Doing your ABC’s

For some readers, our front cover will be paper snowflakes such as they might have cut out, years ago, to paste on a kindergarten window; for some, a reminder of the lay, sentimental Valentines one sent in the past to one’s ‘babe’; for some, merely a pleasingly balanced, geometrical design. We’ll opt for the kindergarten window—and if you’re brave enough to try following our directions to make your own snowflakes, go one step further and try metal foil for some.

Why Johnny can Read

Professor Edward McCourt, who wrote the article on students’ reading habits (page 20) has had a varied background. Born in Ireland, brought up on an Alberta homestead, he took high school correspondence and university by storm (graduated from the University of Alberta in 1932 and granted a Rhodes scholarship). He taught at Ridley in St. Catharines, Upper Canada College in Toronto, Queen’s University at Kingston, Ontario, and the University of New Brunswick in Fredericton.

This month in La Revue we are running an article on students’ reading habits in French Canada written by Dr. Jean-Marie Beauchemin. We were delighted to find that, although Dr. Beauchemin’s article disagreed with Professor McCourt’s on some minor points (French Canadian university students apparently read more while English Canadian youth generally do not), their major points of argument were much the same.

Dr. Beauchemin, a psychologist by profession, is also secretary general of the Federation des Colleges classiques et editor of its bimonthly publication, as well as moderator of a one-hour quiz program for classical college students on the French TV network.

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BETTER EDUCATION = BETTER BUSINESS

There aren’t any strings attached to the $150,000 annual student aid program at Imperial Oil, which includes both scholarships and postgraduate fellowships. In other words, there’s no proviso in any Imperial Scholarship that the winner must work for, or be obligated to, Imperial Oil.

For instance, the five winners of Imperial Oil’s 20th annual Graduate Research Fellowships, to be announced this spring, may never work for Imperial. According to a recent survey, 33 percent of our fellowship winners work for other companies, 12 percent are employed by government agencies like the National Research Council, and 40 percent are on university faculties.

Behind this plan is sound economic logic. Imperial benefits from any general upgrading of education in the community. In 1946, when Imperial established four annual research fellowships, the then-president Henry Hewitt explained that the company wanted to help promote scientific research in industrial fields and to offer better educational opportunities for Canadians. Better men in Canadian business and government research mean a better business atmosphere. Better faculties encourage better students.

The awards have changed with changing needs. They started in 1946 as four annual research fellowships for university graduates, each worth $1,000 yearly for three years. Only postgraduates in chemistry or chemical engineering, mechanical engineering, petroleum geology and petroleum engineering could apply. This was in fine with the view that company support for education should be close to company lines of endeavor. Today, broader views prevail and fellowships are also offered in history, economics, psychology, political science, that is in all social sciences and humanities. There are now five fellowships, three given to science graduates, two to those in the humanities and social sciences. Each is worth $2,500 yearly for three years.

Imperial also grants $1,250 yearly to the attended Canadian universities to cover expenses incurred by the postgraduate and his university department.

Applicants are sifted by a committee on which sit two Imperial appetites and three chosen by the National Committee of Canadian Universities and Colleges. They know their task.

About 85 percent, 10 percent more than the national average, of Imperial fellows have completed their doctorates. They don’t have to study at a Canadian university. Most, in fact go up to the U.S. (Princeton, Harvard and Massachusetts Institute of Technology are particularly popular) and about a dozen got their degrees in the United Kingdom, where the first choices are Oxford or Cambridge. That’s a little point in restricting them to Canada. If they and their nominating universities feel their special field of interest can be better studied outside the country, that’s where they should go. And though only 28 percent have studied at Canadian universities, about three-quarters of all the fellows now live and work in Canada.

The fellowship plan alone to date has cost Imperial about $560,000. And this figure does not include the cost of other scholarships which have been granted to students since 1946.

For all these aids to students, Imperial over the years has paid out more than a million dollars. And we feel that every nickel has paid off.
It's an airplane, though not like the airplanes you see every day. The stub wings drop, the wheels stow out and a rasper nose juts at a far horizon. It's small, so airplanes go these days. Fifty-five feet long, 13 feet tall. It weighs 14 tons and a wing is the size of your kitchen table.

Like a Ferrari, the CF-104 Super Starfighter is built for speed. It was built for other things as well, but the impression is of speed. And it is fast. In 1958 an early model Super Starfighter captured three world records: absolute speed, altitude and time-to-climb. On one speed run it was clocked at 1,500 mph, or better than twice the speed of sound. The altitude record set was 91,000 feet; the following year it re-set the record at 103,000 feet.

It is still one of the fastest manned aircraft on earth. Its designer, Lockhead, has sold it to nine countries. Six RCAF NATO Squadrons in Europe fly Super Starfighters, built by Canadian of Montreal. But even as it flew in last autumn—at 54 Strike-Recce Reconnaissance Operational Training Unit, Cold Lake, Alta.—the Super Starfighter's role as Canada's fastest military aircraft seemed near an end. The defence department was seeking a tactical ground support aircraft as successor to the CF-104.

But the new aircraft, when chosen, wilt undoubtedly be supersonic too. It was to fly a supersonic aircraft, and meet its pilots, that I went to Cold Lake. Who are these pilots? At the outset the RCAF selected only those who had flown Sabres or CF-104's and who had accumulated hundreds of hours of jet experience. These are the 'old guys.' The Air Force is now equally interested in the 'young guys,' pilots just completing their wings training. At present, the OTU trainees at Cold Lake are 50 percent of each.

How do the kids make out? I asked Squadron Leader Ron Russell, chief flying instructor at the OTU. At 34 years of age he is, by definition, an 'old guy.'

'The young guys learn faster,' says Russell, 'but they lack the experience that goes with 3,000 jet hours.'

Since you can't buy, borrow or fake experience, the Air Force is building a pool of it by training the kids, for of course the supply of 'old guys' won't last forever.

'Not one of the young trainees has failed the OTU course,' says S/L Bill Paisley, who heads up the OTU itself. 'They're amazing. Tell them once, and they've got it.'

He stood on the ladder's top rung—cockpit, helping with the straps, hoes and connections that wed pilot to machine. Shoulder and lap harness to hold you in place, cables to your knees in case of ejection, oxygen hose, emergency oxygen hose, survival seat pack clipped to chute harness, automatic parachute release, radio jack plug and seat pack lanyard fastened to Mae West in event of a water landing. It takes a few minutes.

While Paisley was himself strapping in, I viewed the profusion of switches and knobs, dials and gauges that duplicate those up front. Dominating the instrument panel is a combined compass and artificial horizon. Beneath it, and almost as prominent in display, is the face of a radar scope. The engine instruments are small.

The tortured shriek and screech of an Orenda 179 jet engine as it starts is an uncomfortable sound. It becomes considerably more so as the huge turbine winds up to a dangerous wall.

The noise fades slightly as we tighten the ejection mask which has the effect of tightening the ear humps. Out front the start crew chief signals the pilot that the final check is complete and Paisley takes to Ground Control on the radio. It's a jargon.

'Wotan, tavosin.'

'Walnut, taxis.'

'Walnut' is Paisley's call sign. He asks for taxi clearance, and gets it.

We roared to the business end of the runway we were met by two ground crew members wearing the large ear protectors. Paisley stopped while they removed safety lock pins from the wing tip-ejection mechanisms.

