Covers and P. 21-25—by Ray Nicholls

The Fuel That Changed Our Lives . . . page 2
Transportation feats that were impossible in gravity’s day are now everyday miracles, thanks to gasoline. Here’s the story behind this priceless fluid that sells for pennies.

What The Auto Has Meant To Canada . . . page 8
Now our second largest industry, the auto has also laid a continent at our feet, brought us a new suburban way of life, bumped government treasuries and created jobs for half a million Canadians—by Jay Graham.

The Story of George Stewart . . . page 12
After 59 years with the company, G. L. Stewart has retired as chairman of Imperial’s board—by Hal Travers.

The Independent Businessman . . . page 16
One of the biggest personal enterprises created by the automobile is that owned by the man behind the gasoline pumps. He is a businessman of many parts, both at his station and in the community—by Michael Sacit.

Nostalgia On Four Wheels . . . page 21
Old-car lovers would rather spend time and money on their antique autos than on plush modern limousines. And hundreds of Canadians do—by Earle Beattie.

New Marketing Division . . . page 25
A new division in the marketing department now handles sales of oil products from refineries both at home and abroad.

Look Out—A Woman Driver! . . . page 26
Since the time of the Romans, men have cursed women drivers. Now they find they are safer, if not better, drivers. What’s the reason? Nobody knows—by June Colwell.

Hurry, Here’s The Bus . . . page 30
Charlie Hill and his interurban bus-driving conferees hear this warning every day as they take millions of Canadians just about anywhere they want to go—by Jean Donald.

Photo Credits: Malsk (inside front cover); Stoff (front and back covers, P. 12, 13, 15, 21-25 and 30); Peter Croydon (P. 31, 32); Editorial Assoc. (P. 33); S.N. Bureau of Information (P. 33); Miller Services (P. 33).

Research In Two Industries
Two of the most important and revolutionary discoveries of Man were fire and the wheel. From fire he got heat and energy. The energy he harnessed to the wheel and so, in time, came the internal combustion engine and the automobile.

From the time of earliest recorded history Man has known of petroleum and used it as a source of heat. He knew it first, though, only as a gummy substance or an oily smear on the earth’s surface that would burn.

During the centuries that passed while Man was harnessing the wheel, first to himself and then to animals, petroleum as we know it today lay dormant, often miles below the earth’s surface. Then Man found that it lubricated wheels better than bear grease and other animal fats; that it lighted his home. So Man began to dig and drill for this strange liquid.

In 1886, Carl Benz put a carburetor on an engine designed by a fellow-German, Gottlieb Daimler, installed it on a tricycle mounting, and the first auto was born. Within three decades early oil refiners were seeking methods of getting more gasoline—which they had previously regarded as a useless and dangerous commodity—from crude oil. It was the beginning of a program of research in the oil and auto industries that today has placed more than 45 million autos on North America’s roads.

The results of this research have revolutionized our way of life and made commonplace, transportation feats which five decades ago would have been miracles. They have laid a continent and its products at our feet.

This edition of the Review is devoted to the automotive industry and its oil industry partner, gasoline; and to the men and women in the plants and laboratories of these two industries. From their efforts will come even finer cars and even better gasolines.
At Montreal's international airport, a businessman steps aboard an aircraft. Sixteen hours later, at 8 a.m. the next morning, he steps onto the tarmac of an airport in London, England, ready for a sales conference.

In Toronto's outlying suburbs, a housewife drives her husband to the bus terminal, drops the kids off at school, does her shopping, attends a club meeting and returns home in time for her household chores.

In Saskatchewan, a farmer on a tractor cultivates field after field in the time it took his father, working with a team of horses, to cultivate a few acres.

In Halifax, truck drivers in a transport company's yard climb aboard their tractor-trailers. Forty-eight hours later Montrealers are eating lobster taken from the Atlantic.

These apparently unrelated incidents are really closely connected. They are all made possible by gasoline. Because it flows from the pumps of Canada's 32,200 service stations in immense quantities—last year Canadians used almost two and three-quarter billion gallons—gasoline is regarded as quite ordinary. Actually, it is a force which has altered the way in which we live, fight, and even the way we think.

Though the wheel was invented in late-Prehistoric times, it was gasoline that really put the human race in motion. In Canada, we have exchanged the rocking chair and front porch for enough automobiles to transport our entire population. Gasoline permits us to live where we prefer, work where we like, and go where we please. It is our universal passport.

Man has known of the existence of petroleum for more than 6,000 years, but for less than 100 years has he known that it possessed the properties that could light and lubricate his world, and for less than 60 years he has been aware of the amazing motive force and source of energy it put at his command—gasoline.

Since those days, when he wouldn't take gasoline as a gift, and, in fact, spent much of his time trying to get rid of it, Man has feverishly racked his brains for ways of getting more and better gasoline from every barrel of crude he extracts from the earth. And, in these 60 years, gasoline has come a long way.

Thirty-five years ago, for instance, the only gasoline available was a fuel that was simply separated from the crude oil. Its quality was as good or bad as the quality of the crude from which it was distilled.

Today, because of the talent of petroleum researchers and the skill of petroleum refiners, the Canadian motorist buys a gasoline which is at least 30 percent more efficient: two gallons of it will do the work of three gallons of the gasoline sold in the Twenties. And, the price per gallon, exclusive of taxes, is cheaper—despite the increased cost of almost every other essential commodity.

This improvement in gasoline quality has made possible today's heavier, larger cars, with improved engines, higher compression and greater efficiency and power. Modern gasoline is made to perform with split-second timing from formulæ which often take years of research to develop.

A good gasoline is designed to provide five basic qualities: quick starts, even at below-zero temperatures; fast engine warm-up; rapid, smooth acceleration; constant power for highway driving, and economical burning for maximum miles per gallon. While performing all these tasks in all types of car engines, it must burn cleanly to keep the engines free of harmful and power-destroying deposits.

“Each of the five basic qualities is important, but one must not be emphasised to the detriment of the others,” says Dr. George Gard, manager of Imperial's research department. “An ultra-quick starting gasoline won't give the mileage. If you concentrate on mileage alone you'll need a fire to warm up the

Imperial Oil Review, February 1956
measure of octane requirement, the Sarina lab men carry out what are known as "parking lot surveys." By an arrangement with local operators, cars are borrowed from company parking lots. These cars—taken as they come—are put on the road and run with experimental and present-day gasoline. If the refiners fail to get full performance from the gasoline, the car's carburetor, timing, and spark plugs are checked. If they are not properly adjusted (and many aren't), the fault is correctly attributed to the gasoline again. By a time a parking lot survey is completed, the gasoline under test has faced just about every automotive whim and fancy, for like fingerprints, no two cars are alike.

When the research team has developed the formula for a new gasoline, the refiners take over to make its components and blend them to the desired prescription. Special refining units may have to be designated for this kind of work. It is in Canada, Imperial alone has invested more than $100 million since 1946 in new refineries and in new units for established plants. At least one-third of this amount has gone into the extraction of gasoline and the hundreds of other oil products in daily use.

The refiner first separates the crude into what he calls "fractions"—the various grades of gasoline (or other products) he is interested in. The products in the crude vaporize at relatively low temperatures and the larger ones at higher temperatures. This helps the refiner. He is able to split the crude into fractions by boiling it at high temperatures and then withdrawing the vaporized fractions as they condense at different levels in a tall steel tower.

One of the most important jobs that has to be done is this is the conventional gaso-nylour prepnundad gaspdky used to pour in large quantities into their "horseless carriages," and by itself, just isn't good enough without a mixture in a cylinder engine. In any case, you can't get enough off it from a barrel of crude.

Faced with the problem of increasing the yield of gasoline from a barrel of crude, the industry found a way to change the structure of one of the heavier oils (the asphalts) and then to turn it into the lighter gasoline-type compounds. This is the process called "cracking," which literally shatters the heavier molecules under high temperatures. This produces some of the greatest benefits—not only was the yield of gasoline increased, but the quality was improved.

Later it was found that even better gasoline could be obtained by adding a catalyst to the cracking process. A catalyst is a substance that guides and speeds up a chemical process without itself being changed. It is much like a football coach who directs the plays of his team, but doesn't play himself. The first fluid catalytic cracking plant in Canada was installed at Imperial's Montreal refinery in 1940.

To improve the quality of his "straight run" gasoline, the refiner may put some of it through a unit called a catalytic reformer, which does just what its name suggests—reforms molecules into more useful forms and also helps to reverse the cracking process and can build up small molecules in the light gases into heavier gasoline molecules.

The refiner now has a choice of materials for his gasoline. He begins to assemble them with the care of a druggist in the proportions set down in the formula. But where the druggist works with powders and essences, the refiner deals in hundreds and thousands of barrels.

For quick starts he adds "light ends"—small hydrocarbons that vaporize instantly in the engine. The amount varies with the seasons—more in winter and less in summer. On a hot summer day, gasoline overloaded with light ends will vaporize in the fuel lines and leave the motorist with a stalled, immobilized one-ton hunk of metal. However, in winter, these components are essential for quick starting.

For acceleration and quick warm-up he adds light materials. They are, in turn, precisely balanced by heavier hydrocarbons to give the gasoline power and good mileage qualities.

In fall and winter he adds a petroleum derivative—such as Imperial introduced into Canada in 1954—which is tailored to do a special job; it keeps moisture from freezing in the carburetor and stops awkward stalling at traffic lights before the engine has had a chance to warm up. Freezing of moisture in the fuel lines is also minimized.

So far the gasoline blend contains only materials derived by various methods from crude. This basic gasoline would do all that is required of it to power an engine, but in doing so it might not be entirely satisfactory. For instance, it still might knock or it might leave gummy deposits. To correct these faults the refiners add certain corrective compounds. Every well-known automobile gasoline on the Canadian market contains "additives". Many have more than one.

One of the most important knocks, knocking, a problem that has existed since the early days of motorizing, and which, some refiners think, may again become a serious problem in future when the consumption of hydrocarbon gases goes up.

