.

The A.P.E.M. is giving high priority this year to improving the public image of the professional engineer. Engineers have traditionally been the quiet men of industry and government, maintaining a very low profile and staying free from public attention both good and bad.

In these times of the technological backlash, the evil in our work is receiving wide notice, but the good is remaining largely unknown because of our reticence and unnecessary modesty. While a publicity campaign with a public relations manager and mass media advertising is distasteful and unethical to most of us, the profession still must have increased exposure to remain energetic and influential.

Each one of us can help by bringing the designation "Professional Engineer," (or P. Eng.) to public attention to show just how many people in responsible positions in our province are entitled to use it. You, as an individual, can do this easily and unobtrusively, by adding "P. Eng." after your name whenever signing business letters, official documents, cheques, petitions, letters to the editor and in newspaper advertisements.

You have invested considerable time (at least 6 years), work (remember all those two o'clock mornings?), study (upwards of fifty final examinations), and

money (thirty-two or more months' lost wages) to become a professional engineer. The average worker has not. Display your hard-earned professional qualifications with the pride they deserve, hang up your certificate, use your stamp, and sign your name with the "P. Eng." — R.R.M.

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WELL SAID, SIR!

Members who act on Council and on Committees are, as a rule, dedicated people whose only purpose is to give service to the profession. Occasionally there are people whose aims are not totally altruistic—they give good service but there is some return to them, perhaps in increased business. And there are a few people whose purposes in agreeing to be on a Committee or to accept nomination for Council are difficult to ascertain. They impede the progress of the Committee instead of enhancing it.

A very conscientious and dedicated (and frustrated) Chairman of one of our Committees recently sent a notice to the members of his Committee. It should also be read by anyone whose name now appears on a list of members of a Committee but whose contribution is negligible. It should be read, too, by anyone thinking of serving on a Committee. His letter reads in part, as follows:

"After having a good turnout at our first major meeting this season, we have called 2 meetings, at which we have not had a quorum. That is, out of 16 people we were not able to get 8 persons to attend. This is extremely poor considering that we had set a regular date, time and place. In addition, we sent out a notice, with agenda, several days before the meeting and telephoned each member prior to the meeting. If you were one of the few who was prepared to come, then this does not refer to you. However, if you did not attend or intend on attending, then you should seriously analyze the commitment you are prepared to make to this committee. It is a waste of time for some committee members to gather and then not have a quorum. No committee can accomplish any useful purpose under these circumstances.

"At a time when the problems of employee engineers are acute, our committee could make a worthwhile contribution to the solving of these problems. This can

only be done by persons who commit not only their time but their energy and thoughts to the cause. It is not enough to even attend the meetings. The reports we produce must have input from all members, and this input can only be forthcoming by serious study. This has not been very evident in the review of our two recent reports.

"I wish you to give serious consideration to what contribution you are prepared to make in the future. Are your present commitments too heavy to allow you to participate? Are you prepared to commit at least one night a month to Association business? Are you prepared to give thought and make worthwhile contributions to the work we do? Are you prepared to work on sub-committees when necessary — as a volunteer and not under pressure? I would like an honest answer to these questions. If a change in the time or place would improve your contribution, please let me know. If you cannot commit yourself to this degree, I would strongly suggest that you frankly and honestly say so and allow an opening in the committee for someone who is prepared and has the time to commit himself. Engineers are fast losing ground in many areas because of indifference and lack of joint action."

Well said, Mr. Chairman!



LETTERS FROM ALBERTA

Dear Sir:

The following appeared in the "Letters to the Journal" section of The Edmonton Journal, edition of Tuesday, October 13th, 1970:

"Terrorism in Canada must be stamped out at once, I recommend the following steps be taken immediately.

1. Write an anti-terrorist bill for submission to Parliament. Time required is 30 minutes. The department of justice undoubtedly cannot do it in less than six months; therefore I'll offer to do it for free in the allotted time.

2. The bill must contain the following provisions: (a) Trial to take place within three days of apprehension of the terrorists; (b) Time allowed for trial — one day; (c) Time allowed for appeal — two days; (d) Penalty — death by hanging;

(e) Scheduling of execution — within 24 hours.

3. The execution must be public. I recommend the lawn of Parliament Hill at 12:30 p.m. in order to attract a large lunch-time crowd.

The matter is extremely urgent and must be undertaken at once. I recommend the construction of the gallows immediately. There is no excuse for delay.

107th Avenue J. H. Keating, P. Eng."