'They'd pull the armament give two all we were carrying anything else,' Paisley meant bombs, rockets or missiles. Everythiing is carried externally on the '104.
Arriving at the button of the runway, Paisley reached up and pulled the clam-shell canopy down. I did the same, fastening it as he instructed me. He went through his pre-take-off check out loud.

"Hydraulics, okay. Harness, tight. Canopy?" "Shut and locked..." "I strained to see..." "three hooks."

Three steel hooks firmly in place. That was my contribution to Paisley's take-off preparations. He finished his check and consulted with the tower.

"Walt to position." "Roger, Walt. You're cleared takeoff." "Walt." And after one last check of the engine at 100 percent Power while we were pointing down the runway, Paisley said the equivalent of farewell: "Walt rolling."

The roar of a J3J turboprop at 100 percent power is awesome. (Beyond that, when they turn on the "afterburners"—literally spraying raw fuel into the flames—the noise becomes unbearable.) For the people on the ground, that is. For the pilot, the noise is muffled. It is of no consequence. You ignore it.

Acceleration jars your shoulders against the seat. Surprisingly, it keeps them there. After a moment's searching your eyes find the air-speed needle. 45 knots. 65, 85 knots. 115 knots. (A knot equals 1.15079 statute miles.) The asphalt pours toward you, runway lights flick by. Leaping speed, hypnotic in its effect.

Bill Paisley says calmly: "Hundred and forty-five at two thousand feet." You recall that the 2000-foot runway marker was the go-no-go check point. The place where, if you're not at 145 knots (about 167 mph), you abort the trip while enough runway remains to stop. But you forgot to note the check point. A feeling of inadequacy settles in.

It's the speed that befuddles. The ground blurring beneath. The Super Starfighter behaving like a missile fired on a horizontal plane. The acceleration, the blurring runway and the flowing greenery outside. And abruptly we are airborne.

A red warning light glows in the plastic handle as the wheels fold somewhere underneath. Light clicks out as all doors snap shut. Two hundred and twenty knots, 210, 300 knots and still pushed back in the seat. The end of the 12,000-foot runway appears ahead and disappears beneath. We have traversed it in maybe 10 seconds. 350 knots.

"In cold weather we've had it up to 500 knots by the end of the runway," Paisley says, making conversation.

The lower the temperature, the more air a turboprop packs into its pods—its flame chambers—and the more power it pushes out. But I'm impressed by 350 knots. Now it's 450 knots as Paisley drags in the take-off flaps and points us at the sky. We're in a steep climbing turn.

"You can see the station there." Far beneath us, and three miles back, is the "Cool Pool," station Cold Lake. The altimeter swivels through 8,500 feet. The needle loops round the dial, each circuit adding another thousand feet. The Mach remains at .92 (or 90 percent of the speed of sound at that altitude).

"You want to fly it?" This was very formal. Paisley knew I wanted to fly the thing.

"Sure," I said, also formal. "You have control."

I suppose the odd thing about taking control of a hurting jet fighter, or a DC-8 jetliner for that matter, is that "taking control" is more of a laying-on-of-hands ceremony. You don't do anything. You just glance onto the stick and throttle but you disturb nothing.

At 20,000 feet we entered cloud. Not the dark dank interior of thunderclouds but merely the shifty opaqueness of sunlight altstratus. The kind of cloud where you can see the sun but can't quite break through the clear. At 35,000 we were still in it, so Paisley talked to someone.

"Request on top," he said. Meaning "I want to leave top of all cloud," a standard clearance; "Roger, Walt. Call on top."

We were in sunshine at 37,000 feet. Dazzling bright blue sky. The white and wind- ruffled sea of cloud receded. Using the instruments for reference, I leveled at 38,000 feet. Beautiful airplane, the Starfighter. I was enchanted. And I said something emotive like: "Nice."

"She's a pig," replied Paisley. "Up here she's a pig."

What he meant was that the Canadian Super Starfighter is built for low-level flying. It is much heavier than the Taiwanese 'day fighter' version, and performs best in the lower altitudes. But that bug was a terrible thing to say. How does a fighter pilot know where he's going when he's over cloud? Historically, he hasn't known. He uses radio aids and navigation to reach a destination, but he has never known exactly where he is geographically. Thus it came as a surprise when Paisley said: "There's Lac la Biche. You can hear over that way."

He was reading his way over the ominous terrain below using the radar scope. It is this radar that gives the CF-104 its night-or-day ability.

As we neared the western end of the weapons range where we were to start our supersonic run, Paisley took over control. He also notified the people on the ground that we were starting.

"Adeus when supersonic," the man on the ground said.

They keep track of all sonic booms. By keeping track of who was supersonic and when, the RCAF is prepared for any civilian complaints that might come in.

"Upset, this private world above. Bright sunlight on the instruments, dust on the ledges. Afterburner cutting in. No physical feeling of speed, just the instruments. Air-speed nudging up, the graduated wheel under the Mach needle winding forward. It reaches Mach 1, then goes to 1.1 without a pause. We've penetrated the sound barrier."

"It seems easy," yes it's not so long since man was bumping his head against this wall of shock waves. The ghostly hammer which rendered into junk the strongest airframe."

"You want to fly it?" We were at Mach 1.4 and still accelerating. And when I have taken control he adds: "You can roll it if you like."

"Slow rolling at Mach 1.5. It's crazy. Pinned to the horizon by the spear-like probe out front. Languidly rolling round that axis. We stop the roll and watch the Mach as it slides to 1.6. Without the external tanks, the Starfighter will reach Mach 2, or twice the speed of sound. But that's just a figure on the dial for there's no sensation of speed."

"Why don't we slow down and save fuel?"

Bill Paisley was agreeable. "Alright, throttle back to 90 percent." The throttle seems to come a long way back. As the afterburner cut out, deceleration dragged me forward in the seat. The Starfighter slowed to Mach 1.2 and finally to Mach 1 itself. I smiled at the thought of "slow downing" at the speed of sound. We were back through.

"Were you supposed to tell somebody?" I asked. Paisley notified the man on the ground "We're doing subsonic."

"Roger, Walt."

We descended through the clouds once more, leveling at 13,000 feet. Northern Alberta is a vast sprawl of scrub bush and silver lakes. Paisley positioned us for a practice run on the bombing range. He called the range officer for clearance.

"Walnut is 60 miles out for initial turn-in," it seemed an incredible distance. Yet in the Starfighter, 60 miles is a mere three minutes. Paisley explained as we went along. "Our map calls for 3,400 feet, five-ten knots. This, 2,300 feet above sea level, which at Cold Lake means about 300 feet above the ground; 510 knotsairspeed (about 587 mph).

This is low-level, the final 500 feet of sky where the CF-104 pursues its work. Close to the radar defenses, the 'pilot' drops to 50 feet. At 50 feet—moving through 1,000 feet of space each second—there is no such thing as map reading. The pilot must have the route memorized beforehand. Close to the trees you keep your eyes outside. "Eyeballing it," the pilots say.

Paisley straightened on his heading. Altimeter said 3,400 feet (above sea level, 500 feet above ground), the airspeed said 500 knots. With interest I noticed him jam the throttle open to pick up the required 10 knots. As the airspeed nudged the 510 figure, he throttled back to cruise. He hadn't been fooling about the precision flying required and demanded at the OTU.

"There's Wolf Lake on your radar scope."

Sure enough, the outline on the scope duplicated that of the lake so named on the folding map I had in my hand.