Let's take a look at a car engine. On the intake stroke a little vaporized gasoline and a lot of air are sucked into the top of the cylinder. During the compression stroke, the piston squeezes the mixture. An electric arc then flashes across the points of a spark plug and sets the fuel-air mixture on fire. This first takes place at great speed. At 50 mph each cylinder fires 20 times a second.

If the gasoline is properly balanced and the engine in good mechanical shape, the fuel burns evenly across the cylinder head, and the expanding gases give the piston a strong, steady push on its downward stroke.

If the kind of gasoline (one that doesn't match the octane requirements of the engine) is used, the fuel-air mixture, instead of burning evenly and providing great power, literally explodes, much like a bomb. The power in the fuel is dissipated uselessly, and it fails to give the piston—and the car—the even thrust it should. This explosion is heard as a distinct audible knock or "ping" and can damage the engine.

There are several compounds that can be added to gasoline to control knock. The most commonly used is TEL—tetra-ethyl-lead. One ounce of this liquid helps to make gasoline burn evenly. Cracked gasoline, as it comes from the cat cracker could, under certain conditions, form a gummy deposit on the cylinders and intake valves. To prevent this, it must be further treated and a small quantity of a chemical called an inhibitor added.

One of the principal things the Sarina research team has been able to decide and design the kind of gasoline we'll need in 1960. At this very moment at Sarina, four years before the 1960 autos are on the market, they are working on the formula for the gasoline these cars will use.

One of the chief things the engine test men reveal is the octane number required to power the cars of the future. Octane number is simply an arbitrary yardstick for measuring the anti-knock quality of gasoline. Many researchers believe that the high-compression cars of the future will need 108-octane gasoline.

One of the oil industry's greatest problems is to find a way to provide, if necessary, 100-octane fuel at low cost. The higher octane ratings go, the more expensive it is to increase them. It is estimated that an increase in the octane number from 90 to 110 is at least five times more difficult and expensive than an increase from 50 to 60. One U.S. authority estimated that every time the octane rating of gas increases one number in the present gasoline range, it costs the oil industry half a billion dollars in new plant and processing expenses.

To make sure that their gasolines have the five required basic properties, refiners work not only for test cars but also for the average car in an average condition, and to get another
Combustion chamber deposits raise the octane requirement of an engine, and, if the refiner hasn’t made allowances for it in the gasoline, the engine will knock. The deposits are composed of carbon (left by incompletely burned gasoline), lead salts left by the TEL, particles of iron worn off the engine and dust brought in through the air intake.

Lubricating oil contributes to carbon deposits, too, although it is made from distillate oils, these deposits are kept to a minimum. A distillate oil is one made from one of the fractions obtained by distillation. Having been vaporized once, oil in the cylinder will vaporize only again under the intense heat there and blow out through the exhaust.

These various deposits can, under some circumstances, cause knock, pre-ignition (when the fuel-air mixture ignites too soon) and misfiring (when for some reason the plug doesn’t spark). What happens in pre-ignition is this: small particles of the flaky deposit in the combustion chamber become glowing hot and fire the gasoline vapor before the plugs have a chance to act. This action wastes power, because the piston is not in position to receive the thrust.

The reason for bad engine performance sometimes is climatic or mechanical. For instance, on a very hot day engines tend to run hotter and may knock. Faulty thermostats, slipping fan belts and clogged cooling systems are frequent causes of knocking. A 20-degree Fahrenheit increase in the temperature of a car’s cooling water will raise the engine demand by as much as three octanes.

Air pressure, humidity and temperature all affect an auto engine’s efficiency. A car at sea level in Vancouver needs gasoline several octanes higher than one in Calgary where the air pressure is lower. Humidity lowers the octane requirements of an engine. That is why many motorists find their cars often run better on wet or humid days.

Because of these factors, climate and geography play a role in gasoline making. Imperial refiners tailor their gasolines for climate, altitude and temperatures. The gasoline made for Regina is different from the gasoline made for Halifax or Toronto or Montreal.

But a role just as great in a car’s performance is played by the driver or the mechanic who maintains the car. If the experience of Imperial’s parking lot surveys is a fair cross-section of Canadian automobiles—and the scientists feel it is—then many automobile troubles are purely mechanical.

For instance, it was found that in 27 percent of the cars tested the spark timing was retarded. A retarded spark fires the fuel too late and is one of the greatest causes of power loss. In a comparable United States survey 33 percent of the cars were found to have retarded sparks. When adjustments were made the engines performed as their manufacturers—and the gasoline refiners—intended.

A few vehicles were found to have poorly-adjusted carburetors, faulty cooling systems, plugs that needed cleaning or replacing due to normal use, and other faults which are easily corrected but take a toll of the engine’s performance and of the power in a gallon of gasoline.

Imperial’s experimenters concluded that if a car is in good mechanical condition using clean-burning, balanced gasolines and lubricating oils, there should be no knocking and no harmful deposits in contemporary Canadian auto’s.

And the future? The researchers are confident that whatever the engine, they will be able to satisfy it. The industry is never still; the search for better gasolines never ends.
It's given us our second largest industry and jobs to half a million Canadians. It's laid a continent at our feet and helped create a new way of life—post-war Suburbia

What the auto has meant to Canada

by JAY GRAHAM

There was only one small cloud on the horizon, a cloud caused by the appearance on Ontario's dusty roads of a strange contraption called the automobile. With these words, a grand old man of Canada's automotive industry, R. E. McLaughlin of Oshawa, now in his 85th year, recalled recently the birth of the horseless carriage at the turn of the century.

By 1905, when McLaughlin was gearing up the family carriage company to produce the new “contraption,” there were only 565 cars in Canada and motorizing was considered an adventurous, sporting thing. In the U.S., the Ford and Cadillac companies were not five years old and carriage-maker William Durant had 750 Buicks scheduled for production that year. R. E. Olds’ one-cylinder Oldsmobile was commanding attention on the dirt and gravel highways. In England, Charles S. Rolls and Sir Henry Royce were about to bring out their first Rolls-Royce, the “Silver Ghost.”

Today the small cloud on the horse-and-buggy horizon has become an immense industry and the strange contraption on the dusty roads has shaped itself into more than two and a half million cars driven by Canadians on asphalt roads and highways. With them are one million trucks, buses, motorcycles and tractors. Only 50 years after the car makers swung into production, one Canadian in six has an auto, and Canadians spend more each year—two and one-half billion dollars—to buy and operate their cars than the country spends on national defence.

The immediate effect of the Motor Age in Canada was to link communities with each other, bringing the country to city dwellers and the city to the country; to link provinces and regions by east-west travel and to make all the United States a near-neighbor. Back in 1900 not one out of 100 urban people had a horse and buggy and families traveled by rail only on rare occasions. In 1956 they use an automobile to get to work, shop, visit, go to a show, take a holiday or just to get out of the house and “motoring” about. A continent has been laid at the feet—or wheels—of Canadians.

In the post-war world, the automobile has accelerated this revolution in the Canadian way of life as half a million people found themselves mobile enough to move out to the suburbs from congested city areas. William A. Wecker, president of General Motors, calls it an “explosion” in our cities. Out of the explosion’s smoke has come a greener, more expensive life in suburbia with its big shopping centres, playgrounds, gardens and varied community activities. In the process, the machine that made it possible has emerged from the luxury class to become a necessity.

At the same time the automotive industry has loomed larger and larger in our economy. Sales of vehicles account for one-fifth of all retail business done in Canada. From one wagonworks turning out a car every three days 50 years ago, there are now 20 manufacturing plants turning out some 1,300 vehicles a day—close to half a million a year. The motor vehicle industry is Canada’s second largest, topped only by pulp and paper.

Like a new world set in whirling motion, the auto industry has had a magnetic effect on our economy, attracting a ring of satellites around it: finance companies which in 1955 loaned $725,545,000 to help Canadians buy 640,512 new and used vehicles; and some 180 Canadian factories and shops, located in eight mainland provinces, which manufacture the 12,000 to 20,000 parts that go into autos and trucks. They absorb $308 million of the $588 million spent in 1953 by auto manufacturers for materials.

Other primary and secondary industries in Canada find the auto makers their biggest customers. Producers of petroleum, steel, glass, nickel, lead, rubber and textiles benefit directly. Textile plants sell as much cotton cloth for car upholstery as they do for men’s shirts. About half the rubber industry’s output goes into automobile tires and tubes. In 1954 Canadians consumed nearly two and one-half billion gallons of gasoline—enough to send every Canadian man, woman and child on an individual 3,000-mile auto trip.

As an employer, the automotive industry grew from small machine shops with a few hard workers to plants with thousands working on mile-long assembly lines and in offices. It pays more than $130 million a year to the 33,000 Canadians in auto manufacturing plants. Another 16,000 working in parts manufacturing plants in 400 communities earn some $81 million a year.

It is difficult to say precisely how many Canadians have found full and part-time jobs as a result of the invention of the auto, but an estimate would be half a million—one in 12 of Canada’s labor force—depend directly on the auto industry for their livelihood. In addition to auto plant workers there are the wholesalers and retailers of cars and trucks, of tires, tubes and other equipment, of gasoline, oil and grease. There are those that paint and repair autos: bus drivers, truck drivers, taxi drivers and chauffeurs; motel and drive-in theatre employees; and those who park, store, wash and polish cars. On the fringe are those who build highways, bridges and streets, the men who keep them in condition and those who sell the material to build and repair highways. There are the highways officials and their staffs at the civic, provincial and national levels—some 5,500 in Ontario alone.

Putting trucks on the road and keeping them there is a major industry within the automotive industry. Early in 1954 there were 825,476 commercial trucks in Canada worth a billion and a half dollars. Some 50,000 Canadians listed themselves as truck drivers. Big highway trucks, rolling across the provinces like freight cars, were transporting one-fifth of the tonnage carried by railways. Fleets of smaller vehicles carried everything, from cattle to corn flakes.

More than half the products of Canadian farms go to market in trucks. They deliver 90 percent of the milk in Canada, 74 percent of the pork and 74 percent of the hogs. In Ontario they haul 95 percent of everything the farmer grows.

