EDUCATION NEEDS EVERYONE'S SUPPORT

In Ottawa next February about 700 Canadians, from all walks of life and from every province, will meet to take a long, hard look at education problems.

The importance attached to this first national conference on education is shown by the sponsorship of 19 national organizations, and the participation of many other groups. Among the sponsoring and participating organizations are the Canadian Federation of Agriculture, Canadian Manufacturers’ Association, Canadian Labour Congress, Canadian Chamber of Commerce, National Council of Women, Canadian Bar Association and the Canadian Legion. Canada’s four national education associations are sponsors. A distinguished Canadian, Dr. Wilden Penfield, known internationally for his contribution to medical science, will be the conference chairman.

Undoubtedly the earth satellites, produced by a society competitive with our own, will cast their shadows over the conference, but the meetings will not be devoted primarily to a crash program for scientific training; nor was it hastily brought about as a result of recent scientific events. The need for such a meeting was conceived more than a year ago as a result of the increasing concern of many people, from many different occupations, about the direction and goals of Canadian education at all levels.

Many factors have served to stimulate a conference of this size and scope: Canadian population expansion—one-third of our population is under 15 years of age—with a growing and urgent need for more teachers and buildings; the large numbers of drop-outs and failures in our schools and universities; the lack of motivation among many gifted children; the increasing needs of technical manpower; and the continual debate on standards and quality of education.

The sponsors of the conference realize the meeting cannot solve all of these problems outright, or submit solutions that will be acceptable to everyone. They understand, of course, that the Canadian educational system is based on a foundation of provincial autonomy and the rights of local school boards. Nevertheless, they believe that the meetings of educators and laymen in the conference workshops and committees will set up important guidelines for the future course of education in this country.

The conference will study such immediate problems as: quality and qualifications of teachers, curricula and courses of study, school financing, the problems of scholarships, higher education and technical training. In addition, such subjects as the role of the home in education, and special needs for handicapped children, gifted students, and adult education will be discussed.

A number of provincial advisory committees have been established across Canada by the conference executive to discuss the program and advise on it. Whatever happens in Ottawa next February, the true worth and effectiveness of the meeting will depend on the extent to which its findings are communicated, and how much they serve to stimulate public thinking.

This important conference on education merits the attention of all Canadians.

IMPERIAL OIL REVIEW

VOL. 41, NO. 6, DECEMBER 1967
Canada’s planners have laid out new suburbs, industries, highways and even whole towns. But they're the first to protest that planning is often spotty and narrow in scope due to arcaic bylaws, lack of support and too few trained men.

Canada is the fastest growing country in the world. Even Brazil, next on world growth charts, is a poor second.

Our towns are creeping out over farmlands and once quiet outskirts. Bright new industrial plants dot the countryside. New towns and villages are being settled by new pioneers. From Kitimat to Labrador there is an ever-increasing development of industry, towns and resources involving the housing, livelihoods and welfare of several million Canadians.

While this prosperous blossoming has been greeted with unrestrained enthusiasm by many, it is viewed with some apprehension by one small, select group of Canadians—the professional planners.

Many of them feel that we are being carried along willy-nilly by the tide of growth without adequate planning and preparation for the future. They feel that the community and town planning that is being done in Canada is spotty and too narrow in scope; that our planning should be on a longer term and cover much wider areas. They say that some communities, industries and planners are being stifled and frustrated by antiquated zoning regulations and bylaws that have not kept pace with modern developments. Perhaps most important they foresee a shortage of trained planners. The main reason for the planners' apprehension is housing—and all its attendant services.

By far the greatest population and housing growth is in the communities around our cities. The average yearly increase in suburban population across Canada now stands at 9.6 per cent. The highest figure is around Windsor, Ont., where a yearly increase of 13 percent has been taking place. Toronto, Hamilton and Vancouver have averages of over 11 percent; Montreal nearly seven percent. The country is spending about $6 billion in construction yearly.

One of the most striking instruments of this Canadian shift to the suburbs is the automobile. Without it, the new suburbs would not exist. It ties them together and to the parent cities, and the local service station and dealer have become as essential to suburban life as the corner drug store and druggist.

About six-tenths of our population now live in and around our cities and half of these live in suburbs where public transportation is often non-existent. It is estimated that one in every five Canadians owns a car, nearly one for every family. And more and more suburban families are beginning to feel that two cars are a necessity. "The suburbs and the automobile have grown up together until the suburbs have now reached the position where they cannot exist without the automobile," says Dr. Albert Rose, associate professor of the School of Social Work of the University of Toronto.