While I uphold the right of the author of the above letter to express his views, regardless of how reprehensible, prehistoric and sadistic they may be, I resent his implication of our profession by the use of "P. Eng." after his name.

For some years the Association has urged its members to use the professional designation, I firmly believe that it must be used with discretion. I strongly believe that this is a matter which should be taken up by the Act and By-laws Committee or by the Professional Affairs Committee. Possibly there are already by-laws relating to this matter, in which case examination should be made by the enforcement committee.

Perhaps you would publish this letter in the next edition of THE PEGG so that further discussion and/or action would be stimulated.

Yours very truly,

H. D. Noyes, P. Eng.

Editor's Note: We have culled the above letters from the Alberta Association publication. Alberta is really a have-not province — no sales tax, no high income tax, no imagination and no sense of humour. Think of the possibilities, once one had overcome the hurdles in meeting the "extreme urgency," as suggested — hiring consultants, preparation of supply and installation documents, bid bonds, performance bonds, ad nauseum. We think our Parliament building grounds would provide a much more scenic setting for the gallows and once the terrorists had been disposed of, the public could be invited to submit the names of candidates for the lunch hour entertainment period. The ladies could even bring their knitting — shades of Madame Dufarge.

SOCIAL RESPONSIBILITY IN ENGINEERING

By N. P. FESCHUK, P. Eng.

On February 18th, a meeting in Room 339 Engineering Building was called by the E.I.C. Winnipeg Branch to discuss Social Responsibility in Engineering.

At the appointed hour a head count was taken by the organizing committee and it was decided that since the audience approximated the size of a 4-man panel, it would be advisable to move the proceedings from the stern, no-nonsense-looking 180 seat lecture theatre referred to as Room 339 to something more suited to the size of the gathering. After overruling numerous suggestions that the meeting should be moved to the Faculty Club, U.M.S.U. refreshment centre, or at least the Montcalm, the organizers decided that the Engineering Faculty Room would be suitable.

Once settled in the Faculty Room with all its comforts, Russ Hood, moderator, apologized for the delay and announced that due to illness Mr. D. A. Thompson, Q.C., would not be able to attend. Dale Gibson, member of the Faculty of Law had agreed to substitute for Mr. Thompson.

Since Mr. Gibson was the only non-engineer panel member, Mr. Hood asked him to start the proceedings. Mr. Gibson cautioned that he had only a few short hours' warning about the panel discussion and since the less time a lawyer is given to prepare the more time it takes him to say it, he may go over his allotted time. Mr. Gibson went on to state that he disagreed with the three traditional responsibilities of a professional responsibility to his client, to the community, and to his professional colleagues. He felt that if the duties to the client were in conflict with a professional's duty to his community that the interest of the community should be given preference. "There is a point where duty to the community overrides duty to the client" stated Mr. Gibson, "You don't have a professional responsibility to keep a future injustice secret. If you know that your client (or your employer) should provide, for example, pollution control equipment and he chooses not to, your overriding duty should be to your community and you should strive by whatever means possible to get the equipment installed even if it means the loss of your client."

Mr. Gibson felt that professionals took a closed minded view of politics and say that we don't touch anything political. Mr. Gibson went on to say that the professional should get involved in his community. "If you can't take part directly in school boards, municipal governments, or other active forms of politics then you should be working in the backroom. Professionals should speak out publicly on issues that they are knowledgeable in. The professional has a right and responsibility to take a stand on issues even if it is in conflict with his client or employer's interests."

"The professional has a responsibility to be critical of his own profession. It is the duty of the professional to get rid of incompetence. To suggest that your colleagues deserve special consideration is wrong. It is unfair to the public. You have no special duty to your professional colleagues except that which you have to any human being. If a member of the profession is disciplined the public has a right to know. It shouldn't be covered up or hidden." Mr. Gibson stated that he would substitute responsibility to professional colleagues with responsibility to the professional's family since he felt that many professionals tended to be occupation conscience with the result that the professional's family suffered.

Dr. A. M. Lansdown, Head, Civil Engineering Department, University of Manitoba spoke on responsibility to whom? "Many tend to feel that if their actions are suspect but not covered specifically by the Code of Ethics that everything is O.K. Some tend to use the code as a recipe. This is wrong." Dr. Lansdown felt there was a need for the professional because of the complexity of our technology today. "The engineers will have to look closely at professionalism and politics since it is essential that the profession look at influencing the decision makers." Speaking on instilling professionalism in students, he felt that this was difficult unless it could be done by informal contacts between students, teaching staff and practising engineers. Dr. Lansdown went on to say that perhaps we should spend a little time considering what professional engineer means to the general public.