In western Canada, they’ve played a steady role in hauling equipment and supplies to hundreds of oil sites, and, before pipe line gathering systems were laid, in moving oil to railheads. On the oil exploration frontier, trucks and track vehicles have performed heroic feats in bushland, muskeg or on swampy roads. The big tank trucks, moving refined gasoline from storage tanks to gas stations and garages in all parts of Canada, are familiar sights.

The country at large has benefited by taxes drawn from the automotive and related industries down the years. In 1953 the
In 1953 federal taxes derived from motor vehicles and tires and tubes totalled more than $179 million. From license fees and gasoline taxes provincial governments garnered about $306 million.

Federal government collected in excise and sales taxes $162,765,130 on motor vehicles and more than $17 million on tires and tubes. Provincial governments garnered even more—$218,155,000 in gasoline taxes, $77,797,960 from motor vehicle license fees, $6,185,338 from drivers’ licenses and $3,758,771 from other fees and taxes. This was 23 percent of all provincial revenues. Municipalities extracted more money from the motorists in the form of parking meter charges and fines.

Such figures serve to show that car-driving is no longer “a spring proportion for adventurous people” as McLaughlin recalled early auto use, but a mainstay in our economy and a new way of life. A Canadian Chamber of Commerce survey reveals that 63 percent of passenger cars are owned by people making $3,000 a year or less, but who need a car for work, shopping and recreation. Sixty-two percent of car-owners drive to work every day, living an average two miles from their jobs, and 15 percent of non-car-owning breadwinners get a lift with them. Where once a majority walked to work, now only 23 percent can get there by shanks’ mare.

Canada’s farming population, using more than 400,000 tractors and 196,000 trucks, today find the automotive industry a necessity in earning their living. In western Canada 30 years ago, the prairie farmer had an average of 10 horses and one-sixth of a tractor. Today, he has three horses and one tractor and the switch from horses to horsepower has saved him working hours, provided him with land once used for fodder and cut costs. Equally important, farm mechanization has led to greater leisure for farm people and broken down rural isolation.

If perhaps the biggest contribution of the motor age is that it made it possible for millions of Canadians to move to the outlying areas of cities and towns, to enjoy fresh air, more space and more relaxed living, in the green farmland belts that ring urban areas, thousands of new subdivisions have sprung into life during the past 10 years as families, tired of downtown noise, smells and bustle, moved to the suburbs. In the post-war period, Vancouver’s suburbs showed a population gain of 82 percent while Toronto’s gained 86 percent and that of Saint John, N.B., 43 percent.

The new suburbs, however, were not without growing pains as problems of water supply, sewage, landscaping and roads had to be met. But it was the nearest approach to the urbanite’s dream of “a place in the country”—thousands who had never been closer to nature than a Sunday visit to the city park began to coax peonies and lettuces out of the ground, lay grass and prune fruit trees. Office workers, who once lived in apartments maintained by janitors, became “do-it-yourself” experts. Armed with hammer, saw and wrench they went to work on uncultivated lots ranging from the building of a rumpus room in the basement to fixing the furnace.

Housewives found similar outlets for pent-up creative energy and keener social contacts in the rising young communities, contrasted with the ironically lonely life of crowded cities. Children, who once found cement sidewalks their most frequent playground, now rollicked in play centres or in nearby open fields. Shopping often became a family affair, as all members piled into the car to drive to one of the new shopping centres, sometimes miles away but only a few minutes on wheels.

Supermarket men, riding along with the new trend, provided ample parking space around their big markets, and encouraged informal "Dressing up" to go shopping was replaced by casual clothes. An estimated 19 percent of all car rides are now made to get the groceries and other goods. Simultaneously came a closer integration of families with civic life as many parents took part in town councils, school boards and other community organizations.

For many suburbanites and city dwellers, the automobile brought new forms of recreation. Week-end or holiday trips to summer and winter resorts, to privately-owned cottages or jaunts into "the great outdoors," were launched by filling up the gas tank. A whole new industry catering specifically to the motorist sprang up to serve him: motels, curb service restaurants, drive-in theatres with playpounds, trailer camps, camp sites and other services unknown in the horse-and-buggy age.

New vistas are constantly appearing on the Canadian scene as a growing percentage of Canadians become mobile. A survey conducted by the Du Pont Co. of Canada estimates that Canadians will be driving 3,809,000 cars in four years’ time, if business proceeds at a normal pace. And by 1965 when Canada's population will hover around the 20 million mark, there should be twice as many cars on the road as now.

Out of this should come new highways, smoother traffic control and better facilities for commuters and holiday-bound motorists. With automobile ownership averaging one car for every four persons by 1965—a fraction more than one per family—an even more profound revolution can be expected in the Canadian way of life.

It is estimated that twice as many cars will be on the road by 1965.
In May, 1916, a young Winnipegger started work at a drafting board at Imperial’s Sarnia refinery. When he retired last December, G. L. Stewart had served 11 years on the board of directors, including four as president and nearly five as board chairman.

THE STORY OF
GEORGE STEWART
by HAL TENNANT

Some movie-makers have pictured the “successful” executive as a man who keeps his stomach coated with silers, his subordinates numb with fear and his wife on the verge of distraction. He starts out on the wrong side of the tracks, fights his way through the school of hard knocks, and uses his friends like rungs on a ladder. Enrobed in the executive suite, he thinks like an electronic calculating machine and behaves like a wounded rattler.

By now he is such an absurd stereotype that most businessmen find him amusing. But if any of them ever felt obliged to cite successful men who failed to fit this pattern, one likely choice would be a soft-spoken, former college instructor named George Lawrence Stewart.

By last December 30, when he stepped into retirement after 39 years with Imperial Oil, a few simple statistics from his company record were enough to dispel any doubts about his success: he served 11 of those 39 years on the board of directors, including four as president and nearly five as board chairman. And yet his calm disposition and his respect and consideration for others would have left some Hollywood script writers shaking their heads in disbelief.

Subordinates who worked with him daily for a decade or more can’t recall him ever causing even a minor flurry around the office. “He has a knack of being forceful in a quiet and dignified way,” one of them explained recently. “I don’t think anybody was ever afraid of him, but on the other hand I don’t know anyone who ever sat down to talk to him and put their feet up on his desk.”

“Buzz” Stewart, as most people knew him in his younger days, was born 65 years ago in Winnipeg. Both his parents were descended from families of shrewd and hardy Scots who helped settle the west. His mother died while he was still a small boy, and he and his brother and three sisters were later brought up by their stepmother. His father, Arthur, earned a fairly handsomely living as a regional manager of the National Trust Co. Ltd. and owned a moderately large city home and a farm as well. Buzz was only 14 when his father bought one of the first Cadillacs ever made, a one-cylinder, 1904 model that cost about $900. From then on he was a keen motoring enthusiast and an incalculable but adept tinkerer with car engines and machinery. One of his most cherished boyhood memories is of a trip he and his father made to Oshawa in 1908 to pick up a gleaming new McLaughlin from the factory. The return trip via Buffalo and Chicago—the only car-worthy route in those days—took about 2½ weeks, and Buzz, not yet 18, drove all the way.

His friends recall an adventure that occurred while he was attending the University of Manitoba to earn the prerequisites for the engineering course he planned to take at Montreal’s McGill University. Buzz, who had become a popular and locally-renowned member of the Manitoba U. hockey team, was among those who arranged to stay the night in a hotel at nearby Selkirk after a game with the local team.

“I guess we got a bit boisterous around the hotel,” one of Stewart’s teammates recalled recently. “We weren’t doing any real harm, but we were making quite a bit of noise, and the manager threw us all out.”

The policeman on the beat, realizing the boys were unlikely to cause any real trouble as long as they had a place to stay the night, invited them to the police station where he let the whole team sleep on improvised beds on the office floor. Stewart still likes to laugh over this episode as the only time he ever spent a night “in jail.”

Far more typical of his college days are this same classmate’s memories of the times they had together when they were attending McGill and living in a rooming house on Montreal’s Durocher street. “There’d be a whole bunch of us in the room, all talking and making a noise, but Buzz could sit down in one corner with a book and remember every word he read.”

Although Buzz, as a student, never leaped from crisis to crisis
Sarnia refinery employees gave him a watch when he left in 1934

in the approved storybook fashion, his college days were not without significant episodes, including one tragedy. The tragedy was the sudden death of his father, about a year before Mac graduated. One experience changed the course of his ambitions. He took a summer job driving a little electrically-powered rail car hauling loads of rock and mud out of the tunnel that was to link Montreal proper with suburban Mount Royal. Even though the job paid as much as $90 a month—a good figure in those days, which he earned by working seven days a week—the muck and mud were enough to change his mind about becoming a mining engineer. So he took his bachelors of science degree in mechanical engineering instead.

Eager to absorb all the engineering he could, he jumped at a chance to work as a demonstrator at McGill so he could go on learning while he earned, but he earned so little—$600 a year to start—that after two years he decided to try for a better-paying job. He had heard that Imperial Oil was looking for a young engineer to begin in Sarnia as a draftsman, and in May, 1918, he got the job.

But teaching had intrigued him and, that summer, when the engineering faculty invited him to return as an instructor at three times his salary as a demonstrator, he couldn’t resist. With less than four months to go before his final exam he had to get a leave of absence and went back to McGill. Even in those days, however, $1,200 a year was not a princely income for a man who intended to get married and take care of his education. By the following April he was back at his drafting board in Sarnia. A month later he married Therese Wakesfield whom he had met during his days as a McGill student.

In handling one of his earliest assignments—the design of a horse barn for the refinery—he demonstrated some of the precision thoroughness for which his work would become well-known. The specifications called for a barnyard of cobblestones, and most draftsmen would have drawn in a few stones and indicated the rest with a notation on the plans. Stewart drew them all—and to scale.

He was anxious to learn all he could about oil refining, but that wasn’t easy. The industry had only reached the fraction of its development that it has today, and every refiner, fearful of losing some standing as a knowing craftsman, was as secretive about his methods as a witch doctor. Even when they were expected to design a new piece of refining equipment, Stewart and the half dozen others in the engineering group had a tough time finding out what was going on in the refinery.

