What, me worry?

Biculturalism works both ways

Eight years ago the first French edition of the Review shipped through the mailboxes of nine thousand readers (this year we have some 18,000 readers à la française). It was then, and is now, identical to the English version.

Our relationship with our French issue might parallel, to some degree, the national English-Canadian relationship with French-Canadians. We stumble over some translations (this works both ways), and disagree on minor points, but our joint effort produces synergism (the simultaneous action of separate agencies which, together, have greater total effect than the sum of their individual effects—which is a fancy definition of biculturalism).

Speaking of the Canadian French-English relationship, we've carried articles on the subject from time to time in the Review. One example was Hugh MacLennan's 'French is a Must for Canadians' in June, 1960. Another in February, 1962, was 'La Bonne Amitié,' the story of French-English student exchanges between Ontario and Quebec.

The ripples of both articles are still spreading in Ferland, Sask., where last summer a teacher, Sister Marie Majella, used them during a local conference on bilingualism.

'Now,' she writes us, 'some 25 people have asked me for lessons in conversational French, and we've started a French club for adults this week. Due to the article on La Bonne Amitié, one pupil will spend some time in Quebec this summer on an exchange basis.'

Cover: Al Schoenborn's cover photograph provides the clues for a guessing game called 'What's inside the magazine?' His picture incorporates every story in this issue.

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EDITORIAL

In the centre of this issue we show—with a still life color photograph—that the oil business nowadays is not strictly a matter of oil, grease and gasoline. It has grown to an unindicated collection of plastics, textures, colors and chemicals. (We say 'unindicated' advisedly because the petrochemists tell us that there are more than 500,000 carbon chemicals and only a fraction of these have been developed for use in home and industry.)

This is a good time to add that not all of Canada's offshore ships are at home, either. Naturally, a prime concern of the oil industry is to see that Canada itself has the petroleum products it needs. Seventy percent of all the energy used by Canadians comes from crude oil and natural gas. Imperial alone provides about 20 percent of that total energy, plus many other petroleum-derived products.

But, in one form or another, Imperial's oil reaches all over the map. In 1961 and 1962, for instance, the company shipped a total of 20,000 tons of petroleum coke to Italy, for use in the aluminum industry there. Also in 1962, Imperial sent 350,000 pounds of a special calcium base grease to Uruguay. Last year it sent about two million gallons of lubricating oil to Australia. Lesser amounts of lubricating oil have gone to Holland, Finland, Sweden and the United Kingdom. Imperial also exports asphalt, furnace oil and wax.

From 15 to 20 percent of Imperial's annual chemical products' sales are exports, too. Detergent alkali from Sarnia eventually finds its way into the laundry tubs and dishpans of Africa, South America, Asia and the Philippine Islands. A fuel oil pair depressant, discovered by an Imperial Oil scientist (December, 1963, Review) is improving the cold weather performance of fuel oils in North America and several countries in Europe.

Imperial exports sulphur, extracted from crude oil; solvents, such as formal, xylene and toluene; and ethylene, liquefied and shipped in 40,000-pound lots in special low-temperature tank trailers. This most versatile of petrochemicals eventually finds its way into a great many synthetic materials.

In this crude oil from the west and Ontario is helping provide some of the creature comforts of everyday living and some of the materials of industry for people on every continent. Equally important, it's helping improve Canada's balance of trade—a matter of concern to everybody in this country. [Footnote: ]
Don't be afraid to face up to retirement.

It CAN mean a bend, rather than an end, to your life.

But good retirement planning should start when you're young.

Even at age 35, you're more than half-way to The Gold Watch

By Tom Alderman

The words of a hymn Mike Kennedy doubtless sang as a child went something like: 'Work, for the night is coming, when man's work is done.'

From the age of 17, when he first went to work for Imperial Oil, Kennedy—like most North Americans—has taken these words seriously. And to a few months, Kennedy will realize most vividly that a beneficent society has worked out the exact moment when his work is done. That's when Kennedy turns 65.

The next morning, after the speeches and the gift-giving, he will wake up in his east Toronto home no longer an assistant rates supervisor in the transportation and supply department. Kennedy will be retired. Then he will discover that retirement is precisely what one makes of it—that it can be a beginning rather than an end.

To anyone who feels his work is useful to society, retirement is repugnant. To anyone who finds activity necessary to health, retirement presents a critical problem in re-arrangement. To those emotionally unprepared to face old age, retirement is frightening—a symbol of approaching death. To those who think making money is the most fun there is, retirement is dull and empty. To a creative person, retirement is physically impossible. To anyone who's gone some place each morning, even a place he doesn't like, retirement is the removal of a steady destination. To a person attached emotionally to an organization, retirement seems like a divorce from a beloved spouse, an incredible cruelty. There are almost as many problems of retirement as people who work for a living.

What will happen to Mike Kennedy August 31 will happen to a good many of us eventually. Today, if you've lived to 35, you can expect to live to 75 if you're a man, 83 if you're a woman. In 13 years, one of every eight people you meet on the street in Canada will be 60 or older. One of them may even be Kennedy. Like many middle-income Canadians, Kennedy will retire in good health and enough money to live on if he watches his pennies. When I talked to him recently, he was—like many about-to-retirees—vague on what he'd do with himself. How he'll fare after retirement depends on how wisely and quickly he decides to use his time.

'People will tell you,' says Toronto economic consultant Harry Wolfin, 'that the big problems of old age are health and money. That's true today. But with automation, people eventually will retire earlier—at 55, or 50, even 45. Society is recognizing its obligation to take care of these people financially. Retirement won't pose the economic problems we have today. Our main problem will be emotional.'

Whether or not the time will ever come when people retire at 45 with economic ease—and many industry people doubt it will—there's relatively little being done about emotional problems. No one's ever made a scientific study of why many men die within two or three years

Built of many jokes, the gold watch still signifies both a lifetime and a time of life.