"I'll show you what things look like at 50 feet."

At 50 feet, the proximity of the ground is both scary and exhilarating, it's the pure sensation of speed. The greens and browns and blacks flow by. A flash of blue water, another lake. More greens and browns. A darker line of hills ahead.

You'll notice that these hills cut out the radar image of the lake beyond. It's things like that you have to anticipate."

He meant when you're navigating by radar, you have to take into account the terrain contours shown on the map. At higher altitudes, contours count for nothing.

"There's our MCP," said Paisley. The mandatory check point. The point where the pilot starts his final timing.

From the MCP to the target, the pilot concentrates on his flying. Bill Paisley must have been concentrating for he didn't announce our arrival at the target. My inkling that we'd arrived was the abrupt pull-up and accompanying 'whump' of afterburner as he executed one of the escape maneuvers practiced by 104 pilots. In seconds we were miles away and still accelerating.

"Okay," said Bill, taking it out of A&P, "we go home."

As with all jet fighters, lack of fuel dictated our time to return to base. Within minutes we were over the long black runway, banking steeply to join the downwind leg of the circuit. Wings going down, speed falling back. Now the runway lies ahead.

"It's not like traditional planes," Paisley is saying. "You fly it right into the runway."

And when we were down and rolling, he pulled the drag parachute to help with braking. The flight was over.

During the slow trundle back to the hangar line, I had time to think about this complex weapon that is the Super Starfighter. The men who fly it— and with its success—are highly skilled, as are the greater number who keep them flying. The task is difficult and demanding. There's no thanks and little satisfaction.

Not one of them hopes to perform the function they work so hard to perfect.
That's all Roger Phillips seems
to do in Vancouver—unless
he's going after oysters,
clams or smelt.

One of these days Roger Phillips wants to
write a book called 'Fishing for Fun and Profit'. In the 50-year-old Im-
perial Oil Vancouver analyst will pack
some 24 years of interest, knowledge
and affection for the sea, its moods and
temperaments, and its finny inhabitants. For
Roger Phillips, as a friend remarked, is 'a man with a mission—fishin''.

He collects facts about fish the way
small boys collect hockey cards. His 10-
year collection of tide charts is thickly
strewed with references like '37 salmon
(including 14 bluebacks) mooched at
Navy Jack, also 17 by stripping and
16 by trolling. Thousands of stickle-
backs'. He has been a Peeping Tom
into the love lives of oysters and rock
bass, and knows to within 10 minutes
when the swarms of smelt will arrive for
the annual spawn on Vancouver's sandy
beaches. He reads books on the
sea the way other men reach for a
James Bond thriller; and his Pacific-
Ocean-blue eyes are more inclined to
light up at the sight of a well rounded
crab leg than a stage full of pirouetting
Rockettes.

During his office day Roger Phillips
is an amiable, roundshouldered man with a
quiet voice who wears unobtrusively
neat suits. But on weekends he haunts
the redolent seashore, thinning blood
hair hidden under a disreputable fe-
dora, feet encased in rubber boots and
his pleasant face alight with the antic-
ipation of yet another catch of shellfish.
Although Vancouver is nudged by
the Japanese current and perched on
the edge of an ocean, its citizens aren't
noted for their interest in seafood, ac-

According to Phillips:
'Don't know what's wrong with peo-
ple,' he says, draining the last spoons-
of his clam chowder and reaching for a
plate of crabsmeat salad (his daily lunch
menu). 'The only people I ever see
when I'm fishing for smelt along Span-
ish Banks are New Canadians. They
know that men can live off the sea,
same as they can off the land, if they
use a little time and patience to learn
how. It's easy once you know the rules.'

The road that led Roger Phillips to
a bone freezer stocked with crab, salmon,
cod, oysters and other fishy delights is
as clearly defined as the tides and cur-
rents on his oceanographic maps.

Although he was born and raised in
Victoria, he was as ignorant of the sea's
bounty as most city dwellers until 1940,
when he was made marine cargo dis-
patcher for Imperial's west coast tank-
ers and spent part of his time at sea.

Phillips then became aware for the first
time of the never emptied stock of food
in the ocean. 'Sailing along B.C.'s
11,000 miles of coastline,' he remem-
bers, 'I saw schools of herring more
than 50 yards wide that took as long
as three hours to swim past the ship. In
the small harbors along the
the ship stopped overnight, fish were some-
times so thick I could almost walk on
the water. Over the period of 10 years
I was with the ships, I guess I ate about
every kind of fish in B.C. waters.'

Transfered to a traveling job in
Victoria for six years, his interest
waned, but on his return to the main-
land in 1956 he bought a house in West
Vancouver, and things began to brighten
for the fishy Phillips family. He built
his own eight-foot plywood boat which
he takes on crabbing forays, added a
set of baby buggy wheels, and can spin
his creation to and from car, house and
ocean like a wheelbarrow.

His bungalow is a few minutes walk
from the sea. Any weekend between
7:00 and 8:00 a.m., when the salt tang
hangs heavy in the air and the tide is at its highest, Phillips puts on chest
waders, plots into the sea off the Spanish Banks
and pulls in a mouthwatering set of smelt.
When Roger Phillips and I went smelt fishing one night some weeks ago, rain was hazing insistently into the black water off Vancouver's Spanish Banks. He called out the car window to a man shuffling past, "How did things go?" The fisherman grunted disgustingly, "Damned things aren't running tonight." Phillips drew his head into the car and said with a grin, "He didn't check his tides carefully enough." (He told me later it isn't just tides that turn a man's fishing luck against him; even when smelt are running freely, during certain weeks their instinct drives them into shore just before and during high tide, while at other times they appear during and after high tides.)

He glanced at his watch and said, "In about 10 minutes I'll get enough smelt for your breakfast tomorrow—dinner as well." We chatted casually for eight minutes, whereupon Phillips drew on his cigarettes, took his 13-foot smelt net from nylon net, about three feet high and weighted with lead at the bottom. He turned the red cedar floats on his lathe, coating them with paraffin wax to make them seaworthy. He makes his own crab traps as well, of welded steel and chicken wire. "When I find a good fishing place I can supply my family and friends with more than enough crab to keep them in cocktails for months. That is, unless a commercial fisherman sees me setting my traps and claims me out." The ocean is nobody's private property, and commercial fishermen are quick to capitalize on the investment of Phillips' time and patience by laying down their traps (as many as 40) around the area where he has been successful in finding crabs. When they do this, crabs are erased from the surrounding sea for months.

Phillips, like many sports fishermen in Vancouver, tends to get red in the face when he discusses commercial fishermen. He feels strongly that the government should be more restrictive toward the catch, and method of catching, of all fish and shellfish. At least when a catch is caught by Roger Phillips, he's given a royal treatment. Even though Phillips rapidly adores to regulations size (6½ inches across) and sex (only males are legal), he finds he has enough crabs to make it worthwhile driving home daily for lunch, where his halibut noodle is a bowl of clam chowder and salad. He cooks all the seafood his family eats, and you'd only have to smell crabs being boiled at 6:00 a.m. to realize why his normally sunny-tempered wife is inclined to roll over in bed and stuff her head under the pillow. "For crabs to taste their best, they have to be cooked and quick-frozen almost as soon as you take them from the water," he explains.