“They operated on a sort of ‘by-guess-and-by-god’ system,” he remembers. “There was no such thing as fractionation (the modern method by which the components of crude oil are separated, each fraction then can be refined separately) as far as we were concerned. We had to keep running and re-running the crude until they got what they wanted out of it.”

Despite the refiners’ obsession for secrecy, Stewart picked up a lot of knowledge, and also a pretty good theory on the return to Sarnia from McGill. Stewart was sent to Dartmouth, near Halifax, to take charge of construction of Imperial refinery. It was his first big chance to show his capacity for hard work, and he gave it all he had. “Quitting time meant nothing to him if there was work to be done,” a former associate said recently.

A few months after Imperial went on stream, he was transferred from Dartmouth to an engineering job in Toronto, where he got his first insight into executive office problems and procedure. During his three years there, his superiors saw him as a most methodical and capable man who never muffed an assignment. From then on, it was a steady climb up the management scale, although even Stewart himself did not think of it that way at the time.

“Never thought very much about how far I might go in the company. I was more concerned about doing the very best I could with whatever job I had.”

After a year as assistant superintendent at the new Regina refinery, he returned to Sarnia as second-in-command, then took over as superintendent when his predecessor was promoted in 1931.

To this day, Stewart has never pushed himself into the limelight. But as top man at the refinery, he automatically became an important figure in the community, and he always made sure he lived up to his obligations. It was during those 10 years in Sarnia that he first became widely known as a “solid citizen”—the type of man people turn to when there is a job to be done.

As a director and, for a time, president of Sarnia Golf Club, he helped pull it through its leanest years of the depression; as an enthusiastic booster of amateur sport, he gave the local football team his personal support, which, coming from a man in his position, counted for a lot; and in a school trustee he showed what has continued to be an abiding interest in education. In later years, he threw the weight of his influence behind the company’s scholarship and fellowship plans, carried on a lively exchange of information with other companies interested in such programs, and made several widelyquoted speeches on the problems of Canadian education.

He was rather disappointed, at first, when the company moved him back to Toronto in 1943, even though it meant he was to become general manager in charge of all seven Imperial refineries (two others, at Edmonton and Winnipeg, were built later). He not only missed his friends in Sarnia, but he felt there was a lot more he could learn around a refinery.

However, as Stewart himself has observed, in probably his greatest understatement, “It worked out pretty well.” At Toronto he got a clearer picture of Imperial’s expanding operations. Later he was to look back on the problems of the mid-1930s, which seemed tough at the time, and consider them simple compared to those of the war years. For with the war it became vital for Imperial not merely to keep operating despite shortages and restrictions, but to expand rapidly at all costs. On top of that, the company took on the unfamiliar job of helping to establish Polymer Corp, in Sarnia as Canada’s first producer of synthetic rubber, which is made from petroleum; and Stewart took on heavy responsibilities for this job. He still considers those war years as the toughest of his whole career.

The war was still going strong when, to no one’s surprise, Stewart was named chairman of the board and named a vice-president. Three years later, in 1947, just a few weeks after Imperial’s historic discovery of the Leduc, Alta. oil field, he became chairman of the board. Even without Ledue and the discoveries that followed it, he and the other directors—all full-time employees of the company—would have had plenty to do, for Canadians were demanding ever-increasing quantities of petroleum products which had to be manufactured either from domestic or imported crude oil.

In the hectic years that followed, Imperial’s annual capital expenditures mushroomed from a pre-Leduc $20 million to 1954’s record $74.2 million. The company built the Edmonton and Winnipeg refineries and expanded and modernized others, increasing its total crude refining capacity from 138,100 barrels to 295,450 barrels (6,730,700 gallons). As important and spectacular as they were, the western oil discoveries were only one of many factors that made Imperial’s operation more complex every day; and there are those who feel sure the company would not have won quite the same enviable position it holds in the industry today, had there not been a G. L. Stewart applying his analytical reasoning to the top-level problems that cropped up from time to time.

His subsequent moves—into the presidency for a four-year period beginning in 1949, then again to the board chairmanship until he reached the company’s retirement age last December—did not alter his position as a sort of psychological “anchor” on the board of directors.

His closest friends, though aware that retirement may give him a fish-out-of-water feeling at first, are confident that between his business associations, his club activities, his golf and, of course, his family (including his only daughter’s four children), he will do what he has always done: keep busy.

And today, when anyone asks which job he has liked best, since he first sat down to a drafting board in Sarnia back in 1916, Stewart has a ready answer: “Whatever job I happened to have at the moment.”

Intentionally or not, he thereby reveals an important difference between his own attitude and that of the fictional Hollywood career man whose eyes are constantly fixed on the next step. Stewart also puts the same idea in stronger terms: “All this tycoon business,” he says, “is a lot of hooey.”

And he has a lifetime of experience to back this contention.

Last Dec. 20, the board met for the last time under Stewart’s chairmanship. He served 11 of his 39 years with Imperial on the board.
The busiest, most independent and one of the biggest personal enterprises created by the automobile is that owned by the man behind the gasoline pumps: the service station. Many of Canada's 3,200 service stations are doing more business in dollar value than local factories; some have as many customers as the local supermarket; some are equipped with more than $150,000 in plant and machinery, and all are tied in with the community as closely as the bank, dairy and water works.

The dealers, most of whom own their own businesses, have lore since been divorced from their commercial ancestors, who were often primarily concerned with running a drug store, hardware store, smithy or garage, and only academically interested in selling automotive oil products.

Today, they are businessmen, salesmen, public relations men, personnel managers, public speakers, and gasoline, oil and automotive experts—all rolled into one. Dealers are mayors, councillors, reeves, reserve army officers, footballers, owners of radio stations, and beauty queen judges, spending as many sleepless nights as any other merchant in the community.

With more than three and one-half million motor vehicles on the road in 1954, selling gasoline is big business. Nearly two and one-half billion gallons were sold that year. This meant more than $200 million in provincial gasoline taxes alone (these vary from nine to 17 cents a gallon depending on the province).

A well-placed service station will pump some 250,000 gallons of gasoline a year. Some dealers sell as much as a million gallons. With such high sales potential, competition is razor keen. A modern service station has to be—and is—a smooth running highly-efficient operation—otherwise the customer drives to the opposition outlet across the street.

Service stations weren't always big-scale, efficient operations. In the beginning there just weren't enough cars to make any difference. But as the auto has grown so has the service station.

Just after the turn of the century, there were about 200 automobiles in Canada. They were chicken-scaring contraptions; dangerous and expensive luxuries. Gasoline could be bought at hardware and grocery stores, from blacksmiths and drug-gists. It was often kept in a box in the yard and measured out in tin jugs.

And the situation didn't change until the early summer of 1908, when the manager of a local sawmill (telephoned Imperial's Vancouver sales office for gasoline for his car. C. M. Rolston, the manager, apprehensively sent him the only gasoline he had—that used to fire a certain type of stove. Apparently it was successful for a repeat order followed.

As other motorists began asking for gasoline, Rolston and young James Matthews, his salesman, began selling gasoline by the bucketful in the warehouse yard. "That afternoon," recalls Matthews (now Major J. S. Matthews, Vancouver city archivist) "the first customer appeared at the Imperial warehouse on Suthe street and his car was fueled by means of a bucket and big funnel. Next day two or three cars came, then more until finally they filled the warehouse yard, getting in the way of the company's trucks. An exasperated yard foreman locked the yard gates and posted a sign: "Automobiles not allowed inside." Undaunted, Rolston and Matthews carried the battle to the curb and set up a bucket brigade.

The next couple of weeks were busy and confused as nearly all the cars in Vancouver flocked to the curb gasoline market. It became obvious something would have to be done.
Robson and Matthews built an open-front corrugated iron shed about five feet wide, eight feet high, facing the street. At one end was a concrete pillar with a kitchen water tank mounted on it. The tank was fitted with a gusset marked off in gallons, and connected to the main gasoline storage tank. A length of black hose, which ran from the water tank, was used to fill the cars. A chair with a soft cushion for the attendant J. C. Robson, an uncle of the Vancouver manager, and a "No Smoking" notice completed the equipment.

So was born Canada’s first service station. Within two or three years, this child of necessity had begun to spread across the country and another institution had been added to the Canadian scene. First came the primitive curb pumps — outside of country hardware and general stores, and in the yard of the service station.

Most of the early service stations were located exclusively to the auto blossomed forth.

Edgar Andrews, who still operates a station there, opened Quebec City’s first service station in 1910. At Hanover, Ont., Stanley Munroe operates a station which opened in 1912. And at Peterboro, B.C., W. X. Perkins is still running the Grand Forks Garage, which he started in 1913. One of the first stations in Toronto was the Imperial station at Church and King streets, on the site of the company’s present executive offices. The company was well prepared for automotive transport was here to stay and by 1918 there were more than a quarter of a million automobiles in Canada. In the large cities—Vancouver, Toronto, Montreal, Winnipeg—the first specially designed brick service stations with sweeping driveways were built; in smaller centres, proper gasoline pumps appeared at the curb. Thus many drakers changed to their real haben and stored their gasoline in cans away from the station.

The gas tank was usually under the car’s front seat, and the passengers piled out to fill up — a precaution as fires were not unknown. A motorist measured the success of his journey in punctures, and often kept a log of his trips. Harry Dunlop, of Imperial’s retail sales department, who has been in the gasoline business for 30 years, recently looked up the log of a trip he made from Hamilton to Toronto. He had the remarkable low score of one blowout and four punctures. "The tires were thin, and the roads bad. They weren’t made any better by nails and flints. One rogue between Hamilton and Toronto used to pepper the highway with nails and broken glass." Harry Greening, a southwestern Ontario businessman, was so disgusted with this type of abuse that he attached a strong magnet to his car’s front bumper. It picked up the nails all right, but it also got him into a lot of other trouble. He once drove too close to a horse, and the horse’s right back shoe became stuck to the bumper. Another time, the magnet pulled a load of empty tins from the back of a cart.