Imperial Oil Review, February 1960
Too late to change at 65

You can’t just pick up a new interest at 65, says Dr. Mary Laurence, assistant professor of psychology at the University of Toronto. “People don’t change at 65,” she says. “We become the old person we were all our lives.”

The passing years only intensify our personality traits. Your inner resources—like religious beliefs—have to be built up over the years. If you can’t adjust to changing circumstances when you’re 35 or 45, you won’t be able to do it when you’re 65.

Dr. Laurence thinks it’s particularly difficult to adjust if you’ve wrapped yourself too much in your job. “If you make work your life, your personality probably will not change after retirement.” Your needs can only be satisfied by your job, you’ll be lost when it’s time to retire. You’ll have no substitute for these satisfactions.

Such is the case with many executives. But executivites are resilient souls, and can often turn a disability into an advantage. Some have taken up retirement counselling which, although it may not earn them as much money as at least makes them feel useful again.

Most workers over 65 have plenty to offer Canadian business, says Dr. Lawrence. He took part in a three-month project for Canada. “Employees of the Department of Veterans Affairs” in Toronto who didn’t want to retire at 65 were asked to take a day-long series of mental and physical tests. The idea was to develop some method of scientific criteria for determining what effect age has on performance and physical capabilities. Some areas of the company are experimenting with more formal programs in which employees, individually or in groups, discuss retirement problems under the guidance of company personnel and outside authorities.

Golf trips into this relatively senior life territory have been taken by the meat-packing plants of Swift Canadian Company. Nine years ago, Swift instituted a program that starts providing employer about retirement plans when they’ve served 20 years with the company. When the employer is 60, Swift counsellors invite him and his wife for a visit. Four years later, one year before retiring, they will book another one even more detailed discussion of retirement options. After retiring, the company keeps in touch with the employee at least once, if possible personally.

Swift’s industrial relations manager, E. J. Hickey, regards these one-year visits of primary importance. “If you don’t do it,” he says, “just call on them and see how they react. Their eyes brighten for that contact. It’s pathetic to see how some look for anyone to talk with.”

This need to communicate is the special province of Dr. E. M. Dutton, assistant advisor on programs for older people of the Ontario Department of Education in Toronto. When at 39 Dr. Dutton gave up his dentistry practice in Dryden, Ont., six years ago, he promptly came down with stomach ulcers. Now he’s one of that growing army of retirees who’ve solved their own retirement problems by helping other elderly over the pitfalls. And his stomach ulcers haven’t been heard from since.

Don’t withdraw from youth

“IT’s essential,” says Dr. Dutton, “for the old to have some contact with the young. The old are a force for honest activities—Dr. Dutton supervises some 550 for 15,000 people in Ontario—but retired people need also the stimulation of the young. It’s relatively easy in rural areas, where older people are known and respected. But the major situation, you’ll probably be a better person where community spirit hasn’t any tradition.”

“I know the young live in a different world,” he says. “But a retiree needn’t bury himself. Even living with a young street, instead of those old people’s apartments out in the sticks, can be stimulating.”

A louder “amor” could not come from Stan Blay (pronounced “Bobby”), who retired almost seven years ago from Imperial’s marketing department. At that time, 65-year-old Blay lived with his wife in a three-bedroom bungalow in Toronto’s suburban York Mills. Blay subsequentially built a bigger house in north central Toronto. His immediate neighbors are largely young married-couples. “We get on fine,” he says of his neighbors. “And I don’t feel like a vegetable. It’s fun to be around young people.”

Walter Lyons, administrative assistant at the Jewish Home for the Aged in Toronto, also likes to see his charges relating to youth. It gives them energy to take on new projects.

“But get involved to the maximum of your capacity,” he says. “Get involved in something larger than yourself, like helping other people, identifying with causes. Maybe you can’t stand the rigors of holding an office in the United Appeal, but you can certainly do something to help in a career.”

“Too many people choose an interest that’s not stimulating, that’s no more than a means of isolation from activities and relationships they think they can’t cope with. This experience is very, very acute.”

What it all comes down to, says Dr. Laurence, is that after retirement you should in a lightener harness till you die. How you fashion that harness depends on what you are. But the fashioning should begin early.
after her husband’s retirement. She sobbed to the judge, ‘He even told me I was using my hormones wrong.’

How can a wife adjust to her husband’s retirement? The best thing, of course, is to have an active husband. It’s nerve wracking for a wife to spend day after day with a bored, restless man.

Wives should avoid petty bicker-

ing. One happy retired wife says flatly, ‘Don’t let him get you down. DON’T SCRAP. There’s so much time to do it in that it’s easy to slip in and out of little quarrels that top the foundations of a marriage.’

Husbands should have a room of their own. There’s nothing more

blissful for a man than to get away from it all, including his wife, to do some reading or puttering with a hobby.

Retirement should be thoroughly discussed between husband and wife, not only several years prior to actual retirement date, but periodically as the time grows closer. Before retire-

ment is a good time to lay plans for possible travel or adult education projects. —Thelma Dickman

He Travels Light  Charlie Stone

Charlie Stone’s philosophy for his final years is travel light, as though you’re going on a canoe trip.

Because the moustached Stone went to work for Imperial at 15, he figured he had a right to a few extra years at the other end. Stone set his mind to retire from market analyzing at 60—when he did last July. And for five years before he planned it with the thoroughness of a Royal

Tour organizer.

Stone knew his pension (which was less than a full one, because of his early retirement) wouldn’t keep him at the standard he was used to white he was working. But still, his needs would be smaller—if he made his big purchases while he earned. He paid off his mortgage; bought all the expen-
sive appliances he thought he’d need; had his house refurbished and redecorated; put aside a few invest-

ments as a financial cushion.