Craig Sommerville in preparing for the panel discussion looked into his J.I.C. (just in case) file and pulled out one of his previously prepared speeches. He stated that he felt it was a very good

speech and it was indeed unfortunate that format of the meeting did not allow him to read it in its entirety. "As engineers we have helped to create problems. Pollution, sonic boom, and the big cities. The public thinks engineers are people who like beer, drink milk, enjoy their families and are generally aimless, harmless, intelligent slob. Nine out of ten of us are conservative in politics. We accept society and are indifferent to long term social gains." Mr. Sommerville felt that this image will have to change.

W. R. Newton like Mr. Sommerville had brought a prepared speech and was sorry that he couldn't present it. "Engineering as it stands is not living up to the expectations of society. In serving society we engineers work in a 4' x 8' drafting board world. Traditionally, we have said you tell me what you want and I will build it. We are passive, silent, and have a Sons of Martha Complex." Mr. Newton stated engineers of thirty years ago were better equipped to meet the less demanding problems that existed then than the engineers of today are to meet today's problems.

Dean Hoogstraten questioned whether the engineer had a far greater problem in projecting a public image because they were a much larger group than the lawyers and had less client contact with the public. Mr. Gibson felt that this was true. Dean Hoogstraten went on to say that the public need not concern itself with getting value for services. "Engineers ensure that their clients get the maximum benefit of every dollar they invest."

Kees Vogel felt that an engineer should state all the alternatives that are available in any development but the final decision as to what should be used rests with the politicians.

Nes Mudry questioned whether the responsibility to your family would not sometimes come in conflict with your responsibility to the community. Mr. Gibson felt if a professional was earnest in his convictions he would probably find a way to express to his client that the community's interest should come first before that of his client's without placing any strain on his responsibility to his family. Dean Hoogstraten said that it is senseless in many cases to quit to make your point. It may be better to stay in the organization and try to change its attitudes towards the community.

Russ Hood felt that there was a duty that was overlooked and that was the duty of the professional to himself. "Many of the things that a professional does have to be guided by is his duty to himself. Many engineers, for example, feel that pollution to a certain level is not harmful and others would feel that the same level would be devastating. In many instances, the profession cannot set guidelines. A professional must set his own."

Glenn Morris questioned whether professionals working in what are tantamount to closed shops was good for the public. Mr. Gibson felt it wasn't and that the practice of policing the performance of the professional by setting minimum fees was wrong. "If you are going to police the competence of the profession do it by maintaining standards not through a minimum fee structure." Mr. Gibson felt that restrictions set by limiting enrollments in facilities, residence, and citizenship requirements for membership in the professions were not in the best interest of the public.

W. H. McKay was concerned that the lack of identity and unity in the Engineering Profession may lead to unionization.

C. R. Bouskill didn't like the Code of Ethics recipe attitude.

S. J. Kustra didn't feel the Association really did protect the public's interest. Mr. Hood assured him that with the new by-law in effect the Association would be in a position to take more positive steps in this regard.

Israel Spector questioned whether engineers were honest with themselves. "Most engineers are against pollution. But each one of us came here in separate cars. Do you make sure your wife only uses non-phosphate detergents?"

In thanking the panel members Nes Mudry pointed out that the University of Manitoba, the Association and the E.I.C. Winnipeg Branch were jointly sponsoring a conference on Social Responsibility in Engineering to be held in the Fall of 1971.



ENGINEERING EDUCATION

It was recently announced by Council that a University Liaison Committee has been established

"to provide a formal and positive relationship between practising engineers and the academic staff of the engineering faculty of the University of Manitoba, and

to assist in the development of the activities of the engineering faculty relating to the future needs of society and the engineering profession."

It has become increasingly apparent in the last few years that with the advent of technical schools such as the Red River Community College, engineering technicians are coming to play a far greater role in engineering. The technologist course at Red River Community College is presently two years in length. However, recent trends in the U.S.A. as well as in Canada indicate that we will see the establishment of four year courses in technology leading to a certificate or a degree in technology.

With the graduates from two year courses in technology taking up junior positions in the field of engineering, it can be expected that the four year graduate, because of his more intensive training, will take his place at a higher level.

Presumably the difference between the university trained engineering graduate and a technical college four year graduate technologist will be the amount of non-technical material each is exposed to in their respective courses. It is expected that the graduate of a four year technologist course will be trained in much narrower field and therefore it is argued that in his respective field he can be expected to be better trained technically than a university graduate.