In spite of the increase in the number of autos, the majority of service stations were still pretty crude structures. They sold practically no oil. In fact, it wasn’t thought they ever would. Oil changing, however, eventually arrived; but not as the speedy service we know today. It was a noisy job, involving a dirty crawl under the car with a flat bath. A grease job took half a day of shoveling and shuffling with a hand grease gun on crusty old supplies. Tires were of high pressure, taking 60 to 70 pounds of air. Sometimes they burst and the part-worn wheels of the day blew to pieces. Water was there to fill the radiator, but the customer had the privilege of doing the job himself.

But in some parts of the country competition for the motorist’s dollar was already making itself felt. Windshield washing was instituted in Canada at Hamilton, and its arrival made an unexpected splash in the papers. The service station had ordered a stackful of cleaning rags from a local dealer. One of the first customers was a dignified and important jeweler who took one look at the attendant’s polishing rag and nearly fainted. She later complained to the press on the obviously imminent sight of the state of the country when an attendant would clean her windshield with a pair of tattered pink bloomers.

That was not the first time that a woman had broken into the news because of a service station. During World War I women and service stations hit the news pages when young society debutantes and housewives, whose husbands were overseas, set up service stations at the front. Many of the women ran the stations to help make money to buy war bonds. But things went a step further when the war was over. Women returned to their homes, but came out again in World War II. This time some of them stayed in the business. One Vancouver service station, operated by Joan Crowther, is staffed entirely by women.

The late Twenties brought another change in station design. Car registrations were now pushed the million mark, and the pump-and-grocery store combination began to disappear. They surrendered to ornate buildings which often looked like a cross between the Chateau Laurier and something from the Arabian Nights. In the drive for customers, the courtesy of service station attendants became a byword. University presidents and educational leaders, in articles and speeches, said that service station attendants had done as much to increase the level of courtesy in the country as any other single group. One Hamilton man said he drove into his local service station every morning before going to work just to begin the day in the right frame of mind. Cartoons depicted the motorist sitting at regal ease in his car, while eager attendants not only supplied him with gasoline and oils, but gave him a shave, haircut and shave shirt.

This was also the era of the first motor oils especially designed for automobiles. Marvelube was introduced by Imperial in 1926. It was advertised as being so light you could read a newspaper through it. But motorists had become accustomed to motor oil being a dark shade of green or a transparent blue, and many drivers considered Marvelube to be too thin. Some even said it was like putting water in the crankcase. It took saltmanishment to put over Canada’s first motor oil.

But the late Twenties and early Thirties were known for the number of fine saloons in the booming service station business. Jimmy Pope, who, as assistant to the retail sales manager, recalls, “We hired all kinds but they all sold. One of our best salesmen was a big bluff Irishman, Charlie McCarthy. He operated a station at Fleur and Bathurst in Toronto. Charlie never said much. But when he did speak you could hear him on the other side of town. When you drove into the station he’d come out and stand at you for a second, then clap his hands like a Suffolk. From nowhere, six men would appear, running like rabbits, to clean the windshield and clip the oil.

"Charlie was also famous as the man who had a Count on his staff. He was Count François de Lassay, grandson of the Star Castle builder, and son of the early French aviator. When he arrived to take up his job, Charlie never said a word. He handed the Count some overalls, a rail, and a mop, and poked his thumb at the washroom," says Pope.

The Count worked at a number of Imperial stations. His wife drove up every day in a huge convertible with her lunch. In the evenings, the Count dined and danced with the customers he’d served during the day. He was an excellent mechanic and he made his own automobile while working with Imperial.

“Many of today’s leading station operators came to us when they were in knee pants,” says Pope, “and we developed them as businessmen. The average wage was $15 a week for a single and $16 for a married man. A station manager got about $90 a month. You worked seven days a week, with one Sunday off in four.”

Another dramatic change came in the 1940s. Many of the palace-like stations were eliminated and stations designed by company architects were built. They were functional in design, but at the same time fitted in with the local scene as far as possible. People began to connect the shape and colors of service stations with brands of gasoline. Proper lubrication and tire equipment was just being emphasized. "Good service" was advertised. Lighting effects came into being, and clean, comfortable washrooms became features of well-run stations. Change, in 1947, Imperial announced a plan that realized the dreams of almost every station manager: the company decided to lease nearly all its stations, and set up each manager in a business of his own.

Service station operators with Imperial now own two classes: those who own their stations and those who lease or
rest from the company. Both are completely independent businessmen. Their only connection with the company, besides selling its products, is the advice and help it can give them. Many oil companies work in this way, with variations on the same theme. This change in ownership of the service station business was the beginning of the modern station. It had now become an integral part of each community. Under the impetus of personal private enterprise and independence, new stations sprang up all over the country. They were as welcome a sight on the highways to the increasing motoring public as the inn of old were to the stage travelers.

However, the old-type gasoline station hasn't disappeared altogether. There are still a few in country districts. In Ontario, they passed from view in 1951, when a law was passed forbidding pumps at the curb. One of the province's last curb stations was owned by 79-year-old Mrs. M. Gill on Highway No. 1, west of the Dixie road near Toronto. It stood outside a post office. When an Imperial representative went to see Mrs. Gill in 1959, he found in a shed at the back, seven barrels of the original Marvel oil delivered in 1926! Mrs. Gill died in 1946, and the pump has since disappeared.

Most of today's stations are long, gleaming white buildings, clean and polished, with sweeping asphalt forecourts. The reason, of course, is competition. A dealer without service or a dirty station soon loses business to his rival who is often just across the road or on the opposite corner. And also, for that reason, the dealer is a shrewd businessman, who gets to know every customer; knows almost as much about what he sells as the men who make it, and is an expert in personal relations. He must be ready to help and encourage his men, many of whom want a station of their own one day. Though not necessarily in a large city, and must be able to live up to the knowledge. He keeps his own accounts, and orders his stock. But above all, he must be interested in his community. He realizes he is not just a gas station owner, but a master mechanic and the doctor. He needs more than energy to fill the bill. He must have an easy smile and loads of tact. He must know when to talk and when to keep quiet. Ken Mathewson, who operates the Imperial station at St. Clair and Westmount in Toronto, has been in the business over 20 years. He says, "Some customers like to talk, others won't say a word.'

Service station operators are among the most active community men in Canada today. Colonel H. N. Gaworski operates a station at Balmoral and Yonge streets in Toronto. He has been a dealer in the same spot for 28 years, is past-president of the Ontario Retail Gasoline Dealers' Assoc. and past-president of the Yonge-St. Clair Business Assoc. J. J. Ladd of Kelowna, B.C., is the mayor. "Chubby" Ferriman at Coxwell and O'Connor in Toronto, runs a station, baseball team, sponsors police and fire department sports, and spends what's left of his spare time with his nine children.

Mario De Marco, Jr., is storekeeper of one of the biggest stations in Regina, and his business partner, Mel Beckett, are members of the Saskatchewan Roughriders football team. Jim Link who operates the Esso station in Kenora, Ont., is 82 years old, and has never closed the station, day or night, for 34 years. Warren Flett, of Newcastle, N.B., is president of radio station CKMR. He owns a construction company, and is active in local politics. Weldon Mills of Truro, N.S., is an inventor. He invented a machine, now manufactured and widely used in eastern Canada, for changing tires. With it he can take a tire off in a wheel in six seconds. Sid Smith of Kamloops, B.C., is a former member of the Legislative Assembly and is president of the B.C. Liberals party.

Right across the country today, are dealers who not only perform an essential service to the public, but are widely known themselves for their activities in the community. Being a public-minded citizen creates a good impression in any business, but it is not the only factor which makes a customer like certain a service station. A recent survey showed that good service is one of the main reasons why customers come back.

To make sure that its stations are giving first-rate service and are designed for the customers' best convenience, Imperial is building an experimental station with this station it hopes to be able to find the answers to service station problems that come up in day-to-day operation, and develop new and improved station features. Questions to be answered will be—how bright should it be lit? What is the easiest way for a customer to come in? Should he be able to get his change at the pumps? Should oil be sold through a pump? What's the best way to check battery and tires?

The result will be no fantastic dream station, but a practical operation.

Station design experts have dreams of future stations—one of them is a combined highway-skyway station which will serve private air passengers as well as the motorist. In any case, whatever is wanted, there's one thing certain. Canada's service stations and dealers are going on to continue to live up to their name. They have to, they have to go on doing business as they always do. 

Yesterday's autos are today's treasures for Old-car lovers. Car dealers, housewives and millionaires spend more time, money and loving care on antiques than on their latest streamlined models.

nostalgia on four
wheels

by EARLE BEATTIE

LAST August 30, a holiday-happy crowd of some 20,000 people, in the grandstand of the Canadian National Exhibition's stadium, broke into wild applause as an old parade of veterans moved in cheerful dignity along the race track.

The "old tours" were 244 antique automobiles from the rearing Twenties and the ballyco days before World War I ranging in age from the Merry Oldsmobile of 1903 to a 1929 Rolls-Royce. Among them were grandly fatherly Fords, Buicks, Packards, Dodges, Studebakers, Chryslers and Cadillacs, and such half-forgotten auto ancestors as Stevens-Duryea, Pierce-Arrow, Locomobile, Maxwell, Moon, Hupp and Reo.

Another 150,000 people cheered the nostalgia-laden cavalcade as it toured through the exhibition grounds that day. Drivers in caps, goggles and long dust coats—necessary dress of the early driving days—and ladies in big feathered hats held down by undercrinches, helped give the parade an air of old memories on wheels.

Thousands more had seen or were soon to see the old cars on their 400-mile journey from Niagara Falls, N.Y. to Montreal. For America's famous "Gilded Tour" (launched after New Englander Charles Odell, who thrice circled the globe in early auto days) had come to Canada, sponsored by the Antique Automobile Club of America.