‘Maybe I haven’t any secondary interests,’ says Stone. ‘But at 60 I’ve got the energy to develop them, with-

out worrying about the next mort-
gage payment. I may even go back to school. Never did have a chance when I was young.’—T.A.

He Moves Fast  Russ McAllister

Russ McAllister also retired from Imperial at 60 because, as he deli-
cately explains, ‘I didn’t want to be carried out feet first.’

McAllister needn’t have worried. He is a 5-foot-7, 143-pound bundle of kinetic energy who got that way being an athlete all his life. He can still beat a 20-year-old in straight sets at badminton. In fact, he teaches the

game to youngsters in his spare time and coaches some smaller clubs. He

hasn’t much spare time, because he drives each winter down to Mexico. Here he visits all the out-of-the-way villages, where few else dare venture. He’s even become somewhat of an authority on Mexican culture, and hopes to brush up his knowledge of Spanish before his next trip.

‘My retirement three years ago is a success,’ says former manufacturing man McAllister, ‘because I’ve al-
ways had other interests. At the end of a day’s work, I didn’t just have supper, read the paper and go to bed. I went out and played hockey, bad-
minton, or tennis. It’s kept me in shape and given me the zest for new inter-

ests today.’—T.A.
Canadian women are changing their hair colors as often as they traditionally change their minds. And it all begins with paraphenylenediamine

BY JAMES KNIGHT

Once upon a time, about six years ago, a man could tell with some certainty what a girl was going to look like from day to day. She was going to look the same, at least from the ears up.

Not any more. Hair which used to be blonde, brown, black or red can now be silver, beige, strawberry, champagne, lilac, taupe, Shy Violet, Honey Brown, Pink Chiffon, Baby Pearl, Golden Apricot or any other shade a hair color manufacturer can think of or a copy writer can name.

Today one Canadian woman in three is walking around with hair other than the color God made it. She's changing it to match her dress, her house, even her dog. And she and her sisters spend millions doing it.

Hair coloring isn't new. The ancient Egyptians dyed their hair blue to indicate rank. Then Cleopatra, some historians say, bleached herself blonde and broke up the Roman Empire. As long ago as 1931 Lawrence Gellh, a chemical broker and founder of a hair-dye company, brought from France a preparation that, for the first time, penetrated the hair shaft instead of coating it. This did away with the enameled look, common to that period, and gave hair coloring a head start.

What is new today is hair coloring's sudden widespread acceptance. It's going through Canadian womanhood like chicken pox through a nursery school. They're fancying up their crowning glory with one-time rinses that cost as little as 15 cents each and last only until the next shampoo; with 'six week' rinses that will last through six shampoos; with single-application permanent coloring, or with a bleach-and-coloring job (as much as $50 at some salons, plus $10-$15 for monthly touch-ups). Just five years ago about 500,000 Canadian women spent $15 million coloring their hair. Now about two million are doing it at a cost of maybe $32-$37 million a year. Little wonder then that hair coloring firms guard the formulas for their tints the way some countries guard atomic secrets.

Color started going to Canadian women's heads in a big way about 13 years ago, for several reasons. One was the introduction in 1952 of a single-application bleach-and-coloring compound that could lighten and color hair within a few shades of the natural color at one sitting and at reasonable cost. The second was an intensive advertising campaign which replaced that nasty word 'dying' with words like 'lightening,' 'brightening' and 'glossifying.' A third way, and is, our society's emphasis on youth. It's now socially acceptable and chemically possible for a grey-haired matron to get new life (for her hair anyway) out of a bottle.

Women also color their hair for 'effect' (which means showing off, but in a nice way), for love and for business reasons. Toronto's Regent Salon has a customer who changes her hair color as often as three times a week, to match her dress or her mood. She's a successful business woman and the changes have become a kind of trade-mark, albeit an expensive one. It costs between $16-$17 a week, or $3,640 a year, which is only a few hundred dollars less than the average Canadian's annual wage.

A woman once rushed into Joseph Baby's elegant Toronto salon and asked him to match the warm brown tones of her fair skin. She went away happily with hair the same color as a minx. Another salon, upon request, matched a customer's hair to the salt-and-pepper hide of her poodle. One suburban salon tinted a woman's hair lilac and mauve for a party celebrating the new lilic and mauve color scheme of her house.

(Since this is a bit too heady for day-time wear, she wears a champagne blonde wig at the shopping centre.)

A matron in her forties once smooched into a hair salon in Chicago's Merchandise Mart.

'Ve just bought a small jaguar,' she said. 'I'd like my hair done in the same color.'

'Certainly, madam,' said the stylist. 'Is it parked outside? We'll just get a paint sample and then . . .' And then the customer tested out a small leopardskin-like feline on a golden chain. It was a jaguar, all right. The hairdresser stared at her nerves, got out his color chart and finally sent the woman and her pet away. The pelts of both were yellow with black spots.

Women can give the oil industry some of the credit for their new magnificence. The basic formula for all permanent hair dyes begins with anilide (C4H4N3H), a derivative of petroleum, which is further refined to paraphenylenediamine. To this oldy-tongue-twister (heated to 190-195 degrees and constantly agitated) is added a detergent (which may also be petroleum based), ammonium persulfate, various hair-conditioners and a mixture of color.

Dyes are made up in anywhere from 50-gallon to 1,000-gallon batches but few men in any firm know the formulas. One company treats its formula to only three men. Another reportedly keeps its secret in a bank vault and delivers it by an armed escort that watches over it during preparation. Then, back to the vault. Still another firm won't even put its formula on paper; its chief chemist in New York has it memorized in German (the parent company is in Germany) and personally comes to Canada to prepare new batches.

None of this particularly concerns the consumer. All she needs is perseverance and money—and the fancier her hair-do, the more of each ingredient she needs. If her natural color is very dark, she wants to be a pale blonde; she must have all the color bleached out. This might take two or three separate bleachings. A Toronto hairdresser, Gus Caruso, once gave a client six bleachings over six weeks (cost $208), turning her into an ash blonde as a surprise for her husband who was abroad. The husband was surprised. He didn't like it. Caruso colored her black again in 30 minutes for $12.