He has, over the years, explicated to his own satisfaction many popular theories about crabs. "Soft shell crab is often supposed to be a great delicacy, but it's really the least appetizing eating time in a crab's cycle." He explains that crabs, at a certain stage of their development, do a strip tease with their shells. When they've shucked the shell, their bodies and legs are covered with a clear, colloquial time, they hide under a rock or clump of seaweed until their shells grow again. Like hibernating animals, during this time they're forced into a sort of sleep, and when they emerge from their hiding places they're shadows of their former plump selves, their flesh stringy and tasteless. Only when the crab's shell is old enough to have hardened, and a tiny barnacle or two has had time to begin growing on the shell, is it crab healthy and mature, with sweet flesh.

Although Phillips fellow workers ask for "any extra crabs you might have around", they're often appalled to have one of the scarlet, leggy crustaceans thrust into their hands. But if they whimper, "I don't know how to crack them", Phillips whispers out the cineograph sheet of instructions.

Pursuing the bounty of the ocean even during the winter months, Phillips generally follows the Gulf Islands, a fishery collection of small islands in the Gulf of Georgia. "Oysters are plentiful on the beaches along Gambier Island, Crescent Beach, Galiano Island—all almost of them. One man I took there to get oysters kept asking me where they were. He didn't realize the beach was so thick with them that you literally couldn't see the sand—we were wallking on oysters." Clams are found in the islands as well, and Phillips freezes 50 gallons of home-brewed Golf Island clower at a time. He uses a thong-pressed rake to dig out the fast-burrowing clams. "Get'em just when the tide goes out," he advises. "Clams burrow down further as the tide recedes because they like to be in water all the time; look for the small hole they make, and then dig into the silt clusing and jabs after 'em with a small rake," he explains, looking like a wispy Neptune as he illustrates his instructions.

As long as there is fish in the ocean. West Vancouver residents will see Roger Phillips in his pursuit of treasure from the sea. He's the man dressed like a beach bum (hattered fedora, boley raincoat and spayed rubber boots), trailed by a one-legged seagull. Old Oneleg, who was probably caretaker some years ago when a hungry or bad-tempered seal was close enough to menace him, has been a friend for five years and flies to meet the car when it stops on the beach. Although he's never incantations enough to take food from Roger's hand, he balances skillfully on his one leg close to the man's side, snapping up the occasional tidbit thrown to him and immediately being his friend seagull's eyes on the next prospect.

Old Oneleg and Roger Phillips have a lot in common, both living as they do by the sea and from the sea.
FOR THE SHELTER OF MAN

Imperial's newest affiliated company began 170 years ago but its products are as new as the jet age.
Meet Building Products of Canada Limited

by ROBERT COLLINS

If North American business is really as faceless as some of its critics claim, the blame has to begin with the people who name companies. Take 'Building Products of Canada Limited', 40 years old and, as of last summer, a wholly owned subsidiary of Imperial Oil. Nothing really wrong with the name—except that it doesn't do the company justice.

It doesn't show the face of a company concerned with the shelter of man—a face of colors, patterns, shapes and symmetry. It gives no inkling of eight Canadian plants turning out things like floor tile, in copywriters' hues of 'Aztec gold', 'palermino' and 'orchid mist.' And shingles in oblong and hexagonal shapes; plastic extrusions in 4,000 indescribable shapes; regiments of roofing paper in two-ton cylindrical rolls. And a shingle pattern that resembles colored tear drops.

Nor is there a clue, in the name, to the part BP plays in Canadians' lives. The plastic that stiffens your luggage or your son's hockey shin guards may have been fashioned by BP. Also the plastic insides of your refrigerator and the plasticized welt that holds the soles of your shoes to the uppers.

Natural gas serving ranchers in the Millarville, Alta., district runs through BP pipe. So do certain chemicals at the National Research Council building in

An endless chain of roofing in graceful loops moves through Montreal plant, ready to be cut and rolled
Ottawa. So does water for the lawn around the Stratford, Ont., theatre and for the Montreal Aéroport Hilton swimming pool.

If you lunch aboard a Canadian commercial aircraft, chances are the individual cream containers are of BP plastic. If you set foot in the University of Saskatchewan science building, the provincial forestry building in Victoria, the Royal Alexandra hospital in Edmonton or the Sun Life headquarters in Montreal you'll walk on BP tile.

Behind the anonymity of the name are people, too: 1,600 workmen, engineers, scientists, salesmen. People in plants at Pont Rouge and Montreal, Que., Hamilton and Acton, Ont., Winnipeg and East Kildonan, Man., Edmonton and Wahamun, Alta. People who make asphalt roofing, insulated siding, insulating wallboard, sheathing board and sheathing paper, ceiling tile and floor tile, fibre pipe, plastic pipe, and plastic extrusions (forms pressed out through steel dies, in a multitude of shapes and for a multitude of uses).

But if the name is not evocative, the firm, anyway, is old and respected. BP's family tree reaches back to 1795 when Bird & Son built a paper mill in Massachusetts. In 1965 they opened a Canadian plant in Hamilton, and, 20 years later, the Canadian operation amalgamated with Ruberoid Company of Ville Lasalle, a Montreal suburb, and Portoflo, Que., to form Building Products Limited (Bird & Son eventually surrendered its charter in 1949.)

In those fairly unsophisticated days when most people still used "natural" building products—stone, brick, wooden shingles—BP was fairly avant garde. It had been making asphalt roofing for nine years. Today it is one of the biggest Canadian producers of this product. The Montreal plant still makes roofing at the original Ville Lasalle site (also BP headquarters) on the banks of the Lachine Canal.

The shingles over your head at this moment might have come from this plant, starting out as a pile of wood chips, bales of rags and tons of waste
paper. These ingredients are mixed into a grey wetather paste, heated and rolled through a mill and transformed into 'dry felt'—heavy absorbent paper.

The paper, coated with asphalt and sprinkled with colored rock granules which give it durability, comes off a conveyor belt in an endless chain. Some is automatically twisted and cut into roll roofing by a machine that goes where-you-stand and turns out a 60 lb. roll every five to 10 seconds. Some goes into machines that stamp out millions of shingles per year. The shingles are made to stand up to any weather. Samples are exposed in test machines to ultraviolet rays, severe heat and cold, wet and dry cycles, and outdoors in such widely separated areas as Quebec and Louisiana. The granule coating must stand up to a hundred steel brush strokes.

For several years in the 20s, shingles and roofing were BP's major specialty. Indeed the company invented the thick-butt shingle (a tapered variety with a thick end that gave added durability and an attractive 'shadow line' on roofs). It became a standard item in North America. In 1928 BP added a line of laminated insulation board, piled together with asphalt.

Meanwhile a new kind of flooring was catching on in the U.S.: asphalt tile. BP moved promptly; in 1931 it began making the tile in Hamilton. In 1952, it became the first Canadian firm to manufacture the then-new vinyl asbestos tile, cashing in on the great post-war do-it-yourself wave. Today BP markets five kinds of tile: asphalt (which is becoming obsolete because it's less pliable and its colors are duller), vinyl asbestos, solid vinyl, rubber, and Hyapol, a Du Pont product with high chemical resistance.

There are 1,100 variations of size, thickness, color and pattern in BP tile. Yet even this isn't enough for some clients who demand a special shade conceived just for them by their architect. It means mixing a special batch.