The curious spectators saw 75 makes of cars on the tour—gay ghosts of yesteryear when some 2,700 firms made horseless buggies. There were 50,000 luxury limousines and restored 500 jaulers; cars driven by gasoline, electricity and steam; cars with tilters and buggy springs; open touring cars and glazed-in cars like Victorian drawing rooms on wheels; cars that cranked in the rear, at the front end and at the side; cars that gleamed like brassy military bands; sedans, touring cars, runabouts, racers, phaetons.

While they differed widely, they all had one thing in common—proud owners who had lavished paternal care on restoring
tender care, swap them back and forth and occasionally trade them in for other models. Robert Hunter of Calgary once owned a 1904 two-cylinder air-cooled Tudhope-McIntyre with chain drive, solid rubber tires and tiller-bar steering. He took it to Stan Reynolds, a Wataskiwin, Alta. auto dealer and traded it for a more "modern" car—a 1917 Briscoe Roadster, once made by the Canada Carriage Co. in Toronto. Then he looked around a little more and finally settled on a 1930 Cadillac V8 roadster. The Briscoe and Tudhope, rare Canadian items, were donated by Reynolds to the Western Canadian Pioneer Museum, whose first building has just been completed at Wataskiwin.

Housing Alberta’s first collection of its kind, the museum has collected enough relics to fill several buildings. Among these are 40 old cars, 70 tractors, five old fire engines and other exhibits. From Ken Cohoe of Cochrane, Reynolds got a 1907 Maxwell and from Mrs. R. E. Laycock of Calgary, a 1912 Locomobile which he believes was Alberta’s first car with electric headlights.

Saskatchewan’s Western Development Museum with branches at Saskatoon, North Battleford and Yorkton, also has an impressive display of vehicles. Among its 40 veteran gasoline, steam and electric cars are an International Harvestor auto with a wooden axle, three giant tractor-steampumpers, a 1908 Russell built by the CCM works in Toronto, and a 1916 Peerless built for Lady Lougheed of Calgary at a price of $5,000.

In good running order is the museum’s 1898 Stanley Steamer, one of the first ever made and hailed then as "the finest thing on wheels." Others include a Rex, Maxwell, and Gray-Dort.

But the biggest round-up of old gas buggies in Canada is the private 60-car collection of Montreal’s Joseph Gent, most of which are in Casa Loma’s stables. A robust, energetic man, Gent is president of the construction firm of G. M. Gent Ltd. His interest in cars started in boyhood days in the U.S. with a shining big 1906 Pierce-Arrow which the family owned. He drove his first car in 1910 and soon got caught up in the racing fever of the day.

Montréal’s J. H. Gent has largest Canadian round-up of old cars

He climaxied a motorcycle-racing career in July, 1915, by winning a 10-mile encounter over a rough course. He still wears, as a watch fob, the medal he won that day. After that he climbed into the cockpit of an early fighting biplane and became a World War I navy pilot and saw active service again in World War II.

His interest in preserving famous old cars dates back many years. His oldest car is an 1896 Delahaye, a high-wheel coach with canvas top, bugle springs projecting in front and bicycle-like handle bars to steer with. Another of his rare finds is a 1902 Orient Buckboard, a small two-seater that resembles an old-time saloon with a fringed canvas top. It stirs, like a boat, with a tiller.

Some 50,000 people who visited the free showing of pampering 1915 and 1916 cars at the old Sault Ste. Marie building last summer were upstairs and paid a quarter to see the modern autos’ forebears—Mr. Gent’s display of 45 antiques. The cars that brought the sight from older visitors and shrieks of laughter from the bubble-gum set included a 1902 Oldsmobile, a front-drive Ruston sedan, 1912 De Dion tourer, 1912 Franklin roadster owned by lawyer Atkins, and Albuilles Wright, and a one-seater, chain-driven Kelsey Motorette with three wheels and its radiator just back of the driver’s seat for warmth.

Gent’s finest contribution to Canada’s old-car lore, however, is his unique collection of antique autos once manufactured or assembled in Canada. It comes as a revelation to many viewing them that small car-making industries flourished by the score in Ontario towns and cities only two generations ago. They can see a 1907 Tudhope, a two-cylinder buggy-car which once made in Orléans; a 1912 gas-electric runabout made in Galt, modelled after the Everett car in the U.S.; a small two-seater Berlin from Kitchener, the city that once went by that name; and a Brooks steamer made in Stratford.

Mr. Gent also owns a Walkerville Ford from the factory of Gordon McGregor of Walkerville, Ont., who, in 1906, got Canadian rights to make and sell Henry Ford’s new car. McGregor got the engine from Detroit to install under the driver’s seat and made the wheels and the body. The most successful name in Canadian automobiles—McLaughlin—is represented by several McLaughlin and McLaughlin-Buicks in Gent’s collection. R. S. "Sam" McLaughlin turned out his first 193 cars in his father’s carriage factory in 1907, using Buick motors, and added a fourth on the side.

In those years many carriage companies, unaware of the big investments required to make cars that would compete with the coming assembly-line production, began building cars or car bodies with hand craftsmanship. In Ontario, a Barrie firm produced one called the Bell; the Gibson stove company in Guelph built the Gibson, and another from London, the Cloverleaf, and another from Guelph, the Joe’s. In the early Twenties, the Gray Brothers of Chatham produced the Gray-Dort in conjunction with a U.S. auto-maker.

The Kennedy car company in Preston, Ont. built 50 cars in 1909 and finished in 1910. Still running today in buggy days, they were high-wheelers with solid rubber tires, the motor under the bonnet. Many were shipped to the west with the idea that their high centers of gravity were negotiable goiter holes.

Clintwood, Ont. made the Clinton truck, and even little Perte-tanguethéene produced a car, the Debrismobile, named after its local designer. Other makes came from London, Brantford, Windsor. Toronto’s CCM Co. built Russell cars and shipped them to all parts of Canada. It seems just as well that Orelia, home of the elegant old Tudhope car, should have one of Canada’s outstanding collec-

them to their original grace after searching old barns, auctions, and dealers’ lots to find them.

Seven of the owners were Canadians. Joseph H. Gent of Ville La Salle, Montreal, had four cars on the tour, more than any other owner. Stepping in for his route; a 1907 Baker Electric, operated entirely on batteries; 1909 McLaughlin; 1917 Pierce-Arrow and 1927 Chevrolet stabling wagon. Nelson M. Davis of Todmorden, near Toronto, a rare luxury model, a 1904 Rolls-Royce, made in Lorraine. D. A. Marshall of Toronto drove a 1928 Rolls-Royce, and Ronald Fawcett of Oshawa was at the wheel of a 1909 Ford, second year for the famous Model T. Two Coambil, Ont. men went the whole route; A. H. Batters in a 1909 Ford and J. N. Kennedy in a McLaughlin-Buick of 1910.

The old vintage cars were nursed along by a mobile machine shop and two Esso trucks. Because of the weak headlights on their cars, the drivers started each morning at 6:30 before a service station was open and stopped before dark. The hour before take-off was spent around the garage checking all their motoring needs. The Stanley Steamer, for example, had to depend exclusively on the mobile service station for its water or oil-injected gasoline. A large supply of distilled water was also kept on hand for many of the owners insisted on coddling their radiators. On the highways, emergency service was supplied. Jerry Duryea, chairman of the Glidden Tour, and son of Frank Duryea who made America’s first marketable gasoline-auto, ran out of gas in his 1924 Cadillac, near Belleville, and was saved by the timely arrival of the Esso truck. An antique Ford lost a wheel, but got back on the road when a new one was rushed from Toronto’s castle-museum, Casa Loma, where Gent keeps many of his old cars on display.

Gent’s Baker Electric was the only battery-powered car in the parade. One of the famous electric cars that outnumbered gasoline cars two to one at the turn of the century, it was equipped with a new set of batteries every 60 miles to avoid recharging en route. It reached Montreal without mishap.

Breakdowns of course are considered part of the game to antique auto fans who live in a fascinating world with a long, long trail of flat tires—winding back to the gas ‘90s. In the U.S. they number tens of thousands, organized into three national old car groups: The Antique Automobile, Horseless Carriage, and Veteran Motor Car Clubs. In Canada, a few hundred people from Newfoundland to Vancouver Island have preserved more than one old car, while thousands of others have saved a car of 25 years ago, or older. Many of them belong to regional clubs such as Ontario’s Dusters and Gogger Club and the southern Ontario branch of the Horseless Carriage Club.

They save old cars like others save stamps; mend them with
One of the most breath-taking collections of antique autos in Canada is that of Nelson M. Davis, president of N. M. Davis Corp. In a big garage on his north Toronto estate, Davis has a one-man show of internationally-famous luxury cars, the flower of the automotive world.

Oldest is his 1899 De Dion Bouton from France—inventor Count de Dion's own car, and one of five in existence. A small three-wheel steamer, it burns charcoal and coke in a rear-end fuel box to produce steam for the boiler. Driver and passenger sit back-to-back.

His huge, red 1906 Mercedes has a French body and German chassis, expensive brass fittings, but no windscreen. A Rothschild once paid $10,000 for it. His 1909 six-cylinder Pierce-Arrow with its high squarish windscreen, soft leather seats and shiny brass lamps, was one of the finest cars of its day. Mr. Davis drove it recently at 50 miles an hour.

An atmosphere of open-topped power and clear roads broods above his two famous Hispano Suiza cars from France —a 1926 phaeton from which several U.S. limousines were modeled, and a 1937 model, last to be made. The 30-year-old phaeton is a two-tone green, has luxurious leather upholstery, a divided back seat and four-wheel brakes. In the same category is his prized 1930 Isotta Fraschini which cost the original owner $30,000.

Davis' small, wooden-spoked Rolls, made by C. S. Rolls & Co. in 1905 before Royce added his name to the firm, is a highly-treasured item, one of three in existence. Its graceful bonnet was bashed in during last fall's Glidden Tour when it was bowled over on the Welland Bridge. It will take about $8,000 to restore, Davis says. He wishes the reckless driver who cut it in had done so in front of the 1928 Mercedes-Benz he was driving—a red bullet-like racer used by the late Sir Malcolm Campbell at Le Mans.

