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Engineers Again

This issue of "The Brunswickian" brings to light another effort by the largest and most representative group on the campus, the Engineers. For the third successive year this prominent faculty, quite frequently attacked as inarticulate and illiterate, has sallied into the journalistic world to prove that it can build a bigger and better Brunswickian as well as bridges. In contrast to previous faculty editions, the policy of this special issue has been to present articles written by students only, of general interest to all students of any faculty. Highly technical material and abstracts have been suppressed, with the belief that they belong to the classroom and professional gathering. Instead, the attempt has been made to show that the Engineer can be quite at home outside his customary atmosphere of theoretical calculations and experimental data. It is unfortunate that the specialized Engineering education of today necessarily excludes a large measure of broadening studies; for the wise student can not afford to lose all contact with the humanities, psychology, civics, economics and languages as much the basic tools of the professional man as calculus. The Engineering Brunswickian can therefore be a medium of expression for those students of the Engineering faculty who desire to maintain lucidity of expression for other than laboratory reports.

The distinctive features of this issue, chiefly pages of daily-tabloid size, giving the equivalent of nine and one half pages of regular Brunswickian, and a newly-drafted set of heads, together with numerous pictures, and no extra advertising, add to give a novel and original edition that the Engineers are proud to call their "Super-Brunswickian". To the staff, whose combined efforts produced this achievement and to the untiring zeal of the managing editor, must go a great deal of credit. Congratulations are also due the Engineering Data committee for their highly successful venture, that made financing of special features for this edition possible. The editor wishes to thank all those who in any way aided in the preparation of this third "Engineering Brunswickian."

Co-op Houses

Co-operative houses have proven most successful at many Canadian universities, and articles commending them appear frequently in contemporary journals. Co-operative plans are to be strongly recommended to the students of U. N. B., who enjoy Residence facilities for only fifteen percent of the male student body, and none whatever for women. Offering lower board and numerous advantages over private boarding-houses, the co-ops have functioned most efficiently at Queens and U. of Alberta. Enterprising groups of students organize shareholders to rent a suitable building and operate it under a residence plan. Officers are elected to govern the enterprise, review yearly applicants for admission, and appoint a student manager to run the house in a manner most satisfactory to the inmates. Many houses have a Don, chosen from among the faculty, as counsel; but the responsibility for all regulation lies entirely with the students. The type of meals and living conditions are determined by the inmates themselves, and through co-operative effort, at lower cost. A married couple are generally employed to prepare meals and maintain the house, cleaning and other light duties falling to the inmates in order to keep expenditures low. Each house has its magazine and photograph record funds, and a snack canteen. Board at the Alberta co-op house has been kept as low as \$25.00 per month, with funds remaining at the end of the year being turned back to the members.

Plans might well be devised for either men's or women's co-operative residences, of perhaps twenty members, at this university. Initiative and drive are needed to begin any such undertaking, and it would be necessary for a group of responsible Juniors to band together, gather members and draw up a charter. A building now exists in town that might well be adapted to make a suitable student house for the coming year. Full details of a successful co-operative that has operated at Queens for three years may be obtained by writing Science '44 Co-operative, Incorporated. A male institution, it has recently stimulated the formation of a counterpart for women, and the

S. C. M. at Alberta has likewise proposed a women's co-operative at that university, following the lead of the men. The small co-operative residence, financed entirely by its student members, has proved itself on other campuses. To our more resourceful students, who know what they want, and can attempt to get it, the co-operative plan is suggested for serious consideration.

Local Branch Feasible

Consideration has been given lately a proposal to establish a Fredericton Branch of the Engineering Institute of Canada. While there are sufficient members in the vicinity to do this, it has been thought advisable due to the press of present day conditions to wait until after the war. Such a move would undoubtedly prove of advantage to the students at U. N. B., since the Junior section of a local Branch would offer greater opportunity for contacts with practicing engineers than does the University Engineering Society. Enrollment with the Institute and receipt of "The Journal" provides a valuable opportunity for the engineering student to become acquainted with the responsibilities and obligations of the profession, and a closer co-operation with the Institute and its activities through a local Branch is to be warmly recommended to the Student Members of the Institute.