In the cavernous Hamilton plant an exotic blend of 50 ingredients, some costing as much as $15 a pound, goes through a mixer and down a long conveyor belt, slowly changing form and color until tile is ready to be tumbled by millions of feet of steel brushes. The Hamilton plant is a crazy quilt of color, smells and sounds. Here a stack of gleaming black fibre pipes; there a sheet of solid vinyl. Here a workman controlling a thundering monster of a machine; there a white-coated technician testing tile for quality. And far upon the floor lie in 1,100 sizes, thicknesses, colors, patterns at considerable inconvenience, but in the tile business today few manufacturers can afford to turn down such requests.
The floor tile maker is as competitive and changeable as the automobile business. Tile makers constantly knock head for the latest ideas to woo the floor consumer. Patterns and colors can rise and fall in favor in a matter of months. In 1967 the hottest 'ten is the Laurel, of whom floor has everything, was embossed tile—literally, a raised design on the surface of the tile. 'The "in" colors last fall were yellow-green, mustard and mushroom. What will be the '65 rage? 'Who knows?' says Hamilton plant manager Earl Riddells. "We wouldn't be surprised to see demand for purple, one of these years."

NUTMEG, ANYONE?

Most pattern and color fads come to Canada via the U.S. but BP in 1964 created its own pattern in vinyl asbestos. It's called Wovenet, looks somewhat like broadloom and comes in colors reportedly entitled 'avocado,' "tuscan," "green" and "cinnamon." The contents of floor tile are, like its names, rather exotic for a product that gets walked on every day. Some 50 ingredients, ranging from limestone at a cent a pound to some pigments costing up to $150 a pound. Low of vinyl asbestos, the biggest seller, begins high overhead in the Hamilton plant where two workmen wearing face masks don't like an oil and pour bags of asbestos or vinyl resin into a hopper. Along the production line other ingredients join in: a liquid plasticizer to soften the resin, a stabilizer, limewater, etc.

The batch goes into a mixer, is friction-heated to about 300 degrees F, and comes out as a long strip of grey paste. It moves down a conveyor belt to get its coloring: then a pattern, if any. Rollers squeeze it to the proper gauge, or thickness. Now the heart beat of the plant. In "bang-bang-bang" stamps out eight 9 x 9 inch tiles at a blow, every second. The leftovers, looking like remnants from a bad poker game, are back for reprocessing. The finished tiles move on. Four women, wielding section cutters on wooden handles, pluck out any duds. The rest tumble off the belt to be boxed and sent on their way to some home handyman's floor.

A different process and somewhat different ingredients produce solid vinyl elsewhere. Want a sheetlboard or badminton court on your recreation room floor? Want your initials inlaid in the kitchen floor or your mother-in-law's profile laid down in silhouette tile in the living room? BP will cut tile to order in any shape and color and will number each piece on the back. Assembling is easy, it's like painting by numbers.

In the quality control section, next door to the production line, white-coated experts test and sample batches for proper size, hardness, flexibility, impact resistance, color match and color consistency. They put four tiles together against a backlight and examine under a magnifying glass the tiny space where the four corners meet. A space of more than 40/1000 of an inch is too much.

At Hamilton BP hopes to soon delve into basic research on the tile of the future. But at Acton, 50 miles west of Toronto, the future has arrived. This is the new extrusion plant, purchased in 1960, the place with strange looking products and stranger sounding names.

The plant works with such materials as polyurethane, elastomeric vinyl, polyvinyl chloride resins, elastomers, chemical systems. It produces polyurethane pipe (used by cottage owners for water systems), a rigid polyvinyl chloride pipe (for use in natural gas lines, chemical systems, irrigation systems, electrical conduit, swimming pools and skating rink refrigeration) and a multitude of extruded plastics.

GROMES' FACES

To a layman, the extrusions are the most intriguing. The key to every extrusion is the steel die, which determines the shape of the product. Acton has 4,000 dies, with an average of five new ones coming along every week, all custom-made on the spot to fit the individual requirements of customers. The walls of an entire room are hung with these steel plates with curious shapes cut from them. Some of them look like Cossacks, some resemble a lattice carrying leaves, some resemble cartoon bear faces, some resemble cattle brands of the old west, some look like a child's first attempt at art. The customer's die is fitted into one of 25 extruding machines. Raw materials—usually in the form of tiny cubes, pellets or scraps—go through a hopper into the extruder. They're heated at 350-450 degrees F into a smooth plastic paste and forced through the die like so much toothpaste.

Out comes the product, hot, soft and properly shaped. Immediately it cools under a cooling stream of water, creeps down a long gutter and finally into proper lengths. Maybe it's still for a sliding window or a sheet of opaque plastic for a refrigerator manufacturer.

Often it's an industrial lighting fixture: BP provides a large percentage of the plastic for fluorescent lights made in Canada.

FROM GASKETS TO CHEESE

There's no monestry on this assembly line. "Today," says plant manager Jack Reid, "we might be making gaskets. Tomorrow, it might be the kind of plastic that goes into containers for cottage cheese.

There's an obvious link between this plant and Imperial's petrochemical plant at Sarnia, as there is between the refineries and BP's asphalt operations. It was this kind of natural relationship that stimulated Imperial's purchase of Building Products in 1964. BP is now a division of Imperial Oil, but retains its existing management, employees and brand names. There is, however, an exchange of scientific and business know-how, and Imperial supplies many of the BP's raw materials.

The result gives Imperial a new and intimate connection with Canadian homes. It continues to deal in things all householders use, such as heating oil, fertilizer, the kind of asphalt that goes into driveways and the kinds of petrochemical raw materials that go into clothing, draperies and kitchenware. Now, through BP, it can shingle roofs, tile floors and ceilings, drain sewage and insulate walls, provide plastic track, sill and ash for sliding windows and plastic fixtures for lights, supply brick design siding for exterior walls. BP is currently experimenting with a vinyl siding for house exteriors. In 1965 it expects to bring all-plastic Everett and downtown.

In short, you can't judge a company by its name. The Imperial/BP team is far removed from the little London, Ont., company called Imperial Oil which, in the 1880s, sold lamp oil and axle grease.

It was in the first week of April, 1998, when old Capt. Jacob Croft spoke to me one morning on my way to school and offered me a job on the schooner E. R. ROMKEY & CO. This schooner of some 50 tons, was the chief carrier of freight from Halifax to West Dublin and Petriette River. About all the fish caught on LaHave Islands and vicinity by shore fishermen was shipped by this coastal boat. Since I was not yet 14 years old and in the ninth grade at school, it was a hard de-

By Gordon Welles

At 80 years of age, Gordon Romkey holds the threads of Nova Scotia's past and present in his capable hands

The trips to Halifax were heavy stuff for the boy. Once he witnessed the return of Canadian veterans from the Boer War. Another time, running an errand to the legislature, he was shown in the gallery to watch the House in session. Young Romkey in "short pants, freckled face and too soft clean, smelling of a mixture of codfish and herring" never dreamed that he would someday sit in that assembly.

Apart from the visits to Halifax it was hard and tedious life. In 1908 Romkey went to work in the West Dublin store. Eventually Romkey saved enough to buy into the business, then take it over.

In those days maps came in bars and was cut to suit the customer's requirements. Farm wives swapped fresh eggs for groceries. Everyone had a cow; the store was lucky to sell one case of canned milk per year. Most goods came in barrels.
Sooner or later everybody in West Dublin finds his way to the store, its pleasantly cluttered back office and the small brick man named Romkey.

butter, flour, rolled oats and the ever-present molasses which, at 40 cents a gallon, was everyone's 'sugar'. But soon the store began to reflect a changing world.