When a woman wants a (hair) dye color-change she can do it herself, or have it done, in between 15 and 40 minutes with a one-application compound that contains both peroxide and color. It bleaches a little, colors a little and is permanent. That is, it won't wash out.

But once a woman achieves high-

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Rosie's is red,
Violet's is blue,
My hair is pink,
What's new with you?
fashion color, her battle with the bleach bottle has just begun. Hair grows out about half an inch a month. For a bleached blonde this means monthly touch-ups at $10-$15.

One stylist says, "The more you bleach, the more you bleach."

"If you want perfect color, you have to be patient. It takes time and effort."

Women — and more important, their husbands — are becoming more involved in their own hair care. A survey conducted by the Canadian Field Institute of Hairdressing shows that 40% of men say they are satisfied with the color of their hair, while 60% are not.

One man said, "I've been going to the same stylist for 12 years and I'm not sure if I like it any more."

Another added, "I've been trying to find a new stylist, but I don't think I'll find one who's as good as this one."

When it comes to hair care, men and women agree on one thing: patience.

Hair Color

The most popular hair color among women is blonde, followed by brown and black. Men prefer blonde and brown, with black a distant third.

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A FRACTION OF PETROLEUM

fraction (frak'shun), n. chem. One of several separately collected portions, as of a distillate or precipitate.

A few years ago a Nova Scotia teacher wrote us, "Will you please send us a sample of crude oil? We've read about it in your magazine for years—but we've never seen it."

And, of course, she hasn't. Neither have hundreds of thousands of other Canadians, including a great many who work for Imperial Oil. Not have they seen the oil that heats their homes, the gasoline that goes into their cars or the curious petrochemicals and substances—all offspring of crude oil—which other companies make into literally thousands of consumer-type things we all use. It seems high time to show the materials we've so often and so blithely mentioned over the years.

Since we can't mail crude oil or members of its family to interested persons (for one thing, the post office would frown on it) we've photographed a few of them on the following pages. This is by no means a complete sample of the basic 'fractions' of crude oil as obtained from the refinery, or the intermediate products derived from further refining. We have not attempted to show the 600 or so petroleum products—including all manner of oils, greases and waxes—which are marketed by Imperial. And, we couldn't begin to picture the thousands of consumer goods that come from petrochemicals.

But we have attempted to make two points: the oil business isn't just greasy, oil and gasoline. And the petroleum family, although by no means a rainbow of colorful color (even the color of gasoline is achieved with dye) has some interesting differences of texture and subtleties of color.

You might expect Athabasca tar sand to be black and granular. It is. But you might not expect crude oil to be a free-flowing liquid, as it is; somehow the word 'crude' connotes a gummy masses-like substance. Perhaps you

Man, It's a Gas!

Whether they call it propane, liquid gas, bottled gas or, properly, LPG, country people find it makes them feel warm—all over.

Imperial Oil Review, February 1964
A FRACTION OF PETROLEUM

We're stretching a point in referring to this picture as one of the "family of petroleum," because it shows only a few of the numerous offspring of the big daddy of them all—crude oil. What we're trying to give you here is a glimpse of the multicolors and textures in a "family" that you may have visualized as all black and gory.

Everything in the oil industry starts with what's in the bottle on the far left—crude oil. Many people, possibly because of that word 'crude,' think of this oil as being thick and heavy, almost a solid. And so it is—sometimes. More often, though, it's a fairly free-flowing liquid. (Crude, by dictionary definition, simply means not refined, or in a natural condition.)

The pink-orange and purple liquids in the next two bottles are gasoline—the first Eso Extra, the second tractor fuel. The pale yellow fluid is diesel oil, which stands slightly in front of furnace oil. The buckwheat colored liquid in the beaker is a lubricating oil.

In the front row at the left we find CPX59A—which doesn't mean anything to anyone right now, except Imperial's research scientists. They're experimenting with this high molecular weight aromatic resin in the hopes of being able to use it some day in synthetic rubber, battery cases, and who knows what else?

The orange lumps of what looks like horehound candy are actually another resin. Chemical companies make this from raw materials produced by Imperial refineries.

The long yellow bar is pure sulphur. Tons of it are recovered in solid form from natural gas and crude oil. (Surprised that sulphur isn't a powder?) Ethylene, which comes from crude oil, is an amazing substance—it's a component of virtually everything plastic. The black and white cubes that look good enough to eat are low density polyethylene, which began as ethylene, and could end up almost anywhere in your house.

That black mass is Athabasca tar sand. Its texture is somewhat like plasticine. The bar sands of northern Alberta are the richest petroleum treasure in the world; they contain an estimated 700 billion barrels of crude oil. Companies are trying to find the best commercial method to extract the oil from the sands.

The last beaker holds fluffy white flakes of dimethyl terephthalate—it's likely they are part of any synthetic dress or suit hanging in your closet right now. Those colorful oversized checkers in the front row are Visdon, a colored paving compound containing petrochemical resin. Someday it may brighten our highways, driveways and patios. Imperial scientists are still testing it.

Our background picture is a shot of the Mackenzie River somewhere in the N.W.T. This is the kind of land where it all begins...—Thomas Dickman
Ted Trump & His Performing Giraffes

Is it a circus? Is it an animal show? No! It’s Ted Trump’s hydraulic-powered aerial platforms, used by those peach pickin’ Okanagan fruit growers.