Questions that immediately arise are what is engineering? What is an engineer? Do we need university trained engineers if technical schools are going to graduate four year technology degree graduates? Does the field of engineering require graduates of a four year technologist course?

The cost of secondary education has risen phenomenally. For example, the per student cost at the University of Manitoba has risen from \$1425 in 1964-65 to \$2330 in 1968-69. Although technical college per capita costs have risen as rapidly, they are, I am told, not as high. Many supporters of the technical college programs use the argument that since the per student cost of technical colleges is lower than

the university that they should be given the public funds for all technical training including that for engineers. From the taxpayers' position, with escalating education costs taking a bigger part of the tax dollar each year, the technical colleges' supporters argument makes sense.

It would therefore appear that education in the engineering field requires careful and serious study by the profession. For a start, the University Liaison Committee should look at education in the engineering field both at the University and the technical college level to determine if both should provide this training and if so set forth recommendations as to the type and degree of training to be provided by each institution. — N.P.F.



P.R. AND YOU

Recently Council has expressed concern over the lack of publicity the profession has been getting. In an effort to get a little coverage for Peter P. Eng. in the press, Council has volunteered the function of publicity for the profession to the Bulletin Committee. In a moment of zealous enthusiasm over the prospect of getting one up on the architects, they almost voted some money for this purpose. Almost.

Much of P.R. that the profession will get will come from you. If you are going to present a paper or are arranging a meeting at which a member is going to speak and you want some press coverage, there are a few things that should be done.

First, send advanced written information on the meeting including names of speakers and topic (plus an abstract if it is available) to the press, radio and TV. Invite the press to the meeting. Have typewritten copies of all the speeches available for the press. Ensure copies are legible, contain details as to the authors' name, profession, occupation, and audience to which the paper is to be presented. If the paper is long include an abstract. Arrange to have speakers and organizers available for interviews. Remember both the electronic and written press has only limited man power. In order to get maximum utilization of their reporters, the press takes the path of least resistance. Therefore, the more that you can do to

make reporting the meeting convenient for the reporter, the more chance you will see it in print. Should a reporter fail to show up at your meeting, send details of the meeting and copies of the papers to the press. Much that you see in the business supplements of the local press comes from speeches or material prepared weeks previously. If you wish to have pictures included have these available. This means that in the Winnipeg area you would require to have at least five or six copies of everything you wish to give the press. Frequently more than one reporter per paper comes to a meeting. And if you are wondering, a reporter's pay is rather small. So if your meeting is a banquet affair throw in a free dinner and a few Pepsis. If you do all this you might even get some coverage in the Professional Engineer. — N.P.F.



PERSONAL REFLECTIONS

How long is it since you stopped to think why you are too busy in your daily routine to have time to do anything else? Is there a valid reason, or is your situation merely an application of Parkinson's law, whereby the time to do a given amount of work can always be expanded to fit the time available for working?

How often have you been too busy to do anything else and you are suddenly faced with a situation that cannot be avoided, and that you know is going to be time consuming? Yet how many times in this situation have you been able to accommodate this extra work and within a few days it is an accepted part of your workload? Merely a modification to the application of Parkinson's Law!

It has been said that we do 95% of our work by habit — subconsciously if you like — like driving a car. Only 5% of our duties require conscious effort. And yet we will all agree that without improving ourselves we are going backwards (for one can never remain in a given equilibrium). Thus it would appear that overall we spend 5% of our time attempting to improve ourselves, and 95% "coasting" which only occurs when we are going downhill.

A well known philosopher once said "If everyone spent 15 minutes each day in thought as to how to improve his lot, or how to save time on his daily routine,

then the worldly information would be doubled inside 10 years, and everyone would be working a 3-day week." I don't know how he worked out his 10-year period, but the 3-day week sounds good. If you can find 15 minutes to think about improving your efficiency every day, you are only going to need about 2 "bright ideas" a month to put you way in front of the 95% - 5% bracket.

If you can sell these ideas to your boss, or implement them in your office's routine, then many people will benefit from your 15 minutes thought. But remember, when selling these ideas, the salesman's most important question, and one we can all ask ourselves. Look in the next mirror you pass and ask the reflection you see "Would you buy anything from that person?" Would you? — R.S.



PEACOCKS STRUT AT THE BALL

Andy Baracos won the prize for the most elegant plumage at the Peacock Ball and the Committee, chaired by Dave Duncan won accolades for arranging such a good function in spite of what seemed like a lack of co-operation from the Inn. The service left something to be desired and when the word got out that two cases of wine were returned to the Commission unopened because of it, there were tears in a few eyes. The Social Committee certainly showed imagination in selecting the theme and in choosing the menu.