"Perhaps no product changed the work and living conditions more than oil. My first contact with Imperial Oil was on board the Emma C which carried barrels of kerosene. When I first went to work in the store we sold kerosene in half gallon, one gallon and five gallon cans. It was a favorite topic among thrifty folk to tell how much it cost to light the house for the winter; $10 was a good average. From 1899 until the early Twenties the kerosene lamp was about the only means of lighting. Every home had a lantern for carrying out in the evenings. It was common to sell 10 gallons of oil and 10 gallons of molasses—a Winter's supply—to each fisherman in November."

The Romkey store witnessed the next revolution in Nova Scotia's life: the arrival of gasoline and gasoline motors.

"The first motor boat created quite a stir. An old chap came in the store one morning and told me that Jake Mosher had some kind of machine in his boat that made a devil of a noise but drove the boat like a steamer. . . Our first purchase of gasoline was two barrels. We were afraid of explosions. Soon the sale increased and it was common to have 30 barrels around. Imperial Oil is the only company that has continued with us for all the years I have been behind the counter and perhaps the only firm I have never had a dispute with during those years."

Romkey put up his first gasoline pump in 1916, the same year he bought and registered his first motor vehicle—a Model T Ford. By this time he had married Etta Slater of West LaHave, was raising four children and was dabbling in municipal politics. Maybe he would have gone into the provincial government anyway but it took a squabble over a rose garden to bring matters to a head.

In 1928 local history was again at Romkey's doorstep: the first gravel road was being pushed through West Dublin. The proposed route led directly through his mother’s rose garden. Maggie Romkey's garden was famous for miles around. Whenever people needed white roses for a wedding or a party, she obliged. The community protested bitterly, but the road foreman uprooted the roses. Romkey thereupon swore he would become MLA for Lunenburg County and, as his first official act, fire the foreman. He was elected on the Liberal ticket, and kept his vow.

But his political career was not entirely founded on pique. He was a good legislator, so good that after 12 years he became Speaker of the House—a post he held 13 years. The one-time deckhand from West Dublin mingled with all the greats of Maritime politics and won their admiration. Not once was one of his rulings challenged or put to a vote.

On March 25, 1953, at the annual Speaker's dinner, the legislators of Nova Scotia honored Gordon Romkey. Robert Stanfield, then leader of the opposition, paid tribute to the old man. The late great Angus L. Macdonald, then premier, said, "The Speaker's chair has been held by many distinguished men down through the years but none commanded greater respect and affection than the Honorable Gentleman who now occupies that high position."

Shortly after that Romkey lost an election for the first and last time. He retired to West Dublin; to his business which now also includes fish curing and Packing plants; to his back office with its portraits of John A. Macdonald, MacKenzie King, and Romkey's forefathers, its prints of sailing ships, its book-cluttered desk, its ancient wall clock.

Except that he didn't retire, in the normal sense. He helps his daughter Margaret run the store. He golfs with old cronies. He and his wife are helping reconstruct the old Romkey homestead into a kind of local shrine and tourist attraction. He beats out his memoirs on a battered typewriter.

A while ago a writer asked the well-worn question that is inevitably asked of elderly men: what's the secret of your longevity? 'Work hard, don't worry about anything, keep your family life happy, have no regrets,' Romkey said briskly. It was plain that, to him, this was not just a trite answer to a trite question. It was his blueprint for life.
OF BOOKS AND STUDENTS

Is it true, as some critics claim, that today’s university student reads fewer and poorer books than his father’s generation? Not so, says professor of English Edward A. McCourt.

A popular 17th century essayist, John Earle, said of the typical young gentleman of the university of his time, ‘that his study has commonly handsome shelves ... but his books he is loath to untie or take down.’ Each succeeding generation has repeated Earle’s charge that students don’t read, and never more loudly or strenuously than today. Voices—mostly those of university professors—are everywhere heard prophesying doom because students no longer read good books. The demands and distractions of the electronics age, so we are told, make reading for reading’s sake a virtual impossibility—and besides, the student’s taste for literature has been so corrupted by bad teaching (always, of course, at a level lower than that represented by the complainant) that if he reads at all he reads trash.

Is it really true that today’s high school and university students read fewer—and poorer—books than did their fathers and forefathers? Undoubtedly the nature of today’s world appears to lend a good deal of substance to the charge. Specialization in any field, particularly the sciences, or training for any profession, imposes such enormous demands on the time and energy of the intelligent student that we could hardly blame him if he sought his relaxation through a medium—radio or television—making no intellectual demands on him whatever. Indeed, our first impulse when we consider the enormous complexities and distractions of modern living is to marvel that today’s student reads so little but that he reads anything at all.

It is, however, unfair to assume that because the contemporary world differs so markedly from outward things from any which preceded it that the reading habits of the young are bound to differ too, and that literature—by which academics usually mean books approved by preceding generations, hence safe to extol—is now the exclusive stamping ground of Honors English students (mostly dweezyed coeds who think the Romantics are gorgeous). On the basis of my own experience in university teaching over a period of nearly 30 years I would say emphatically that the assumption is false. What many of us who are teachers cannot recognize—or refuse to admit—is this: that when we say students no longer read we mean they don’t read the books we ourselves read at the same age. When we cry out against the reading habits—or lack of them—of today’s generation of students, we are in reality all too often mourning our own lost youth.

The truth is that, in Canada at least, students today probably read on the average more books than their fathers did, but in the last two decades there has been a marked and immensely significant change in the kind of books read.

In a single week during the past winter one student introduced me to the Icelandic novelist and Nobel Prize winner, Halldor Laxness, a second sent me back to a re-reading of Ignazio Silone’s Bread and Wine, and a third lent me his copy of Fanny Hill with a warning to return it promptly as Fanny had a long waiting list. (None of the three was in Honors English; two were science students, the third in physical education.) This was not, in my experience, an unusual week. What I find characteristic and significant about it is that two of the three books which my students thrust upon me were by foreign writers.

Thirty-odd years ago the student interested in literature read, of the dramatists, Shaw, Galsworthy, O’Neill, O’Casey. Today he reads Cocteau, Anouilh, Ionesco and occasionally Tennessee Williams. He reads no poetry to speak of—among undergraduates poetry died with Dylan Thomas—and unless he is that rare conscientious soul who feels it his duty to support native culture, no Canadian literature whatever except Stephen Leacock. Contemporary English novels he largely ignores, especially since the Angry Young Men turned out to be merely petulant; and among the titans of the 20s only...
Somerset Maugham continues to bold high place—this no doubt a tribute to the power of the authentic story-teller. American writers of the 20th—Hemingway, Steinbeck, Faulkner, Fitzgerald—still claim their devotees but contemporary American novelists, with the possible exception of that im- passedion spokesman of the oppressed, James Baldwin, can- not compete in popularity against the Europeans. Caesar, Sostrovsky, Tolstoi, Chekhov—than read Scott or Dickens or Thackeray, and with much more sympathy and under- standing. There are, I think, three major factors operative in our society which largely explain this change in taste.