Ted Trump’s Giraffes, in fact, are world-famous hydraulic-powered aerial platforms. But the circus connotation is appropriate enough. Long-necked and mobile as their namesakes, they can perform complex aerial maneuvers with a precision worthy of the Big Top. At the touch of a lever on the control platform, the operator can raise himself to treetop or rooftop level at the end of the Giraffe’s raised booms. With a range of 360 degrees, extend almost vertically to a height of 120 feet on the largest model, jackknife to within inches of the ground and return to folded, horizontal compactness on the carrier vehicle.

The control platform remains level at all times.

The versatile Giraffe—there are 14 models—has lifted Trump Ltd. sales close to a million dollars a year. Giraffes are being used in 43 different countries, from Mozambique to Denmark, for fruit picking and fire-fighting, mining and high-level maintenance, dry-dock work, re-icing aircraft and a hundred other off-ground jobs. Five of the world’s air forces and four of the world’s navies have enlisted Giraffes. U.S. military forces employ 500. Others are entrusted with the infinitely delicate task of loading Britain’s V-bombers with nuclear payloads. Giraffes were used to install street decorations for Princess Margaret’s wedding. One has seen service as a mobile camera dolly for a Hollywood movie company filming appropriately, giraffes in Africa. Trump’s Giraffes have even raised the Iron Curtain to find ready buyers in Poland and Czechoslovakia.

On the domestic scene, Trump, like his several competitors in the field, finds a growing market for his aerial machines. Federal and provincial governments, hydro authorities, airlines, telephone companies and major industries are among the customers of this internationally known company with local roots.

Small-town native or not, Trump Ltd. intends to stay a contended corporate citizen of the Okanagan Valley, despite the obvious competitive pressures of being over 350 miles from its Vaiontiver suppliers and almost half a world away from most of its primary markets. That these disadvantages have been met and overcome, with Canadian-designed Giraffes supplying world demand, is a reflection of the ability and energy of W. E. Thornton-Trump, engineer, inventor, international salesman, founder, president and guiding spirit of his company.

Billed as the world’s first tire fighting aerial platform, a Giraffe can transport a stretcher case and six people comfortably.

Ted Trump, 45, is a tall, slimly-built man with an infectious smile. He speaks rapidly, gesturing with the blunter-fingered, competent hands of a man who has worked with tools. He is also a man who reads. His office bookcase includes works on refrigeration, filing, graphic statics, applied mechanics, arc welding, labor.
was covered with poison ivy. Later they hand-built a machine shop. She mixed and poured the concrete while he troweled 1,000 square feet of foundation. This time they allowed themselves the luxury of hired help: a 14-year-old boy who is now president of Trump's employee association.

Imperial Oil agent Ben Lambert recalls Trump's machine shop as 'a little old shop with a broken-down lathe.' Ted Trump called it Southern Okanagan Machinery Limited.

With his diversified background of technical training and experience, ranging from college in California to diesel maintenance in the Cariboo and from goldmining in the Yukon to artificer training in the Army, Ted Trump was prepared to handle anything. And he did. As he remembers: 'In those early years, I was chief problem-solver for the few sawmills, canneries and mines in the area. I built and added a 20-foot extension to an 80-foot smoke-stack; invented and manufactured a peach-splitting knife that is still being used today; built ore-gates and designed equipment for making pickled fruit.'

The background that gave Trump his versatility also implanted an intense personal ambition. 'When I was 20,' he recalls, 'I worked my way up to Dawson City to find a job in the gold fields. I had $35 in my pocket. I was out of work for three months and nearly starved. I managed to get by on one meal a week from each of three restaurants by supplying wildflowers for their tables.'

When he did find a job, he constantly worked overtime for a nickel an hour—saving it, counting it, dreaming and planning what to do with his money. Then he lost the job. 'That day I made myself three promises: that I would never again work simply for money—profit would be a by-product; that I would strive to create jobs, and machines that could create jobs; that I would never forget that no one can buy or make or save the most precious commodity in the world—time.'

His first job-creating machine, the prototype of the hydraulic Giraffe, was born in 1951 after nearly five years of planning. The basic idea was sparked quite simply by the high frequency of step-ladder accidents in the Okanagan orchards. He set out to make the ladder obsolete. He rejected ideas after idea. His first attempt was a Rubie Goldberg design—a tractor-drawn trailer with a tree-high platform mounted on it and a plank leading to the tree. Later he mounted the platform directly on the tractor in the manner of a primitive fork-lift truck. But the principle of the hydraulic 'elbow' movement eluded him. 'The trouble was,' he says, 'that I didn't really understand the basic action until I drew a line of fruit trees on paper and sketched in the figure of a man in mid-air in the attitude of a fruit picker. Then I worked backwards to try to find how I could move him from ground level to tree-top, all the way from tree to tree by the simplest mechanical means.'

From that point his first twin boom hydraulic lift on a motorized wheel base was designed, built, and sold within three months.

Acceptance and orders gradually built up from the fruit growers of western Canada and south of the border. Then, in 1955, with his credit fully extended and his investment in plant and equipment at its peak, an autumn freeze killed thousands of fruit trees, his market and almost his business.

In debt for $180,000—it was to take him five years to repay—Trump bounced back. Determined to diversify and avoid a similar disaster, he turned to new machines and new markets. In the next few years he developed:

The Giraffe—a smaller, single-boom aerial platform, for such uses as orchard work, dry-fork work, cleaning street lamps, installing advertising signs, painting and sandblasting difficult-to-reach areas. Four models are now in production.

A series of three Snorkels—the world's first fire-fighting aerial platform. The largest model can raise a fireman 12 stories high, carry a stretcher case and six persons on its platform and pour 1,000 gallons of water per minute into the heart of the fire. Winnipeg fire department, the first of many buyers, claims: 'The Snorkel has revolutionized the fire fighting profession ... one of the most important pieces of equipment ever devised for fire fighting work.'

A Giraffe with a fireproof boom, so well insulated that hydro workers can safely handle 'hot' lines up to 500,000 volts, barehanded. This is another world 'first' for Trump Ltd.