Of course there are those who prefer a formal dance and there are those who prefer it to be informal and there are those who prefer it to be a mixture of both, and the Social Committee heard from all sources. In commenting on this, one sage, who is also a past chairman of the Social Committee, said, "As to some people liking one type or another, I don't think there is anything that will please all engineers except for sex and money." So the Committee can mull that one over when planning the next function. Meanwhile thanks to Dave Duncan, Bryan Norrie, Bryan Johnston, Don Brown, Ed Pentland, Bob Foster and Larry Morison. As a reward for having paid the highest price for the fewest minutes, George Pratt has been added to the Committee. He arrived at the ball, bought 8 drink tickets, was paged and advised that his child was sick at home and he and his wife left, without

even having dinner. He figures the one sip he had of his drink cost him about \$10.00 a drop. We will all be waiting with anticipation to see what sort of a sex-money theme the committee will come up with for next year to try to please everyone. — S.J.A.

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MY WIFE MADE THE FIRST MILLION NOW I HIRE CONSULTANTS

It's time! The second million was easier to make than the first. We started in a small way when we learned that pennies could be saved by buying cigarettes in cartons rather than individual packets. By increasing consumption we could buy more cartons thus increasing our savings.

This simple business procedure was then applied to clothes. As a labourer in the old country I wore a coat when cold and took it off when hot. By prudent study of the sales, we found that our savings could be increased fourfold by buying four coats, justifying the extravagance by naming them after the four seasons. The savings accumulated and my wife extrapolated the process by applying the principle to furniture and houses. We added children to accelerate the progression to the third and fourth power.

The savings became so great that we opened a purchasing department and hired a lawyer to write specifications. As the savings piled up I began to feel insecure. Was I truly buying the lowest bidder or did I sometimes temporize and use judgment? To keep on the right path I hired consultants who confirmed what I already knew. Now I have the world's largest fleet of aircraft frames. Next week I will be seeing the government about a subsidy to help me buy the engines. Companies wishing to bid on the supply of aircraft engines may obtain specifications from the consultants. — J.W.J.L.

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DON'T TRUST ANYONE OVER?

We've noticed that the slogan of the radical youth wing on the American New Left has changed from "Don't trust anyone over 30" to "Don't trust anyone over 35." The reason apparently is that the inevitable has happened and several of their leaders are either approaching or have

passed this terrible age. Can anyone guess what the slogan will be five years from now? — R.M.S.

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EXPENSIVE WOMEN

The Royal Commission on the status of women accomplished one thing — it cost the taxpayers two million dollars. The members of the Commission, largely women, proved one thing. They are a luxury the taxpayers can't afford. If this is the sort of effort that women produce for two million dollars, their rights should be limited. Two million dollars would have built quite a lot of low cost housing or paid for substantial public works programs.

Certainly there are inequities in this world for some women. There are also thousands of them wearing mink coats, driving their own cars, going on global tours — all paid for by men. There are also some pretty raw deals handed out to some men, often by women. And many children, who have in no possible way contributed to their own plight, lead sorry lives, some of them beaten and neglected by their own mothers. Women may share some of the inequities of this world but they also contribute to some others. And it's doubtful if any royal commission is going to change human nature or human hearts.

From an engineering point of view it is difficult to take this Commission report very seriously. Certainly it could be said that the men who work in the engineering departments of the public service, by and large, earn more than the women. But it can also be said that if the men are engineers who have spent four years and considerable money acquiring a degree they are worth more than the girl who has high school education and does the filing. Certainly it can also be said that there are many many more men hired as engineers than women. Whose fault is this? It would likely be possible to count on the fingers of one hand the number of girls who have graduated in engineering from the University of Manitoba in the last 50 years. And yet girls have as much opportunity as boys to enroll in engineering. They do go to college in droves. If they would rather take home economics that's their choice. No one seems to fuss and fume because there are few male nurses or home economists in this country. That's their choice.

The women on this Royal Commission may never have had it so good, and few men in this country have ever had it that good. How many men earned as much last year as the members of this Commission. Millions of men did menial, unpleasant, boring, dangerous or tedious work for nothing like the money these ladies earned for touring the country in first class style, making notes.