First, ever since the end of World War II Canadians have been swimming over Europe in numbers not remotely ap- proached in any earlier time, and they are not waiting until retirement to do so. All summer long, ships and airplanes un- loaded mobs of high school students intent to work and play in half the countries on earth. Athens, I need not say that the democratized Grand Tour is now the accepted un- official postgraduate course for the university student. No doubt many of our youthful tourists fail to penetrate very far beyond the confines of the Follies-Berghé and Harry’s Ameri- can Bar (or their numerous equivalents), but others develop a genuine and enduring curiosity about the countries they visit, which impels them to study these countries through the best and most readily available media—their literatures.

Second—for more than a generation now, Canadian life has been made increasingly cosmopolitan through the influx into this country of large numbers of educated Europeans. Before the day of the totalitarian terror most of our European immigrants were drawn from within a narrow range of the relatively undutied. Since then the range has been signifi- cantly widened. Scientists, academicians, professional men (of international reputation in their respective fields) have immeasurably enriched such native culture as we pos- sess. Now the children of these immigrants are growing up, attending high school and university, and they too are play- ing their part in extending our range of cultural interests and in some respects shifting their direction. A few of these young- ers tend to reject almost completely their European heritage in their zeal to be more Canadian than Canadians, but the vast majority are eager to know all that may be known about the lands from whence they came, so turn naturally to the books of those lands. Beyond question these sons and daugh- ters of cultured Europeans are exercising in high school and university an influence out of all proportion to their actual numbers, and making a significant contribution to the de- velopment in Canada of a genuinely cosmopolitan, as distinct from chauvinistic, culture.

Lastly, the astounding development within the past two decades of the paperback publishing industry has made available to people everywhere a wealth of reading material unread at half a century ago. The paperback world is a revolutionary world, and the immediate reaction to it of those of us who grew up in a hardcover world is one of shock and suspicion. Yesterday we bought our books in proper bookstores, or, if we lived in small town or country, through the mail-order catalogue. Today, the paperback display in the drugstore is as ubiquitous and gaudy as the juice box, and so many critics say—in its contents equally offensive. No doubt many of the paperbacks verge on the pornographic, but it is pos- sible that the ready circulation of such books may help to create a healthier moral atmosphere (evidenced by a student's lending me Fanny Hill without a trace of self-consciousness) than prevailed in the days when the great 'classics' of pornog- raphy were circulated illicitly or locked up in the 'ashen' cabinet of a drugstore. Already, I think, the persuasive snigger is giving way to the wholesome belly-laugh. Pornography, like the streetwalker, loses much of its allure when exposed to the light of common day. (It is even possible to defend paperback art. The bony dame) bursting out of her stays may well turn out to be Dostoievsky’s Moll Flanders—or better and more, surprising still)—Jane Austen’s Miss Elizabeth Bennett.

But even though we concede the publication of a great deal of rubbish and of some books actually harmful to the young, the case for the paperback is overwhelming. It is true that much trash is now available at little cost, but so is an immense range of worthwhile books. Everywhere the classics are ranged beside—or against—the trivia. And they are being brought to us in paperback. Further, the fairness to the publishers we should remember that until the emergence of the paperback, cheap editions of the contempo- rary novel (or in many instances classics at any price whatever) were simply not available in Canada. Indeed, never in the history of mankind has it been easier or cheaper for the student to acquire a library. And having bought a great variety of books—only for their covers—he is sooner or later tempted to read them. And even if he never reads them he none the less acquires a knowledge of their contents through some mysterious process of osmosis familiar to all who live in close contact with books over a considerable period of time.

It is argued by some critics of our educational system that the taste of many students for good literature is destroyed early by bad teaching and the exaggerated emphasis laid by our curricula-makers on classics which can be properly sav- ored only by adults. I do not think there is much substance in the charges. A taste for reading may not be developed in the classroom if the teaching is unimaginative and pedantic, but if it exists at all it is not likely to be destroyed because it can always be satisfied—or at least utilised—outside the classroom walls. And if the high school and university stu- dents of today find Scott and Dickens and Thackeray dull, it should not be a matter of great concern to us, nor should we blame this lack of appreciation on indifferent teaching. A book is important only so long as it has something to say to us, and when it ceases to do this it must yield place to one which does. What really matters is that the students of today read at least as much as their fathers did, and the percentage of worthwhile books among those they read is probably just as high.

Nor need we fear for the future of literature. Today more books are being published, sold and read than ever before in the world’s history.

It is surely clear by now that as long as books are made, people will read them. And of the making of books, said Sarge- ton, there is no end.

In an age of air purifiers, fresheners, conditioners, deodor- izers and humidifiers, it’s nice to know there’s still room for a small sink.

Consider, for example, the much maligned mercaptans, those compounds of sulphur, carbon and hydrogen occurring in petroleum. Almost all crude petroleum contains some sul- phur. During refining sulphur compounds with carbon and hydrogen atoms and one of the unavoidable results is the over- powering essence of mercaptans. Most mercaptans smell like a convention of mangled skunks in an unventilated cellar.

Until now in Canada mercaptans have been treated with the disdain reserved for any odor that can’t be rolled on, sprayed over or filtered through. They’ve been removed from crude oil products and natural gas.

But next summer Imperial will open an $800,000 plant in Sarnia, Canada’s first dedicated to the production of a good, honest stink. By a process developed in the company’s re- search laboratories, Imperial will be purposely making mercap- tans—two of them designed to put the smell in natural gas. Because natural gas is almost odorless, mercaptans are added to give warning of a leak somewhere.

Natural gas distributors in Canada have been importing their smells. Now, through Imperial, we’ll be able to sniff the home-bred stuff, made synthetically to exact specifications.

The new plant will also add the lie to the myth that all mercaptans smell. Heavier ones, like tertiary dodecyl mercap- tan, have almost no smell. Imperial will make tertiary dodecyl by combining tetrapropylene and hydrogen sulphide. It is used in the manufacture of synthetic rubber to control some of its properties.

Of the innumerable mercaptans produced by refinery processes, only five have so far found any use in industry. Imperial doesn’t intend to make them all. But the new plant will provide ample testimony that in these times of almost obsessive preoccupation with odor-reducing antiseptics, we still retain a tender nostril for a distinctive Canadian stink. [phew!]

In Imperial Oil Review February 1965
If you’re going eastward, you climb aboard at Port aux Basques on the southwest tip of Newfoundland.

And if your train isn’t submerged in snowdrifts, if the curse placed on it by a Micmac Indian sparrow isn’t renewed, if it doesn’t encounter a moose, the ghost freight train or any more fighting women of Fosstrap, and if it gets the you-may-pass sign from Lauchie MacDonnell, the human wind gauge, you’ll emerge 23 glibly chaotic hours later in St. John’s at the other end of the province. To traverse the wilderness of the 300-mile-wide island, you’ll have been jiggled along 547.8 meandering miles on the crookedest roadbed in Canada and the longest stretch of narrow gauge line on the continent. All this at a blazing average speed of about 24 miles hourly. The locals, with a sort of sardonic pride, call it the Newbie Bullet, probably one of the slowest crack passenger trains in civilization.

It is, admittedly, a hell of a way to run a railroad, but then the line that
St. John's, enemies of the railway started rumors that their flags were in reality Canadian flags, that once erected that land would go to Canada and local people would be turned out. The village women, armed with broomsticks, clubs and pitchforks, marched on the surveyors. They kept up running guerrilla warfare for a whole summer,Graduating to rocks (and snowshoes in winter), even shaving the hapless invaders with brine and pickle jar water. They were finally driven off by bayonet-armed militia from St. John's.