But although the automobile knits together the new Canadian structure it is not an undoubted blessing. What it has made possible, it is also helping to make impossible. It is helping to clog roads in and out of cities, and posing increasingly difficult problems of how to park thousands of cars when there's only space for hundreds.

This, and other problems generated by the growing and changing face of Canada, are being struggled with by professional planners. Will today's suburbs breed tomorrow's slums? Will the giant mining ventures on Canada's northern frontiers bring about ghost towns of the 1980s? Will rich farmlands be so overrun with housing and industry that we can't grow enough food to feed ourselves? More important: Is there enough planning? And is the planning good enough?

Community planning is such a vast subject that few people can visualize the whole of it. There are town planners, rural planners, industrial planners, geographers and parking planners. There are traffic planners, highway planners, government planners, social planners, economic planners and recreational planners. Practically every phase of community life is connected with planning—or the lack of it.

Planning may be the clearing of a virgin site to build a town, with the attendant arrangements for sewers, water mains, electricity, roads, lots, types of houses, schools, churches, shops, and service stations to serve it. It may be the planning of a downtown area to clear it of costly slums. It may be the intricate planning of a new skyscraper office building or an industrial plant, an airport, a major highway or a park.

Planners of all sorts are urgently needed in Canada. Only four Canadian universities—McGill, Toronto, Manitoba and British Columbia—graduate planners, although the University of Western Ontario's geography course is one of the most popular courses on the continent for future planners. Many people believe knowledge of soil, population, and other geographic features are essentials for a career in planning. Dr. I. G. Pliva, head of University of Western Ontario's geography department believes, "A planner should be able to see a large general view of things, not just one aspect. A student interested in planning should start with fundamental training in science or engineering, and do post-graduate studies in the social sciences, such as economics, sociology or business administration."

A great number of people (complain some professional planners) are in planning today because of a "Topsy-like" development of some basic training such as engineering. "We are going to need several thousand qualified planners in Canada over the next 10 years," says Dr. Pliva, "but many planning graduates will be lost each year to work in jobs where they will not use their complete planning skills."

These skills can often prevent costly municipal errors and in some cases have been able to turn apparent municipal planning defeat into victory. For example, an eastern Canada rural centre with a population of about 900 scattered residents was recently visited by a builder who wanted to erect 1,000 homes in the area. It would mean, said the builder, a great increase in taxes; the village would prosper.

The town clerk's eyes lit up. The first step was to get the project okayed by the provincial planning department. Things look so good on paper that an early decision was expected. The
houses were to be cheap, mainly because of cheap land. An official of the provincial planning department visited the village. "How about water supply?" he was asked.

"Well, we've a bit short, but maybe you can help."

"I wish we could. How about a proper sewage system?"

"We'll pay for it out of our taxes."

"It'll cost you thousands of dollars."

"I'm afraid so. And then there are other important items such as social welfare and shopping facilities," said the planner. After weeks of research and questioning the town clerk came to realize that the proposed development would bankrupt the village. The builder tried elsewhere.

A case of planners turning defeat into victory occurred in an Alberta town which had reason to believe that a large industrial plant wanted to settle there. The town was far from prosperous, but town officials tidied up the garden in front of the town hall, laid out the red carpet and welcomed the company officials. After polite, but brief, conversations the company turned down the offer. The town had no industry to offer, and they'd like to help you, but you have no rail connections, and water is not plentiful enough for our operations," they said.

The defeated council appealed to the provincial planning board for help. The planners showed the townfolk how to get more water, how to put in an economical sewage plant, and how to develop residential areas for workers. Assured of industrial traffic, the railway was persuaded to put in a branch line.

The town council proudly presented their revamped community to the industrialists. Realizing they were dealing with people who meant business, the company reconsidered and bought land to build a plant. The town population has since doubled, local business is flourishing and other new businesses have come into the area.

There have been occasions when planners have had to buck public opinion. Such was the case when a Ford Motor plant was established at Oakville, Ont. Some local residents were against a large industry in the area. But the planners were for it.

Nearby Lake Ontario would provide ample water, good rail services were at hand, a major highway passed right next to the site, and a thriving township a mile away contained all the necessary services. On the planners' advice the plant went in and has been an asset to Ford and Oakville alike.

Obviously planning on this scale can only be done by professionals. But what about the average community that can't afford trained planners?