It is questionable whether very many engineers want their wives to be fussing over equal rights. Surely what makes marriage interesting is the difference. Fortunately it was not this Prime Minister who set the wheels in motion for this mound of verbiage. Mr. Trudeau seems to prefer his women to be ladies, and very feminine, so perhaps it is not too optimistic to hope that he will file this report away as a mistake made by a previous administration, and we can go on regarding the women in our lives as gentle, kindly, different, feminine creatures who should be loved and sheltered and protected and who are just dumb enough to make us look smart. — S.J.A.



WE AWAIT YOUR REPLY

In the November issue of our publication we carried two articles about the CBC. We wrote to E. B. Osler, M.P. for Winnipeg South Centre and Chairman of a Commons Committee on broadcasting, and in our letter we brought these two articles to Mr. Osler's attention, along with another article entitled "Who is Destroying My Freedom?" dealing with the invoking of the War Measures Act, which was topical at that time. We enclosed a copy of our publication with our letter.

A copy of this letter and an issue of our Bulletin were also sent to each Manitoba Member of Parliament and to the Prime Minister. Our letter was dated November 12, 1970. H. A. Lawless, Correspondence Secretary for Mr. Trudeau acknowledged receipt of our letter. We also received a letter from Walter Dinsdale, M.P. for Brandon-Souris, thanking us for the material we had sent him and commenting that, "I was particularly interested in reading Mr. Newton's article on freedom, for it expresses many of my sentiments . . . I am taking the liberty of enclosing recent comments made on the subject. If you would like to receive the Candid Comments regularly you have only to

request it." Craig Stewart, M.P. for Marquette, also thanked us for sending him a copy of our publication and said, "I found the two articles dealing with the CBC most interesting."

We are still waiting to hear from the other M.P.'s, including Mr. Osler, to whom our letter was addressed. — S.J.A.



DOING YOUR OWN THING

In a letter to one of Canada's other great publications, The Toronto Globe and Mail, Donald V. Smiley, Professor of Political Science, University of Toronto, comments in part as follows, in dealing with the War Measures Act: "But perhaps the most crucial danger to the democratic system is the gospel that the end of life is to 'do your own thing,' or as Mr. Trudeau boasted in 1967, 'I have never been able to accept any discipline except that which I imposed upon myself.' Some of us have found it both necessary and satisfying to accept other disciplines — of military service, of family life, of getting and keeping a job, of being law-abiding citizens of a law-abiding community."

And we might also add, disciplines of religion, of philosophy, of professional codes of ethics. As Mr. Trudeau has no doubt himself learned since 1967, self-discipline is only safe in the hands of very, very responsible people, of which there are, alas, too few. In the hands of others it can lead to "apprehended insurrection," violence, "kidnaping and murder. Mr. Trudeau appears to have learned a few hard lessons in the last three years. It was he who invoked the War Measures Act. Doing your own thing may be fine for one man on a desert island, but in a democratic society it is far too often done at the expense of the man next door. — S.J.A.



Is it really true that strangers to an office can always find the engineering section by looking for the fellows wearing the narrow ties and white socks?

Does your heart burn with envy for the self-employed man? Does the tyranny of bills, buzzers and clocks get you down? Find a new dimension of life and freedom in your present job! Go to work half an hour late twice a week; it will give you the illusion of being your own boss. Illusion nothing! Keep it up long enough and you will be. Magic.

CURLING FINALS

Larry Morison skipped Harold Wilson, George Pratt and Bob Zimmerman to victory over Larry Greer, Charlie Main, Doug Grimes and Ken Norell. A sell-out crowd watched the final match, the proceeds from which will go to the Doug Grimes Research Foundation, as a great deal of interest was generated by the report in the last issue that Doug had run into a lady in the locker room at the Highlander wearing only a towel. We received several calls asking who was wearing the towel — Doug, the lady or the Highlander and how did the observer know she(he) was wearing nothing but a towel. Tune in for the next exciting chapter. — S.J.A.



NEW MEMBERS

The following have been admitted to membership in the Association: N. Fenton, W. P. Fraser, E. A. Konzelman, D. E. McCaffrey, R. G. Marshall, J. Z. Metrycki, K. B. Meurer, J. R. Muir, T. G. Pyper, J. E. Skinner, L. J. Whitney, A. Zerbin, R. L. Brown, B. Netupsky, M. L. Burggren, M. Hamid, H. M. Hamilton, A. C. Hope, A. M. Lepine, S. Onyshko, J. F. Stoddart.