In his 12-car collection are also a 1903 Winton, a 1909 Daimler with chauffeur-seat, worth $10,000; a 1916 Raulang Electric with 24 batteries; and a 1911 Renault.

About three miles northeast of the Davis estate, another glittering garage-full of old luxury cars is located on the sweeping acres of John Angus McDougall, youthful Toronto industrialist and financier. McDougall's specialty is the jaunty, expensive sports car of motordom's heady adolescence. They came from England, France, Italy and America.

Among them is a 1921 Kissell Gold Bug with rumble seat on the side, a 1924 Vauxhall, really three-cars-in-one as it was assembled from three antique Vauxhalls found in England; a big 1925 Isotta Fraschini toureur with inlaid mahogany body, once owned by King Alphonso of Spain; a 1926 Bentley with a Vanden Plas body; and two racers, a black bullet-shaped Bugatti, 1928 winner of France's Grand Prix, and a gleaming white Mercedes-Benz, also 1928.

Three Rolls-Royces have also found their way into McDougall's collection. In the midst of this fast, sporty company a 1908 Ford sits lonely, and humble-looking, but serene in the New Marketing Division

A new sales group, the export and refiner sales division, has been formed in the marketing department. It includes the former refiner sales division which in recent years has sold an increasing proportion of the company's products, and a new section to handle special contracts and the export trade. Twenty-five percent of the production of the company's nine refineries is distributed by this division.

Heading the new division is Harry F. Stevenson who has been with Imperial since 1938. He started with the company in the construction and maintenance division of marketing and during the war worked on the construction of U.S. military installations at a series of airfields in northern Canada. He returned to Toronto in 1944 and since then has held various marketing positions including manager, construction and maintenance, and general operations manager.

J. Howard Mulloy is in charge of refiner sales, a job he has been carrying out for more than 20 years. During that time he has become one of the best-known figures in oil marketing in Canada and has seen the sale of products direct from refineries grow from a side line to one of the company's most important marketing functions.

Jack C. Neale has been appointed manager of contract and export sales. His experience with the company has been varied. Starting with the purchasing department in Toronto, he transferred to manufacturing and worked on all phases of refinery processing and in manufacturing head office in Toronto. In 1952 he became assistant secretary of the company and a year later was named management assistant of the transportation and supply department.

Howard Mulloy
Jack Neale
Even the Romans cursed women drivers, but they too were wrong. Women are safer, if not better, drivers than men. Don't ask the experts why — they don't know.
work now," she commented, returning the handkerchief.
"Thanks," I doubt it," responded the man. "But, you're very welcome..."

The woman smiled briefly, climbed in, started the car and drove away.

Not all women drivers, of course, can fix a stalled car with a hobby pin. Most men do, however, agree that women take better care of their cars than men, bringing them in more punctually for oil changes and lubrication, and showing immediate concern if something seems wrong with the motor. On the other hand, they add, women almost never have any comprehension of an automobile's parts and how they operate. The complexities of the clutch, for instance, seem to them as mystical as the theory of relativity. This does not always deter women from putting a brave face on their ignorance.

Joe O'Brien, a Imperial dealer at Kitchener, near Toronto, vividly remembers the lady who drove up and announced with a careless flip of her hand, "The differential is loose." He found the source of the trouble—a salt-splashed bottle rolling around under the driver's seat.

When the war ended, many authorities expected the proportion of women drivers to decrease. Women were no longer seen driving buses and streetcars; only occasionally were they hired to drive delivery trucks for drugstores or florists. Most cities in Canada returned to licensing only men for taxis; the women's army, navy and air force cut their rotors to the bone. Nevertheless the proportion of women drivers continued to increase steadily, to its estimated present high of 21 percent.

Owners of the hundreds of driving schools that have sprung up in Canada since the war believe they have the answer. The heaviest driving population is in the larger cities, all of which are flinging out suburbs as far as 30 miles from the city's centre. Many of these new communities have poor transportation facilities and the automobile has become a necessity. The man in the household needs the car at eight in the morning to drive to work and at five in the evening to return home; suburban housewives are discovering that they need a car all day.

For this reason hundreds of housewives take driving lessons. When they graduate they plan either to chauffeur their husbands to the end of the streetcar or bus line and keep the family car during the day, or to buy a small, English car for their own use.

"Women are easier to teach than men," comments George Howard of Scotland's Driving School in Toronto. "They listen better. It takes them a lot longer to learn than it does men because they are so nervous. Most of them have an awful problem about doing something wrong in traffic and hearing some man say, 'Woman driver?'

This complex, Mr. Howard believes, is the principal cause of women's gravest driving faults—over-caution. Many women creep along city streets at roughly the speed of a child walking backwards. They hesitate at stop streets, piling up a jam of incensed male drivers, until the thoroughfare they intend to cross is absolutely bare of any moving object. They rarely take advantage of a gap in the on-coming traffic when they want to turn left—they will wait until all traffic is past, and wait and wait and wait.

Regardless of her faults, and the fact that she feels he risks his life every time he steps into a car with a woman to give her a road test, one Montreal driving examiner says he would rather lend his car to an experienced woman driver than to a man. He says he has noticed the tendency of most male drivers to take unnecessary chances which a woman driver would avoid. "A woman car driver may crumple a cur fender, but it's the man who usually winds up in a serious wreck," he said.

Why is it that women are safer drivers than men? Is there something in the female make-up that is lacking in the male? Nobody is sure, and while social psychologists have toyed with explanations of women's apparent success behind the steering wheel, no one it appears has attempted a full dress research project into the matter.

But most of the experts agree there are feminine characteristics that make women could copy with success. Inspector William L. McIntyre of Winnipeg police, one of the city's Safe Driving judges, commented, "Women are more patient than men behind the wheel and less accident-prone."

Others believe that women have a greater consideration for the preservation of life than do men, and are therefore more aware that an automobile is a lethal weapon. Perhaps because they have a better opportunity to study the vagaries of a three-year-old's mind, women tend to travel through residential districts, where children are playing, at a pace that infuriates the delivery driver behind. The truck driver has no urge to run a child down, but he assumes the child will stay on the sidewalk —the woman driver assumes he won't.

A clinical psychologist at Toronto Psychiatric Hospital said the traditional role of boy and girl in our modern society might account for the difference: "Men are expected to be more aggressive and take the initiative and from childhood are led to believe this; while women are taught to be more passive." A TPH psychiatrist thought the maturity of the driver was a determining factor—not that women are necessarily more mature than men. But, "there are social pressures for men to drive, and they do so whether or not they are mature. While many immature women don't drive because there is not the social pressure on them to do so."

The biggest proportion of women drivers is found in the housewife-mother age group between 25 and 40, a span that represents 50 percent of all women drivers. This group, gaining in experience and judgment every time they buy a stalk of celery or take the children to the dentist, is beginning to win a measure of begrudging admiration from even men drivers. Every province has its share of vintage women drivers; tiny white-haired old ladies who generally sit on a cushion or two so they can see between the spokes of the steering wheel. Ontario, for example, has 680 women drivers over 65 years of age. Among those in their sixties is radio commentator Kate Atkin who drives her car with the zest and raskiness of a cab driver.

The 295 testers employed by the Motor Vehicles Branch of the Department of Highways in Ontario have orders to be especially gentle with women applicants. "We realize that women are apt to be more nervous than men," says the registrar, J. P. Bickell. "We try to keep them calm and at ease. Women really are good drivers, you know."

Inspector Robert Kerr of the Toronto Traffic Division is one of many authorities who suspects that women drivers' basic fluidity is due in part to her fear of her husband's temper. She is overly concerned about the fenders, for instance, which leads her to tendency to keep to the centre of the road where she is safe from all marauding parked cars. He also believes that a lot of the ladies' flattery serves may be caused by the husbands who, impatiently and indignantly, taught them to drive. "A husband should never teach his wife to drive," the inspector said. When Mrs. Kerr announced that she was ready to learn to drive, the inspector heeded his own advice. He sent her to a driving school, Mrs. Kerr, like others of her sex, now drives very, very well.
HURRY, here's the bus

by JEAN DANARD

IT'S FREEZING DAY but February, Charlie Hill was bowling along the highway between Grillo and Barrie. One, in his modern, streamlined diesel bus. The sun was shining, the snow was glistening, the highway was bare and he was on schedule. His passengers seemed the average group of carefree, relaxed travelers. All was well.

However, unknown to Hill, three police cruisers were following him, and in them a dozen constables were eyeing his bus intently. At the Barrie terminal they converged on the bus; surged aboard past a bewildered Hill and, with guns drawn, scrutinized each startled passenger. In the rear seat they grabbed their quarry—a pair of armed bank bandits.

"That's how it is driving a bus," says Charlie with a puckish grin. "You never can tell what's going to happen next." And he should know; for 16 of his 43 years he has been driving Gray Coach Lines buses in and out of Toronto.

Hill, a friendly, talkative man, who knows his job and his bus like the back of his hand, is fairly representative of the drivers who keep Canada's 5,000 interurban buses rolling along the nation's highways and roads. In an average month, Charlie and his confères drive nearly 10 million miles and their vehicles carry about 11 million passengers and use about three million gallons of motor fuel.

Their buses range from small 16-passenger vehicles to the huge, sleek aluminum cruisers that are, to all intents and purposes, traveling highway hotels, complete with reclining seats, picture windows, air conditioning, and washrooms. In between these extremes are buses of varying shapes, sizes and vintages, which over the past 35 years have become a transportation habit for commuters, sightseers, vacationers and short-distance travelers.

Automotive buses made their appearance in Canada just over 40 years ago. One of the first adventurers was the Brewster Transportation Co. at Banff, Alta., which was in business as early as 1914. Another pioneer was J. N. Booth who ran sightseeing buses in Toronto. His vehicles were merely bus bodies on a hard-wheeled truck chassis. They seated 12 jiggling passengers on two facing rows of hard seats.