Most have some type of planning authority, even though it often consists of one man who takes time off from his farm work or village shop to help his community grow. The smaller municipalities in all 10 provinces often have active community planning boards drawn from local citizens. Approval for changing zoning laws and putting in new industries, subdivisions, parks and retail outlets such as stores and service stations, comes from them. Advice is given them by provincial planning authorities. At this level university-trained planners are at work, taking into consideration the social, administrative and economic aspects as well as the architectural and aesthetic values.

Canadian industry in the meantime has been growing fast too, and community planning is something which businessmen are beginning to realize will not only save thousands of dollars, but may actually mean the difference between a venture's suc-

For instance, Imperial Oil has a large staff which works with the planning officials of hundreds of municipalities and villages across the country. New warehouses, bulk plants, marketing offices, service stations and the building of the company's new executive offices in Toronto, are all projects which need close co-operation with community planners and boards. The company employs a business geographer, Dr. Ken Walter, one of the few men of his profession in Canada, to determine scientifically the best sites for company buildings. Dr. Walter says: "We have to find sites that are not only suitable for us but which will best serve the community we build in. Service stations, for instance, must be near traffic for they depend on it for their business. Sometimes the company's first choice conflicts with another plan the community has in mind. In these

cases we try to reach a compromise, for we have a common interest with each community we are trying to serve."

For instance, Imperial recently applied for a permit to build a station in an east Toronto suburb. The council rejected the application. It wanted to put a medical centre on the site. "Why don't you use this site?" the council said, referring to a different site already zoned for service stations. Imperial agreed. The place didn't look as attractive economically, but it would still serve the neighborhood.

Other companies too, plan their enterprises on the common interest of community and industry. Some even plan from scratch. When the Aluminum Co. of Canada decided to place its smelting plant on the northern B.C. coast near the Indian village of Kitimat, 80 miles from the nearest town, it hired planners to develop the bush country into a town of 20,000. Today, families living there have every facility of the city dweller.

When Liberal LaBine's uranium find on the north shore of Lake Athabasca brought scores of men with the fever of a gold rush to the area, the Saskatchewan government stepped in and built a planned town, Uranium City. Instead of the tents and shacks of the traditional boom town, Uranium City has a modern hotel, permanent stores and churches and even a sandy bathing beach. Pleasant streets curve through residential areas dotted with flower gardens and clumps of pine.

Another mining development, in the Algoma district of northern Ontario, brought about the town of Elliot Lake. Donald Taylor, chief planner of the community planning branch of the Ontario Department of Planning and Development, terms it "one of the best planned communities in the province. It is economically sound, has modern shopping centres, good schools and the best housing in Canada. Its roads bring the traffic into the town without bottlenecks, and yet provide easy access to industry."

Good roads and highways, the lifelines of many such communities, have created many changes in the Canadian countryside. Once-lonely farmers have been brought closer to schools, churches, hospitals and stores. This has prompted the provinces to look seriously at the development of their agricultural areas.

It is in the more highly-populated provinces that the most serious agricultural problems have arisen. As the large towns grow—and at present they are the fastest growing parts of the country—they eat up valuable farmlands which are needed to feed a growing population.

Dr. Peavey says, "Few people realize that Canada is actually quite poor in farming land. Good arable land covers only about three percent of our country. This is being eaten up by housing and industrial development at an alarming rate. Land developers in southwestern Ontario, for instance, are offering the farmer as much as $3,500 an acre. The farmer probably inherited the land from his father whose grandfather bought it for $5 an acre. Can you blame him for accepting? He tells himself he'll sell and start another farm elsewhere. But he finds he can't get the sort of land he wants, so he goes into some other sort of business."

Perhaps the most contested piece of land in North America is the 130-mile strip running along the shores of Lake Ontario from Oswego to Niagara Falls. It contains two of the country's largest cities, Toronto and Hamilton, and some of the most fertile land in the country—the Niagara peninsula fruit belt. This land is being goballed up so fast that some planners predict that it will soon be one continuous built-up area.

Actually, the Niagara area shows the dilemma which modern development poses for planners. Each community jealously guards its right to develop in its own way. But what each com-

community wants is not always the best for the area as a whole. A planner in the provincial capital with the needs of all communities spread out before him, sees a different picture. He sees small communities not as isolated units, but as adjoining pieces of land, perhaps needing joint water and sewage works, roads and services. He sees big cities, as from an airplane, an amazing interlocking mesh of houses, factories and highways.

"We could easily get into the troubles of one major U.S. city where each of the hundred or so areas around the city itself," says Hugh Lemieux, a prominent Canadian planner, "and you may find yourself travelling down a limited access highway only to discover it suddenly ends in a trickle, at a minor street, when it comes to the next planning area."
Says Dr. Peave, "We must have larger and larger planning areas to make planning effective. There is one good solution to the problem in Ontario. The county system, although archaic, still exists. If we could plan for a whole country at a time, we could achieve some success. The counties have the necessary powers but they are rarely used. We have a large country and to some extent its future depends on how we plan and build now."