PREPARE YE FOR THE CONFRONTATION

That the minority shall be heard and that the majority shall govern is the basic democratic rule of running a business meeting. By this criterion our November 1970 general meeting must be judged a success. Engineers are notable for self discipline so strict adherence to Parliamentary procedure can well be tempered with good judgment by the chairman. However if the judgment is questioned the Association uses Bourinot's Rules of Order. These rules lay out a procedure of behaviour to ensure a balance between a fair hearing for all and expeditious conduct of business. The increased activity of protest groups make a sound knowledge of Parliamentary procedure mandatory for all chairmen. Learn about parliamentary procedure in the friendly atmosphere of a Toastmasters Club. Choose your evening and ask one of the following to tell you more:

Monday — Dave Farlinger, 256-5473
Tuesday — Bill Kennedy, 284-5350
Wednesday — John Lewis, 269-1611
Thursday — Bob Halliday, 269-2056
In Thompson — Bob Quenett, 677-3402



ASSOCIATION AWARDS

J. D. Adam, P. Eng., Chairman of the Awards Committee, has asked that the Terms of Reference of the Association's awards be published and that the membership be asked to submit names of possible recipients before June 1, 1971. Recommendations should be addressed to the Chairman of the Awards Committee at the Association office.

THE MERIT AWARD

Its purpose is to recognize outstanding achievements by engineers of Manitoba and the award may be made to an individual or to key members of a group. The basis on which merit for an award may be judged shall be: A contribution to the literature showing outstanding scholarly achievement; Magnitude of works successfully completed; The pioneering achievement in fields of engineering or of engineering application; Outstanding public service.

LIFE MEMBERSHIP, HONORIS CAUSA

The Award may be granted to a member who in the opinion of Council rendered meritorious service to the Association, who is no longer practising on a full-time basis as a Professional Engineer, and who has preferably been continuously a member for not less than 35 years and has attained the age of 65.

OUTSTANDING SERVICE AWARD

Recipients shall be members of the A.P.E.M. who have performed outstanding service on any committee of the Association, or on the Certification Board or the Panel of Examiners of M.S.C.E.T.T. Inc.



SEVENTH E.I.C. REGION II TECHNICAL DEVELOPMENT PROGRAMME

The Seventh Engineering Institute of Canada Region II Technical Development Programme will be at the University of Manitoba from May 10 to May 14, 1971.

This will be a programme of courses for all branches of Engineering in Manitoba. Subjects will range from specific topics such as integrated circuits to general topics such as report writing. The following courses will be offered:

- Integrated Circuits
- Law for Professional Engineers
- Structural Connection
—Behaviour and Design
- Technical Communication and Report Writing
- Automatic Process Control
- Groundwater Hydrology
- Noise Control
- Plastics—Engineering Applications
- Cultural Ecology
- Ice Processes on Lakes and Rivers
- Analogue Computers
- Industrial Waste Treatment
- Paint Technology

The first four courses listed are of 5-day duration, the next five of 4-day duration and the remainder of 2-day duration with the exception of Ice Processes on Lakes and Rivers which is 3 days.

Tuition fees are \$50.00, \$65.00, \$80.00 and \$95.00 for 2, 3, 4, and 5-day courses respectively. Registration brochures are mailed to Association members. Others may obtain brochures by applying to:

**Professor E. Shapiro,
Extension Division,
University of Manitoba,
Winnipeg 19, Manitoba.**



A MAN'S A GENTLEMAN FOR A' THAT

Councillor George De Pauw took a determined stand in a minority position opposing the principles of the Association's new discipline by-law. Although he was forceful and enterprising in putting forth his views, he was unable to successfully communicate his ideas first of all to Council and then to the membership.

Most of us have experienced the frustration of having our concepts and theories misunderstood, sidetracked, blocked or ignored. How do we react when this happens? Are we able to feel and act as nobly as when we have just grasped victory?

After George's failure to convince the

membership over the musical din at the Annual Meeting he acted with equanimity and magnanimity to all who were opposed or indifferent to his campaign. His behaviour was the epitome of gentlemanliness—a quality highly valued by professional engineers.—K.M.J.



WHAT'S A FLUSH TOILET, MR. TRUDEAU?

Even though it never caught on as decor on sweat shirts or drinking mugs, the Prime Minister's most quotable quote (prior to "Fuddle Duddle") was probably his pronouncement that the government had no business in the bedrooms of the nation. Since we were not deluged with letters to the editor from our members on this subject, we assumed that by and large they agreed with the P.M. that henceforth bedroom shades would be drawn. It is, therefore, more than slightly disconcerting that he is not going to extend this same privacy to the bathroom. The government is apparently not concerned with the number of "gay" types there might be in the country, but it is interested in the number of flush toilets. So unless Mr. Diefenbaker can put a stop to it before the census takers start on their rounds, the privacy we have heretofore enjoyed in our bathrooms will go down the drain.