Flight Sergeant Richards

The Engineering Class of '44 have learned with the greatest sorrow of the death of a well-known and widely-liked member of the "old guard", Flight-Sergeant James Richards, of Saint John. As a member of the original group of Engineers who climbed The Hill in the fall of 1940, Jim made many friends on the campus, and was a most popular member of his class. Leaving the University in his Sophomore year, Jim joined the ranks of the Royal Canadian Air Force, and went overseas as a bomber pilot, to carry the war into enemy territory. A brother, Alvin, is further pursuing this goal, with 15 bombing raids over enemy territory, as a sergeant air gunner with the R. C. A. F., and two other brothers are also in the services. To the parents and relatives of this intrepid airman the sympathies of his classmates are extended.

MUMMERY

By Jabes
Edmonton Street Cars

I recently visited the city of Edmonton, and thought perhaps you might be interested in a thumbnail sketch of the city. If so, and if you know where I can get a clean thumbnail cheap, I'll be happy to offer you my own remarkably biased impressions of the unsuspecting mummy.

First of all, there are the street cars. In my travels over this continent, I have made an exhaustive study of street cars, both male and female, and consider myself a well-informed on the subject. Just waiting for somebody to lower a bucket into me.

In Edmonton, for instance, as in practically every city in Canada except Vancouver, the street cars are equipped with stoves. These reduce the number of occasions on which it is found necessary to chip the passengers out of the car with an ice pick in the winter time.

During the rash hours, however, the car is often jammed with the stench of burning flesh, as some poor devil in jostle gets the hot plate. During January and February the restaurants feature a special dish, "Pineapple Cucumber," which is said to taste quite good when served with a side order of boiled transters.

The Edmonton street cars have other little idiosyncrasies which cause strange to us night pulling positively on their lower lips. Instead of a number they have color combinations on the outside: a red and white cardboard placed above the windshield. Thus a piece of white cardboard means, "This car goes to South Edmonton." A red and white cardboard means, "You think this car is going to stop for you, you're nuts, while an all-blue cardboard means, "This car doesn't go anywhere, but the motorman has a large family and needs the money."

The main flaw in this system lies in the fact that if a person is color-blind he is liable to spend the better part of a lifetime climbing on and off cars without ever reaching his destination.

When one considers that 4 per cent of all males are partially color-blind, and that there are approximately 80,000 motor cars in Edmonton, it can be easily seen that for 2,800 of these males transportation is a pretty hideous nightmare. Color-blind little boys reach maturity regularly, and then they go to school, color-blind, and must pass away quietly, trying to find their way home from school.

I myself spent much of my time in town standing on corners, staring at the front of cars as though I had met some place before, unable to decide whether the motorman was red and white, or orange and white.

Service Excellent
Still another quirk of Edmonton street cars is their propensity for providing no means of indicating

Glass vs Steel

The successful use of glass as reinforcing material for concrete beams and floors was first announced in 1940. Developed in England, as a result of research to find a substitute for steel after the outbreak of war, it has been used commercially there for the past three years, but has yet to be exploited in America. However, the field of investigation thus opened may lead to the extensive use of glass as reinforcement, not only as a wartime measure, but because of its own particular structural qualities.

To grasp the significance of this development, the engineer should realize that concrete, in itself, while excellent in compressive strength, the usual endow, is weak in tension. In the lower part of a beam or floor under load, these forces are commonly resisted by bars of steel barned in the lower portion of the beam, steel being eight times as strong for this purpose as glass. Normally only about one-third of the total material in the beam (chiefly concrete) is in compression. Thus we find that glass, taking up most of the tension, is much stronger, actually eliminates concrete that carries no load, but severely restricts rigidity.

Glass for use as beam reinforcement is processed in strips 1/16 inches thick, and half the depth of the beam in question. An important feature is that one edge, that nearest the outside of the beam, is not cut, but fire-finished. This "self-sealer," as it is called, bonds readily with the concrete.