One of the best examples of how an area can be combined into one authority for planning purposes has been the affiliation of 13 municipalities in and around Toronto under one metropolitan authority.

Toronto is said to be the fastest growing city in the world; $326 million were spent there last year on construction. There is a move to enlarge the metropolitan planning authority to a radius of 75 miles—about 8,500 square miles. At present metro planning authority, held by the individual municipalities until 1953, extends over 381 square miles. By 1980 Toronto expects a population of 21 million. The need for future planning is evident from the present situation. Today there are not enough houses to hold even the 1,300,000 people who live in the metropolitan area, in spite of the number of new residential developments that have sprung up. And planners regard many of them as future slums because they were improperly planned, with repetitive rows of "strawberry-box" houses standing as monuments to poor community planning.

While suburbs like these have been growing, changes have also been going on inside the big cities.

In the western centres, such as Edmonton and Winnipeg, planners are hard pressed to keep pace with the industrial expansion and population growth within the city borders.

Greater Winnipeg, which now is also under a metropolitan planning commission, embracing 14 areas, is planning for a growth of 400,000 in the next 25 years. Over 20 new highway projects have been planned since 1931; six new downtown parking lots; new zoning laws; new residential subdivisions, and a plan for developing a new central business district are under way.

At Edmonton, the picture of change is even more striking. Places of business have doubled since oil was found near there in 1947. With a population of over 210,000 the growth is expected to continue. City planners are making sure they can cope with this expansion. A pleasantly planned residential area has grown up around the university, and housing developments along the banks of the North Saskatchewan river have been carefully worked out. The city boasts the largest shopping centre in North America, with a parking lot for 3,500 cars.

In Toronto, traditionally a city of house dwellers, 40 percent of the housing construction last year was in apartment blocks. City land has proven too costly for new houses.

Montreal has plans to revamp the downtown area. A 24-acre development centreing around the two railway stations will produce a sort of Rockefeller Centre, including a skyscraper near the new Queen Elizabeth hotel. The cost of the whole project is expected to be $124 million. And there is talk of expanding the work to take in the district leading up to the McGill University campus.

In both Toronto and Montreal slum clearance programs are under way in an attempt to revitalize valuable land.

"Much has been done to wipe out slum since the war," says Dr. Rose, an internationally active authority on the subject, "we are moving far too slowly and not covering a wide enough area. The tragedy is that the costs of clearing occupied land are growing fantastically. What we could have cleared in 1935 for a few thousand dollars now costs hundreds of thousands."

The most striking Canadian slum clearance development to date has been Toronto's Regent Park project. Over 42 acres of the depressed downtown area were cleared in a program starting in 1947 and costing $516 million. It provides apartments for over 1,200 people. An extension of this project is now underway, consisting of 734 units, covering 26 acres and costing about $108 million.

A slab development program in Montreal has been started just south of the eastern part of St. Catherine street. Here one-third of the houses have no baths and more than 60 percent of them, all told, are sub-standard for reasons of age or another. Areas of adults in the area is at the rate of 118 per thousand, compared to 18.5 per thousand for the rest of the city. Public assistance for the area is three and a half times as high as for the wider city.

The clearance and erection of dwellings for 1,300 people will cost $1 million at present rates, and probably a lot more by the time it is finished.

But planners have to be sure they are not knocking down today's slums only to put up the slums of the future. For this reason parks and recreational areas have been included by large companies in new shopping developments, and wide streets with access to public transport are important considerations.

The same considerations apply in the suburbs, with one most important addition. The suburbs exist because of the automobile, and unless proper provision is made for it in the form of good roads, proper spaces for private parking and adequate service station facilities, the system breaks down. "The problem," says one authority, "is like building a huge ship for the Atlantic and having no place to fuel her."

The town of Mount Royal in Montreal was, until a few years ago, considered an advanced and well-planned community. Today, some planners have changed their minds about it. The town made no provision for service stations, and car owners, many of whom use their cars for work, have no place to buy gasoline and some have to travel up to two and a half miles to get to a service station.

"It is not so much whether the suburbs need good and plentiful service stations, but where to put them that worries some community officials," says Dr. Peave. Modern planners agree that arched community laws, which are often unduly restrictive to service-station building, are fatal to proper town planning. One result is the bending of gasoline alleys where service station after service station stands at the edge of a forbidden area. One such "alley" exists in western Toronto. Not only do some residents have to travel several miles to buy gasoline but when they get there they are confronted with a veritable bazaar of service stations.