To develop markets for these machines, Ted Trump traveled the world on a personal selling campaign, licensing foreign manufacturers where direct selling was not feasible. He acquired a 1,200-acre tract of land at Brantoun, Ont., for a branch assembly operation and showroom.

The early years of the Sixties began to look good. Then, in March, 1962, fire gutted the Trump plant. Firefighting saved only 5,000 square feet including, ironically, the original shop-hand-built 18 years before.

Kicking through the still-warms ruins with the fire marshal that same evening, half tempted to call it quits, Ted Trump picked up a chunk of metal, grotesquely misshapen by the fire. Its base was black with ash, but from it now a slender column of gleaming metal unmistakably moulded into the neck and head of a giraffe.
Trump's company has already manufactured five- and ten-cylinder models. Hawker-Siddeley Canada Limited has purchased four units to power the ground wheels of its experimental Gemini air-cushion craft, ordered by the Defence Research Board for tests in trials in northern Canada. Other units are in service in a Los Angeles company's Ridge Runner, a rough-country, four-wheel, high-per- formance go-anywhere vehicle. Stationary Dynastat motors are being used to power winches, earth-moving augers, crane turrets and the drums which haul in the laden nets of B.C.'s fishing boats. Yet the invention is still in its infancy.

Trump is still happiest as an originator of ideas and a solver of problems. Occasionally he pulls out a piece of chalk, a flexible metal rule and a basted jackknife. "These are my tools," he says.

Trump's mind jumps ahead 10, 20, 50 years and sees massive hydraulically-motivated vehicles for road building, earth moving and large-agriculture farming. He makes quick chalk sketches on the fancy floor. (Many of Trump's designs first came to life in this way.) Or he illustrates a point on vehicle mobility by driving one of his Giraffes in rapid, tight circles with all the delight of a boy discovering his first car wheel.

His conversation takes sudden jumps from a theoretical network of electric power lines that could one day link all countries of the world to the insulating properties of fibreglass, or the racial problem in Africa which so disturbed him when he made a business tour of that continent.

Even at his lakeside home with its panoramic views of the valley, Trump doesn't slow down. Much of his time is devoted to his family—they are proud of their four adopted children, a red setter and a prolific cat—and to entertaining a stream of visitors who find themselves trading briefcases for water skis with speed and informality.

His three acres of land fronting Lake Tew-ni-noot were once sand and scrub. He bought the land for $779 and turned it into green lawns and over 200 fruit trees. Tending this oasis is a newly-embarking family project, with Trump invariably leading the foray at the wheel of his motorized mower.

He does everything with gusto. His appetite for living belies the fact that he was born a "blue baby," was invalided out of the army and still suffers from a gastric malfunction that reacts painfully to tension and stress. He makes no concessions to ill health. One board meeting at the plant was interrupted when he collapsed with acute appendicitis. Trump telephoned the director from hospital and the meeting was concluded at his bedside. Since he was being prepared for surgery at the time, the meeting closed on an unprofessional note. "But," says Trump, "I hate to leave anything unfinished."

APPOINTMENTS

IN THE NEWS

James C. Maguire has been appointed manager of the engineering division, manufacturing department, replacing C.P. Warkentin, who retires after 35 years of service.

Born in Montreal, Mr. Maguire joined Imperial Oil on his graduation in engineering from McGill University in 1937. He received extensive experience in refinery operation at Sarnia, and became assistant manager of the engineering division in 1956. Appointed assistant refinery manager at Sarnia refinery in July 1960, he retained this position until his present appointment.

R. Bruce Spears has been appointed general manager, transportation and supply department. He succeeds R. M. Crockett, now assistant coordinator—pipe lines, transportation department, Standard Oil Company (N.J.).

Mr. Spears, who graduated in commerce from McGill University in 1928, joined Imperial at Sarnia, where he gained experience in general refinery work. He moved to Toronto with the manufacturing department in 1936, was appointed assistant manager of the company's supply department in 1947 and in 1949 managed Calgary's crude oil purchasing division. He became manager of the transportation and supply division in 1953, and assistant general manager in 1960, which position he held until his appointment in December.

R. BRUCE SPEARS

JAMES C. MAGUIRE
Toronto's new International Airport provides avant garde sculpture, fountains, VIP red carpets, totem poles, filtered air and overnight accommodation. You can even catch a plane out there.

It's hard to decide whether they've opened a new airport or a bash country-clubish spa.

Nestled 19 miles northwest of Toronto, it's called Toronto International Airport. But we all know the traditional idea of an airport. That's what you fight your way through to get to your plane seat, feeling like the only survivor of the Charge of the Light Brigade.

With this $32 million aeroquay, however, it's entirely possible to deliver yourself from car to aircraft in a little capsule of comfort. In this temple of efficiency, all the old conflicts are resolved.

You can, for example, wheel up in front of the ticket office, step out to buy your ticket, and proceed (on the average) a mere 500 feet to your flight gate. That's the shortest average ticket-counter-to-gate stroll in North America. Most airports figure more than double that walk, and about one-quarter of the aircraft positions in Toronto are only 350 feet from the ticket wicket.

Within six years, about four million people will be leaving and arriving annually in Toronto by plane. More than 6,500 cars could be looking for parking space around the airport at any one time. As many as 40 aircraft at any one instant could be loading and unloading passengers. To handle this onslaught, architects John B. Parkin Associates scrapped the old concept of a single building housing all terminal activities. Better to build a terminal building servicing a specified number of aircraft, to be supplemented by similar buildings when the traffic warrants.

Oh, to be at Malton, Ontario, now that Toronto's new International Airport is there. You'll share its facilities with hundreds of people but never feel crowded—as they say.

Out of this came what the architects call an aeroquay. It's a multi-storeyed building within a building, looking like a two-storey ship's wheel with six spokes and an eight-storey rectangular building as its hub. As many as three aeroquays will eventually be built around the main administration structure, all with the same overwhelming services.