In these early stages of development certain disadvantages are being encountered, namely the great length in span, and a lower tensile limit than steel reinforcement. Impact load, however, is usually found in the construction of surface and other answers to the problem are possible. Finally there is the absence of warning before failure. The glass reinforcement does not bend, sag, twist or groan—it snaps. But these disadvantages revealed by initial tests are being subjected to further research, and glass may emerge as a basic material of the civil engineer.

I. M. B. T. H. M. '44

When you wish to alight, there is no buzzer system, and only occasionally an extremely nervous bell-ringer. This means that you must alight before your street by several blocks, and then climb your way to the front of the one-man car, stand beside the door and try to make a noise like somebody who wants to get off, such as coughing loudly, leaning the door with one fist, etc. If this fails as it usually does, you can try wrestling the controls away from the motorman or just wait until he stops to let somebody on.

When boarding a street car in Edmonton, therefore, it is advisable to keep in mind the fact that you will not be going where you want to go, and that when you get there, you will have no chance of getting off. Otherwise, the service is excellent, and faster and at five for a quarter.

—GATEWAY—

TOWER CLOCK

In the last fifteen years, literally thousands of students toiling across the square on an empty stomach at a vain attempt to make an 8.30 a.m. lecture have idly wondered what hidden force kept the Beaverbrook clock so relentlessly correct or, more often, why winter blasts stopped it. Its secret, however, has been well kept by its guardian, Mr. W. G. Jones and his retiring physician, Loc. A. P. Baird.

When Lord Beaverbrook donated the men's residence to the University in 1928, the tower clock was part of the architect's plan and accordingly was ordered in England, since few if any in this country know the art of building such giant, nine-piece, now ordinary church and town-hall clocks are mentioned in the annals of the pendulum mantle clock and little can go wrong with them except the makers did not understand the rigors of a Canadian winter and when the claim was laid by these Bush makers. For example, "We had the 'Shoot Jerry Down' drive at the Fall Festival." Everyone knows that the Bush clock never stops, and it is another in "Who supplies the clock?" But Oh Boy! What wood. The clock is a masterpiece of the makers did not understand the rigors of a Canadian winter and when the claim was laid by these Bush makers. For example, "We had the 'Shoot Jerry Down' drive at the Fall Festival." Everyone knows that the Bush clock never stops, and it is another in "Who supplies the clock?" But Oh Boy! What wood.

The heart of the whole system is a "master clock" on the main floor of the Men's Residence. This is timed by a pendulum in the familiar manner but energy is supplied from an electric battery rather than a coil spring. From this clock, a fine wire runs to the tower and then to the Arts Building, over which a pulse of electricity is sent every 30 seconds. The tower clock, also driven by a pendulum mechanism, wound continuously electrically but synchronized to the master clock, the line from the master operates the tower clock switches in the tower, one of these lights up the clock face automatically at 10:00 a.m. and the other turns on the hour-striking mechanism at intervals. The hour bell is very large and weighs nearly a ton; the five chimes are smaller, but the time rung out by the chimes is determined by the spacing of knobs on a rotating drum and if he is exposed to Barry's health and if he is exposed to much more he will have apoplexy. He really wants to know what is up there, we would suggest he get four or five Sophomore Engineers to go out for a few days.

But don't worry boys all is not lost, and if you want to call your own names, the Engineers will mind. We have also made provision that you will be provided for, because all the clock mechanisms are designed to buy only telephone poles supplied by U.N.B. Foresters.

N. E. E. '46

"Have a good time, at the party, daughter dear, and be a good girl. For Heaven's sake make up your mind, mother."

Improvements on the Road

The opening of the Alaskan Highway and the speedy completion of so many war projects has made us aware of the great strides made in the development of construction machinery. Young men entering the construction field may not realize that many of these machines are practically new inventions. We recently examined the branch of construction, embarking road building and took back a few years ago. Most of the roads in New Brunswick were built the hard way, with pick and shovel and hand tools. Mules and even oxen were used where the ground was unsuitable for horses. You can imagine what a task it must have been.