With Fostrap subdued, the railway began its narrow gauge journey on tracks built three and one-half feet apart, rather than the normal four feet eight and one-half inches on the mainland. It was felt the island couldn't afford a standard gauge line, and the legislature specified 'the railway intended to be constructed shall not be what is deemed in England or the United States a first-class railway.' It sure wasn't—it went broke anyway before the first 60 miles were finished—but because of its narrow gauge it became something of a curiosity to railway buffs. The next longest surviving narrow gauge in North America is the 263-mile Deaver and Rio Grande Westerns.

And the Newfie Bullet survives despite a curse invoked on it by a Micmac squaw, who reached into her bag of whohannes when she discovered some baskets she had left in a station yard were damaged. That year the railway was battered by one of the coldest, windiest, bitterest, snowiest winters in living memory. And whenever the weather whipped up and the train doesn’t turn up on time, old-timers mutter knowingly about those dashed baskets in the station yard.

Canadian National Railways brought some semblance of order to the operations (new rails, new yards, 1,500 new pieces of rolling stock, 50 diesel units to replace the steam locomotives), for which some Newfoundlanders may never forgive it. For the Bullet is a throwback to the grand old days of devil-may-care railroading, when the townfolk wandered down to the station to watch the trains come in and see them off. It’s still so in Newfoundland, because the people somehow feel close to the railway that opened up their heartland, built up their pulp industry and mining operations and now employs 6,000 of its citizens. A trip on the Newfie Bullet is an adventure—perhaps a little less so since the CNR started taking the schedules seriously—but an adventure none the less. There’s always the chance one of the island’s plentiful moose will wander onto the track and try to stare down the diesel engine. Some have tried it—and lost. People still fondly recall the time seven of them tried it all at once. United, they fell. And since the CNR raised the track above the driveway, bought new snow clearing equipment, and brought in radio-equipped snowmobile patrols, there’s not the fun any more of getting mauled in the 40-bolt snowdrifts along The Topsails, one of the worst wreck spots in Canada, in a remote north-central part of the island. Trains arriving on time somehow remove the uncertainty that turns any trip into an adventure.

All this modernization and running on time hasn’t dampened too much the locals’ enthusiasm for a run on the Bullet. It’s still a good excuse for a social whirl. Guitar strumming, sing-songs, card games are dealt over suitcases, strangers swap railway yarns and perhaps wonder when the ghost freight train will turn up again. It hasn’t been seen since 1912, when stationmaster Leo Brazil insists he saw it rattle by his station at bleak Arnold’s Cove, though officials insist just as strongly there wasn’t a train within miles of Brazil.

One night the year before, at the tiny station of Quarry, agent-operators George Hardy and William Boyd rappled out a routine telegraph report that freight special No. 2 had just zipped by that morning. The dispatcher tapped back there wasn’t a train within 100 miles of Quarry, would Boyd and Hardy kindly go back to sleep. But Newfoundlanders prefer to believe Boyd, Hardy and Brazil, and wishfully look forward to the day another lonely but lively-minded stationmaster will conjure up the ghost freight train and renew the controversy all over again.

Despite the $263 million spent in total on the line since 1949, none is as
The Learning Page

VANCOUVER'S FIRST GAS ATTACK
North America's first gas station opened for business at the corner of Cambie and Smithe streets in downtown Vancouver in 1908. That first day, its Imperial Oil customers were serviced from a length of garden hose attached to a 15-gallon kitchen water tank.

GOT A HOUSE ON YOUR BACK?
Travellers in Arctic regions may soon be able to carry their homes on their backs, rolled up neatly like a bedroll. The Ontario Research Foundation is experimenting with instant, throw-away houses made, among other materials, with oil derivatives. When unravelled, they're shaped like king-sized sandwiches, with a centre layer of polyethylene-coated aluminium foil containing a powdered foamable epoxy resin, surrounded by glass-fibre-laced-covered thin asbestos mats. The mats are impregnated with a sulphur-iron powder mixture, which when ignited gives off enough heat to foam the resin. The packroll expands into whatever shape it's been prefabricated, either flat sheets or igloo-shaped, insulated houses with walls three inches thick. The packsroll, which ignites in temperatures as low as -45°F, could be available in sizes to shelter from one to a dozen people.

CANADA FOR CANADIANS
Canadians are traveling more within Canada. On a per capita basis, the average Canadian travels 2,802 miles yearly between communities in his country, according to latest statistics. He averaged 2,694 miles five years ago, just 2,332 ten years ago. Of every 100 miles traveled, he made 85.7 in a car, 5.2 each in bus and by plane, and 3.9 by railway.

WHO'S WHISK IN HARDTOP?
Only four countries in the free world have built more paved roads than Canada. At last count, the U.S. had 1,310,000 miles of paved roads, followed by France with 245,000 miles, Great Britain with 196,135 and West Germany 131,100. Canada has 77,300 miles of paved roads. Two countries, Guinea in Africa and the Federation of South Arabia, have yet to build their first paved miles of roadway.

BAD NEWS FOR MOTIFS
Some of the best quality blankets are made with oil-derived acrylic fibres. Acrylics are less likely to mat and shrink than wool blankets. They're also softer, lighter, but thicker (warmth in a blanket, it's ability to prevent body heat from escaping, is directly related to thickness). And acrylic blankets are inherently mothproof.

A IS FOR ASPHALT
Asphalt has been used longer than any other crude oil product. Noah coated his Ark with it. Waterproofed Mose's basket when he was abandoned as a baby on the Nile River. Asphalt was used to mortar the stones of palaces erected in Iraq more than 6,000 years ago. And Piny the Elder, the Roman naturalist, recommended it in cases of gout, leprous, skin eruptions, itching, toothache, shortness of breath, for straightening eyelashes and driving away snakes.

COMFORT BY THE buckET
Three years ago only a few cars (other than sports cars) carried individual bucket seats. By 1964, 18 percent of the new cars built had them, and one automobile manufacturer believes that it's conservative to estimate that by 1970 bucket seats will be installed in 33 percent of the cars produced. Longer vacations (with attendant longer driving times) are increasing demand for the more comfortable individually adjustable seats, which reduce driving fatigue.

PETROCHEMICALS COMING UP FAST
Petrochemicals is where the action is in the oil business in Canada. True, less than two percent of all hydrocarbons processed from oil and natural gas is used in the petroleum industry, to make everything from golf balls to pharmaceuticals. But few industries are growing so quickly. With the increased use of resins and plastics derived from oil and natural gas, sales of the Canadian industry totalled about $300,000,000 last year. Today the primary producers of petrochemicals have more than 25 plants, compared with three plants in 1947. This growth is expected to continue. By 1970, sales should increase to about $500,000,000.

COMMENT
'Governments can throw away or inadvertently undermine their countries' competitive position in world markets not only by the size of the tax burdens they impose, but also by the manner in which they impose them. Governments can do it also by actions which distort the economy and burden it for long periods with a faulty distribution of capital and labor resources, or with other unreasonable costs. Governments can also, on the other hand, contribute to an environment of competitiveness by creating a climate which rewards initiative and adaptability, a climate which penalizes the ineffective, the inefficient, and the non-competitive, a climate which thereby tends to ensure that scarce resources of capital and labor are continuously directed to their more effective uses.'—Ronald S. Ritchie, director, Imperial Oil, speaking in Vancouver.

Railway stations everywhere are vanishing as train service declines. But this one at St. John's, at the end of the line, still thrives.