Besides reaching the conclusion that the federal government is becoming somewhat schizoid, we are ourselves faced with a dilemma. How many flush toilets do we have? The penalty for evasion of answers to the questions of the census takers is not to be taken lightly. But how can we reply to a question when we aren't sure ourselves of the answer. If only the government had set out to get this valuable information two months ago the answer would have been simple. We had two flush toilets—one in each of two bathrooms.

Seven weeks ago one of them ceased to function and all my engineering skill could not restore it to proper operation. So my wife summoned the plumber. Under our Standard Form of Agreement between Engineer and Wife, she pays for plumbing repairs out of the generous allowance I give her. The repairs were \$39.68, for 65 minutes' work, minor parts and considerable conversation. My wife consulted the schedule of Minimum Fees for Professional Engineers and found that while plumbers

had been updating their fees regularly, ours was dated 1965. "There will be no more plumbers here until you are earning at least as much as they are," she announced tersely.

A week later the toilet in the other bathroom ceased its normal operations. By removing the top of the tank and moving various parts, and adding a pail of water, my wife discovered that nominal use could be made of the toilet. But does it qualify as a "flush" toilet? I have written to Ottawa to ask for the specifications covering flush toilets and have received no reply.

I contacted Doug Grimes, chairman of a committee charged with revising the A.P.E.M. fee schedule, to see if there was any chance our fee schedule might be revised and my wife might remove the embargo on plumbers before the census taker calls. Doug held out little hope.

So when the census taker calls and I cannot give an unequivocal answer to his question about the number of flush toilets in our house, I may be off to the pokey. At least I will be in good company. Mr. Diefenbaker may be there and Shaun Herron says he is going to jail before he will answer such questions.

I do not mind government intrusion to my front porch when the mailman delivers bills and unsolicited advertising circulars, and I am reconciled to relinquishing the kitchen table for several hours a year to Mr. Benson as I try to work out my income tax, filling sheets of blank paper with minus 28%, plus 39%, add the lesser, etc. etc. But it is too much to lose the privacy of my bathroom. — S.J.A.



LET'S HEAR IT FOR INHIBITIONS

Freud identified only sex and protection of the young as instincts of humans. The idea of curbing or restricting these instincts has never been met with much enthusiasm. That is why inhibitions—often viewed as restraints against these instinctive impulses—are generally looked down upon. A person without inhibitions is thought to be in an enviable state, freed from restraining complexes and artificial doubts. Why nurture inhibitions if they serve only to slow down your sex drive and interfere with your self-protection?

Some of the newer anthropological studies have, however, shown that the acqui-

sition of territory is an instinct present in nearly all animal species including man. In fact, the need to establish a home ground has been demonstrated to sometimes take precedence over the Freudian instincts. Here then is an instinct that if allowed to run unchecked could cause conflict between both individual men and nations of men who covet the same territory. It is not difficult to imagine that a great number of conflicts and "wars" stem from this one instinctive drive.

Perhaps inhibitions are necessary to minimize this force in our over-crowded world.

Robert Ardrey in his book "African Genesis" raises another hair-raising possibility. In the archaeological search for the origins of man, a killer ape has been discovered who is a very possible ancestor of man and who roamed the African heartland for hundreds of thousands of years, surviving only by his ability to kill with weapons. It is entirely possible that present-day man has inherited an instinct to kill from this long lost ancestor. Man's attraction to violence seems to lend credence to this possibility. "Thou shalt not kill" may be intended to strengthen inhibitions against a rooted instinct.

We should cherish our inhibitions which constitute the thin veneer of civilization. They should be strengthened and supported at every opportunity until the inhibitions themselves become instinctive.

— K.M.J.



TELEPHONE POLL

By popular request the Bulletin is beginning a series designed to present a sampling of engineering opinion on urgent and controversial questions of the day. This column will be a forum for applied science opinion. Questions are asked over the telephone of randomly selected members of the Association. The results are carefully condensed and tabulated into a form that can be easily understood.

The following is the first question asked: "What do you think of instituting a series in the Bulletin designed to present a sampling of engineering opinion on urgent and controversial questions of the day—a forum for applied science opinion?"

Since the majority of those telephoned gave a negative response to the question this will be the final article in this series.

— K.M.J.