It's the only airport in the world
where you can park inside the terminal. You're swept in on a maze of freeway-style highways and overpasses which develops somehow into an underground one-way access driveway. The driveway continues in a leisurely way under the circular outer building, housing airline offices and departure rooms, into the bowels of the inner building. Shielded from all elements, you can park either in the eight-level garage atop the inner building or in the temporary spaces alongside the ticket office. From here you're no more than a three-minute walk to your plane seat. Let the automatic baggage ramps spirit your luggage away. Step out with not so much as a hair misplaced by a gust of wind, along one of the six enclosed rampways thrusting out of the airfield like outboard fingers.

Any air that does surround you in the aquarium will come with the best of references. All valves open and sounds are checked at the door, and banned by a year-round air-conditioning system and half-inch-thick plate glass windows. If you are still distraught, turn your children over to the qualified people in the nursery and rest your eyes on the three eight-foot-high Eskimo carvings, part of a $175,000 display of art in the airport patio out front. If that doesn't soothe you, go to bed. There are 12 roomettes in the building—complete with showers—for stopover passengers. (At press time, the Department of Transport was considering some structural changes in these roomettes.)

With two million square feet to maneuver in, you can go about your business as the aquarium absolutely unencumbered by lockers, phone booths and vending machines, all of which sit at discreet distances. If they threaten to get too pushy for floor space, the very walls will swallow them (removable panels will open up space for more machines).

From the observation decks, only beauty caresses your eyes. To the west of the new, 9,500-foot-long jet runway, a graceful 100-foot control tower surveys the aquarium and its 15 approaches with a lofty dignity. Its new radar facilities include a high-powered weather radar that not only tells the location of nearby storms but also how big they are.

The fueling system is new, too. Aircrafts are now fuel-serviced at 53 hydrant points spotted around the aerodrome. These points are fed from 1,100 yards away by 17 tanks, each with a 50,000-gallon capacity. The tanks are booked by pipeline to the main products pipeline from Imperial's Sarnia refinery. More than 40 million gallons of jet fuel will be pumped into planes there this year, almost all of it Imperial's.

By adding a new form of address to the language, the new airport will even case ruffled feelings. VIPs need no longer feel left out of things when VIPs get the red carpet treatment. (There really is a red carpet.) CIP stands for Commercially Important Persons—which means, approximately, people not quite as important as VIPs. And though they may not get the "this-way—master" deference, they'll be able to soothe each other's punctured pride in waiting rooms—reserved entirely for them.

Called an aquarium, this building is the first of an eventual four, all designed to make life more beautiful for travelers.

by Tom Alderman

Possession may be nine-tenths of the law; even so, salt was evicted from its basement room when Imperial needed storage space for propane gas

Just about now, more than 75,000 tons of salt must be wondering what it has to do to please a landlubber.

For 280 million years, it has rested peacefully one-half mile below the surface of southwestern Ontario, bordering absolutely nobody. The perfect tenant.

Then along comes Imperial Oil issuing eviction orders without even the customary million-year's notice. The latest outrage was perpetrated a few months ago when Imperial finished digging a cavern below its Sarnia refinery. Out went the salt (in the form of brine) and in will go 200,000 barrels of liquid propane gas, the better to serve Ontario's grocers of flue-cured tobacco. Deprived of its low-cost housing, the salt is wandering aimlessly through the Great Lakes system, diluted beyond recognition and muttering about the evils of tobacco. (It is doing this, incidentally, with the complete approval of authorities and has no effect on marine life or on the domestic or industrial use of the water.)

The salt, a relic of the Silurian Age, is a victim of simple economics. The rent's cheap down there. It costs $2-$3 a barrel to create liquid propane storage in a salt cavern. Man-made steel storage tanks cost about 10 times as much. Besides, products clocked 2,200 feet underground are less likely to get into trouble—like leakage. And when you've got 200,000 barrels waiting patiently below a dolomite bed, it's easier to meet the heavy demands of tobacco farmers during the peak curing months of July, August and September. Tobacco farmers in southwestern Ontario buy roughly 200,000 barrels yearly, and this was the main reason for improving storage facilities.

This isn't Imperial's first excursion into wholesale salt eviction, but it's the largest. Four other caverns are clustered about the Sarnia area, each with a 10,000 barrel capacity. There's one each for ethylene, propylene, butane and another liquid propane. With this new cavern, liquid propane will move into more spacious quarters and butane will take over in two caverns.

A rotary drilling rig announces salt's forthcoming ejection. Once the hole's been drilled, two sets of pipes, one inside the other, poke into the area. Water pumped down the center pipe dissolves the salt. The resulting brine is forced to the surface through the outside pipe.

Salt's argument against such inconceivable end is that it established proprietary rights long before Imperial arrived. It's part of a saucer-shaped geologic formation called the Michigan Basin, which stretches through most of Michigan, dunks momentarily under Lake Huron and pops up again along the southwestern shore of Ontario. The Basin was formed around 280 million years ago, when a vast salt water ocean covered the area. Gradually the water evaporated, the salt remained, and layer upon layer of dirt, sludge and shale nested atop the salt layers.

Here they lay until someone discovered them in 1867. Because Ontario's just on the rim of these beds, the salt is only about 1,500 feet thick there.

The oil industry started digging caverns out of salt formations just 14 years ago. Imperial began its first in 1954. When this latest has been filled, Canada will have almost three million barrels of oil products stored in former salt habitats.

All of which doesn't impress the salt one grain.
ONTARIO'S ROADS SCHOLARS

Of the 104,000 accidents occurring on Ontario's roads each year, more than 75 per cent involve rear-end collisions. The cost of these accidents, measured in terms of property damage, injury and death, is enormous. In 1962 alone, the cost was estimated at $5,565 per accident.