The Toronto Transit Commission, as it is now known, bought four double-decked, solid-sided vehicles in 1921 and put them on city routes. Four years later the T.T.C. branched into the interurban field with the incorporation of Gray Coach Lines, and on the west coast, B.C. Motor Transportation Ltd., now operating as Pacific Stage Lines within a 100-mile radius of Vancouver, put its first buses on the highway. Canada's largest bus company, Provincial Transport Co. of Montreal, was formed in 1928. In the Maritime provinces, SMT (Eastern) Limited and Acadia Lines came along in the mid-Thirties. About that time the American Greyhound Lines crossed the border and began operations in eastern Canada.

At first the bus companies met stiff competition from radial lines and railroads. But their greater operating flexibility gave them the necessary edge to firmly establish themselves in the national transportation field. They gave more frequent service and made more stops, and as roads improved and interlaced the countryside, they were able to deliver passengers to areas the railways couldn't economically touch.

The depression struck as the bus business was getting a foothold. To keep going, the industry fought for every fare it could get. The story is told of a farmer who asked a passing driver if he could take a call to town by bus. Thinking the farmer had said cat, but knowing animals were prohibited, the driver agreed, providing the animal was in a bag. Both were disappointed when the farmer appeared at the bus stop with a calf completely bagged except for four protruding legs.

By 1940, when Charlie Hill started driving, the business was firmly rooted, and the war years gave bus companies an even stronger hold. Gasoline rationing and the shortage of tires meant that more and more Canadians rode buses. As the number of passengers increased it meant more buses and more scheduled runs. Today buses run on every main thoroughfare, competing with, and complementing the railways and air lines and accounting for more than 540 million of the national passenger revenue.

Gray Coach Lines has 326 buses operating over 1,368 miles of highways and byways in central and southwestern Ontario. Last year its coaches traveled more than 20 million miles. Provincial Transport's 350 coaches (including those of its subsidiaries Colonial Coach and Autobus Saguay) cover more than 26 million miles annually in Quebec and eastern Ontario. Running in Ontario and the western provinces, Canadian Greyhound's 175 coaches clock about 44 million miles while smaller lines like Pacific Stage, SMT (Eastern) Limited and Acadia average two or three million miles a year.

While regular interurban highway runs are the mainstay of bus lines, today's bus service includes many unusual features. You can buy a "package" tour for most parts of Canada and the United States, go sightseeing in a "greenhouse"-type vehicle; spend Sunday afternoon on a mystery tour or charter a bus for a picnic 10 or 1,000 miles away.

The package tour was born at the Chicago World's Fair in 1933 when an enterprising agent offered transportation, hotel accommodation and entrance to the park in one bundle. His idea didn't set the world on fire then, nor did it when it was repeated at the New York World's Fair. Revisited after the war, it has had phenomenal success.

Today, at a moment's notice, you can buy a package tour for almost anywhere on the continent. All that is necessary on your part is to pay your money and board the bus. Entertain- ment and hotels are arranged in advance. Expert guides often

This is a familiar cry to the 132 million Canadian passengers who annually commute, picnic, sightsee and even tour the continent by bus

Waiting for zero hour

Bus and driver ready

And away we go

Impartial Oil Review, February 1936
accompany the tours which are designed primarily for sightseeing and vacationing. Even car owners find them attractive because of the protection they offer from driving, parking problems and accommodation worry.

Two summers ago a traveler from Kapuskasing, Ont., found a two-package tour to be the answer to her problem. For less than $300 she visited most of the sightseeing "musts" in the United States and western Canada. Her only added expenses were for lunch and souvenirs she bought.

Art Toogood of Unionville, Ont., has a bunch specially-designed for lady teachers which sends them on a seven-week continental vacation at bargain basement prices. The bungalow includes transportation, accommodations and all that clothes to wear and are loaned luggage which fits compactly into compartments. At night they park in trailer camps. One of the three home-built sleeper buses has a galley built in the doorways. Here the versatile bus drivers—working on three propene-gas stoves, display their skill as short-order cooks.

The charter service of a bus line will handle almost any request: they'll take soil conservationists on a province-wide tour, local dignitaries on a goodwill visit to a neighboring town, or a group of eight to 80-year-olds to a family reunion. Real estate companies have rented buses to show their agents what properties they can offer. One bus in Montreal is specially equipped to carry paraplegics, and since 1938 the Canadian Imperial Oil for its customers; bills are mailed monthly.

In the tremendous postwar home building program, which has sent suburbs sprawling as much as 20 miles from downtown centres, the interurban buses have found a new outlet and have proved a boon to many suburban commuters. Some companies have inaugurated special commuter services with reduced fare for these suburban fringe areas; others have increased these services during the commuter hours. For the suburbanites it is more daily driving for the breadwinner and the car at home for his wife.

All this bus mileage adds up to a lot of gasoline and diesel fuel—estimated 36 million gallons in Canada each year. While the majority of buses are still gasoline-powered, many companies are turning to diesel fuel. In the large buses on long distance runs, they find it more economical. In a test conducted about two years ago in Harrisonburg, Pa., diesel fuel gave 40 per cent more mileage, and yearly operating expenses were estimated to be 23 per cent less than gasoline-powered vehicles.

Another bus fuel available in some parts of Canada is liquefied petroleum gas—known in the trade as LPG. Some buses in western Canada have converted to the new fuel. Drivers say it has more power and evenness than gasoline. If it is clean burning, but re-fuelling is a problem. The Harrisonburg test, admitted as inconclusive, showed it to be more costly.

Whether they use gasoline, diesel or LPG-powered buses the

Legion has used it to take their handicapped friends to sports events, concerts and shows.

In a northern Ontario town a group of girls chartered a bus to pick up their dates for a Sadie Hawkins dance. The boys were escorted home— naturally by bus. Each summer, Montreal pianist Billy Eckstein hands Provinicial Transport officials one of their most unusual charters. The occasion is the late Eckstein's late pet dog, Casey; a chummy canine who had also been a friend and playmate to the neighborhood children. Each year the Ecksteins had thrown a party for Casey's birthday and invited all his little friends. When Casey died three years ago the Ecksteins decided to continue the annual celebration—but first the youngsters pay their respects to Casey, now resting in the dog cemetery at nearly Caughnawaga. They go by bus.

With increasing competition from the automobile and the other transportation, bus companies are using every means to entice and hold highway riders. Many are offering family fares; full fare for Dad and half fare for Mother and the kids. In Saskatchewan, the provincial government corporation has started a credit card system similar to that used by success or failure of the bus industry, more than any other form of public transportation, depends on the driver; not only for his technical skill, but for his personality. During the time he is on his run he is in constant contact with his passengers, and to them, he is the company bus.

For this reason, bus companies choose and train their drivers with the care of a woman selecting her Easter bonnet. They are tested for physical fitness, aptitude and intelligence, as well as driving skill. Their characters and personalities are delved into. They undergo a rigorous training course to learn how to handle their large vehicles on all the routes the company uses. Because each driver is responsible for a lot of expensive equipment—a large model transcontinental bus costs $60,000—and for the safety of his passengers, a major part of their driving instruction is in "defensive" driving—to avoid accidents.

"When the time comes to take your first bus out, you're ready to handle anything," says Charlie Hill. Which is just as well, for bus drivers meet just about every highway situation. Drivers have given first aid to injured motorists and sick passengers, backed their heavy buses down icy winter hills, and in Quebec, one driver stopped to rouze the sleeping occupants of a burning house and carried an 89-year-old invalid to safety.

In Vancouver, another driver left his bus to chase a driverless small English carriage until he was under control he gave the motorist a lesson on how to park a car on a grade.

Drivers in almost every part of Canada have raced the stork to the hospital. One Toronto driver even stopped to pick up a doctor before continuing his dash to the delivery room. (Drivers have orders to leave their routes if a passenger needs immediate medical attention.) Hill too, has had his entry in the baby stakes. He drew into the terminal one day to find he was going to be the father of a baby girl. "We got the mother to hospital, but fast," says Charlie. "Even though I'm the father of three children, it still shook me."

But it didn't shake him as much as the hurricane he ran into one day on the Barrie, Ont., route. Bus poured down like a waterfall and lightning ripped the sky in two. Deep-rooted trees, torn from their moorings, toppled like nine-pins, and a barn sailed through the air across the highway. Hurricane or no, like the mail, Charlie's bus went through. Another time, Hill and a soldier bailed out the rear of the bus while the rest of the passengers sat calmly. Charlie was behind a large coal truck when it ran into a small child. It was Charlie who carried the limp bundle into a nearby farmhouse.

"Many of us left school early, but such experiences are an education in themselves," says Charlie. Not that the "professor," as his fellow drivers call him, needs it. He holds an extrasalarial doctor of letters degree from an American college, and for some years has been writing for newspapers and magazines. Often on a northern Ontario run, where he has to lay over for a few hours, Charlie pulls out his battered and well-traveled typewriter, wraps himself in mosquito netting and starts pounding the keys.

"You can't drive a bus though, if you don't like people," observes the "professor." In his 16 years he estimates one and a half million passengers have passed through his buses. "Each one was different—but most of them have one thing in common. Sooner or later they leave something on a bus: anything from false teeth to baby food. I've found cameras, umbrellas and earring by the doz. And gloves. Men usually leave one glove, but women leave the pair. People lose money, too. A friend of mine found $6,000 on his bus. It was never claimed and went to a fund for orphans."

Like all bus drivers, Hill always hates to find in his bus an unclaimed hat, coat and suitcase. "We know them where along the road—probably at one of the stops—we left a passenger behind."

But like emergencies and accidents, such occurrences are rare. In the vast majority of times that a bus leaves the terminal it is for rest, for physical fitness, or an extra ride. And if the passenger on the express bus out of Toronto heading for Hamilton learned from two young boys on board that their parents were expecting them in Ajax, the other side of the road without a breath of sigh of relief when the driver turned his bus around, and got the boys back to the terminal in time to catch the right bus.

Such solitudes has paid off in a business that many Canadians now couldn't do without. One grateful passenger in British Columbia expressed his feelings in a tangible way. He sent an installed gold ring with a black stone "to my favorite bus driver for many pleasant bus rides."
An ancient Ford in last summer’s Glidden tour of Canada recreates 1912 scene