The invention of the caterpillar tractor did much to change the pattern of road construction but it was not until about ten years ago that Eastern Canada saw its first bulldozer. The bulldozer is that powerful machine that can level out ground, move boulders and knock trees out of its path. On the Alaskan Highway bulldozers were tearing out trees, measuring one foot across the stump. The bulldozer is not as picturesque as an army tank, but it can go anywhere on land that a tank can go.

Each road is such as a horse and mule, used to be done by hand and dump-carts loaded by teams of eight to twelve horses were also used. The jump cars are now a thing of the past and the steam shovel, like most machinery, has been greatly improved. No longer is it necessary for a man to ride on the boom of the shovel just to dump the bucket, and steam power has been replaced by diesel and gasoline.

Now — a contractors with four hander downers, four stamper piers, two hookers, and a switcher.

FARCEters

Roaming about our campus in various sizes, shapes and assorted colors, on a body of the Lunan spider two things who hold claim to the infamous title of Forrester. Now Forrester come in two varieties namely, Sawfly, Beavermouse and Timber Terrorist. In outward appearance they are very much the same. It is only on closer investigation that we find the former with an affection for hugs, while the latter cling closely to the hands of the nonidentical man. All these creatures can be studied more closely in that building we all remember best as the situation of our bitter encounter with Freshman Mach. Don't be perturbed if you hear the larger ones talking a strange gibberish they claim to be Latin. Why they do this remains a mystery known not even to themselves.

Many and wondrous are the claim sets fans laid by these Bush makers. For example, "We had the 'Shoot Jerry Down' drive at the Fall Festival." Everyone knows that the Bush clock never stops, and it is another in "Who supplies the clock?" But Oh Boy! What wood. The clock is a masterpiece of the makers did not understand the rigors of a Canadian winter and when the claim was laid by these Bush makers. For example, "We had the 'Shoot Jerry Down' drive at the Fall Festival." Everyone knows that the Bush clock never stops, and it is another in "Who supplies the clock?" But Oh Boy! What wood.

And what's this we hear about Skovman and Flanagan being coal inspectors for the W.H.T.B.?

OVERHEARD: "You're different, Mary?"

"Okay, but what I do with my woman?"

"Spring — I feel like I was five. I feel like —"

"I tell ya (hic) it's a vein!"

"G'wan! — Did you ever hear a vein about?"

"C'mon, I know all the allegers around here —"

"Okay, — you can applaud now." "Ya arrrrrrr! anything tonight?"

"See ya all after the Wassall (hic) — I'll be there to see. Sum fun, see Znupe. Beer seeing ya, next year, at the Wassall."

Other parties decided they could have a better time if they pooled their resources. No doubt they did — ohh bruties. Smart sniffing here.

LXXX (love a kisses in Latin) ZNUPE

ZKUPE By ZNUPE

BEERS — to the Engineers for a Super dance. Any resemblance to the Co-eds? Is inconsequential.

EMPTIER — to the regular gasp who run this ragged column, for this dim idea. Cor-net kin keep it.

Wolves plenty at the Friday site Hop — Anderson, Evans, Whittingham, Fairley, McSweeney, Habel, and etc. — And a nice array of wolfesses to keep the party jumping. Salut John Y.W.C.A. moved very nicely during the Aftermath.

Still life decorations by Forestry were observed in the men's locker room, and a vivid display of color (red, with shades tending to wine or stronger) in many directions.

The Little Doc prescribes two dances per evening as preliminary treatment. Where do we go from there?

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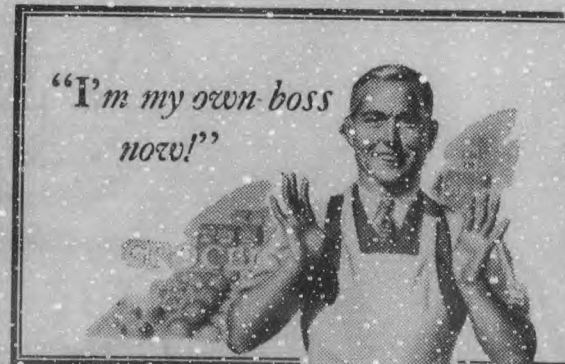
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