This reconstruction of an actual intersection before "psychoanalyzing" shows that eleven accidents occurred between June 1960 and August 1961. They cost $5,565 in property damage, included nine rear-end collisions and injured six people.

When this province's roads turn mean or accident-prone, the department of highways calls in its analysts. Once they even enlisted a university psychologist.

by LEslIE DE MERTZ

The department of highways, in an effort to reduce the number of accidents, commissioned a study of rear-end collisions. The analysts found that most rear-end collisions occur in the early morning and late afternoon, when accidents are more likely to happen.

The analysts also found that rear-end collisions are more likely to occur on rural highways than on urban highways. They recommended that more traffic signs and more police patrols be installed on rural highways to prevent rear-end collisions.

The department of highways acted on the analysts' recommendations and installed more traffic signs and increased the number of police patrols on rural highways. As a result, the number of rear-end collisions decreased significantly.

This is just one example of how the department of highways uses experts to solve problems and improve roads. The department of highways continues to work with analysts and other experts to improve road safety and reduce the number of accidents.
Highways psychoanalysts, for one thing, had to find out why, although pedestrians crossed the Queen Elizabeth Highway in other places, this small stretch of road was particularly hazardous. Part of the reason, they discovered, was that traffic was unusually congested at this point. This, in turn, seemed to be due to an engineering flaw. The road was of normal width (four lanes divided) but was unable to cope with the heavy flow of traffic; it was therefore widened to six lanes for clearer traffic flow.

For pedestrian safety, crossovers (median strips which have been filled in to allow emergency U-turns) were eliminated and chain link fence was installed along a four-mile stretch. For both vehicle and pedestrian accident prevention, a special steel centre rail was installed, which allowed a car, in case of a crash, to slide along this barrier instead of simply coming to an abrupt stop. Since 1961 only two people have been killed in car accidents. And vehicle accidents, incidentally, are down from an average of 140 accidents per year for the previous four years to 82 accidents in 1962.

Accident analysis similar to this has been going on for a long time within Highways, but it was uncoordinated, spasmodic and largely unreported until last year, when Dave Valese, Macnee and Mahoney began working as an organized team. Roads aren't always killers. Sometimes they just turn out to be can-
tankerous. Macnee has scored some notable successes with this type.

A case in point is the intersection of Highways 35 and 121, near Fenelon Falls in Ontario's lake area. There had been 11 accidents at this intersection between June 1960 and August 1961, including nine rear-end collisions. Macnee and his men studied the site closely for engineering errors. Highways 35 runs north and south and 121 branches off to the north- east from the intersection. A stop sign halted southbound traffic on 35; theoretically allowing the southbound cars on 121 to carry on through the intersection and onto 35. As it stood, the stop sign merely confused some drivers. Those on southbound 35 didn't expect to see it and, sometimes, stopped too late. Those entering the intersection from 121 sometimes stopped (although they weren't supposed to), causing other rear-end collisions.

The Highways men made two changes. The stop sign was removed from 35 and placed on 121. Traffic on 35 could now proceed through, while cars on 121 had to stop. Second, the intersection was 'channelized' by placing an island of sand bags in the middle. This helps draw the turnoff traffic aside to 121 while through traffic stays on 35. The island, now a permanent concrete structure, also presents a barrier between the traffic lanes converging on the intersection from north, south, and southeast. In the first 14 months after this 'cure' there were only three accidents.

The same method worked at the eastern approach to the Dorchester traffic circle on the Queen Elizabeth Highway, near Niagara Falls. Reports showed that the location was accident prone. Most accidents were the type that stem from loss of control. From November 1954 to November 1955, nine accidents had occurred at the approach killing two people, injuring 17 and causing $12,040 worth of property damage.

Several field studies produced suggestions for such cures as oversize advance warning signs, checkerboard signs and pavement markings. All were tried, with minimal results.

In November 1955, a reinforced concrete guardrail was installed: a guide rail to help drivers follow the curve of the road; concrete because, subconsciously, drivers take more precautions to avoid swerving into concrete than, say, wire. Since then traffic injuries at this spot have averaged only three per year and there has been only one death in the entire eight year period and property damage of only $8,361.

Not all faults can be so easily fixed. In such situations, it's difficult to persuade the public that no action is sometimes best. Often, after an accident at an intersection, there are public demands for stop signs, traffic lights or flasher warning lights. It's hard to convince the public that traffic lights seldom reduce the number of accidents at an intersection; they are primarily designed simply to speed the orderly flow of traffic.

Highways men know this to be a fact. They also know that where highways are concerned, beauty can be justified by more than aesthetic reasoning. With grassy slopes, shrubs, trees and sodded medians strips, designers can not only beautify a highway but build in points of interest that relieve the 'turnpike trances' which cause accidents. Properly engineered curves and gentle grades also provide a change of scene for drivers. For the same reason, rest areas are now considered essential on superhighways.

On the other hand, there's a difference between a point of interest and a distraction. There's a story, probably apocryphal, about an accident-prone stretch of road in Ontario. The cause of the accidents, the story goes, was a huge sign which drew the motorist's eye off the road. The sign read 'DRIVE SAFELY.'

True or not, the story makes a good point that signs can be a hazard.

'There are too many signs of all kinds,' says Dr. Macdonald Ball.

Ontario's highway analysts will soon enlist another ally, an electronic computer accident-report file system. The system would be programmed to cover every possible type of accident, under every kind of road and weather condition. The cards would show the resulting damage, as well as whether the accident was fatal or non-fatal.

Then, if faced with the choice of, say, building a two-lane divided highway with six, eight or 10-foot shoulders, engineers could use the computer to weigh all the factors involved and find in seconds statistical evidence that would enable them to build the right width of shoulder at any given point.

The day may yet arrive when highways will be completely free of any dangerous tendencies or trouble areas. Then all we'll have to worry about is the drivers.