The implication of providing adequate service station and community facilities in such areas is emphasized by the fact that the trend is still to the suburbs and the trend can only increase. Dr. Rose says, "In spite of apartment construction and stories about the big move back to our cities, the situation is still just the opposite. Suburban dwellers couldn't move back if they wanted to. There aren't the houses downtown."

Planning officials are reluctant to give a picture of the future of our communities, but some of the more imaginative give the city downtown areas a new look. Some believe that downtown traffic will be eliminated and the downtown streets replaced with gardens, parks, outside cafés, squares, fountains, theatres and decorative features. Overall signs may disappear and cables and electric poles may go underground.

Others see cities ringed by a series of highways, with cloverleaf turn-offs and tiered parking lots, leading to the centre of the town. Subways, buses and fast commuter trains running every few minutes will take down towners to the heart of the city. Some towns are already installing moving sidewalks in large shopping centres. Office buildings are likely to be skyscrapers with push-button elevators, video-phoepes and underground parking lots.

The problems connected with this redesign are fantastic. Expenditure will be the major item, and the shortage of town planners will also hamper activity.

The problems of the suburbs may not be as great. There is more room for expansion and some already well-developed plans. The big change will be in design and convenience. Dome-shaped plastic houses, heliports, service stations with jet fuel pumps, and supermarkets with pushbutton ordering and automatic packaging and billing, seem likely developments. But whatever happens, Canadian planners will have a tougher and tougher job. Thirty-eight percent of the country's population is under 18, which is over twice the world average. This means marriages and births will be constantly increasing for the next 20 years. One planning expert says, "This is a fine thing for furniture salons, baby carriage makers and real estate agents, but it's causing planners to wonder when, if ever, it will end."

Edmonton boasts the largest shopping centre in North American planners laid out a town for 20,000 in the bush country of northern B.C. Now Kitsimat townpeople have every facility of city dwellers.
Franklin Rafuse, an Imperial dealer on Nova Scotia's south shore, is never content doing one job. Now he's back at university while his gasoline business thrives at

Franklin's Place

by Pierre de Boisid

Each day this winter, while the Atlantic wind whips an icy spray over the beach at Western Shore, Nova Scotia, the Seaside Service Station, better known as Franklin's Place, is the scene of the same old bull sessions that have gone on there for the better part of 20 years.

This winter, however, is different from most. The man who made Franklin's Place the unofficial social and municipal business centre of Chester Municipality is missing from the group around the old wood stove.

Ironically, the same traits that made Franklin Rafuse a highly successful service station operator and enabled him to carry on through the gravest crisis of his life have now taken him away from his business for at least two years and probably for all time. His interest in people and in community and social problems has carried him back to university, where he is preparing for a career in hospital administration.

Now 46, with greying black hair, humorous blue eyes and a heavy handshake, Rafuse never was a man to be content with only one job at a time. While he was still at school, he helped ease the teacher shortage by instructing the younger children. Later, when he acquired an Imperial Enso dealership, motorists began to notice that he seemed interested in them not merely as customers, but as people. Seaside soon became one of the busiest service stations on Nova Scotia's south shore.

But even a thriving service station business was not enough to keep him busy, and he sought outside interests. By last summer he had been active in more municipal, social and charitable organizations than he could remember. He was into his ninth year as warden of the 10,000-strong municipality of Chester and his 18th year as a council member. At the same time he was chairman of the school board and the board of health, clerk of St. Martin's Anglican Church and an active member of a board of trade at nearby Mahone Bay. At various times he had been district deputy grand master of the Masonic Order, a director of the Children's Aid Society and the Red Cross of Lunenburg County, warden of his church, secretary of Western Shore Memorial Hall, president of the Lunenburg local of the Nova Scotia Teachers' Union, and an executive member of the Nova Scotia Union of Municipalities. In his spare time he curled at the Bridgewater Curling Club and swapped yarns and talked politics at the Canadian Legion Hall. (He was in the army for a short time during the Second World War.)

Quite apart from the customers at the pump and the casual visitors, Rafuse had a steady stream of people coming in to see
DR. LARGO'S DELIGHTFUL DISCOVERY

Office of the Director,
Museum of Ancient History,
University of Oxbow, Oxbow, Sask.
June 15, 2014 A.D.

Dear Arbuthnot:

I am glad to report some progress at last in our strenuous efforts to fill in the past history of our race. As you know, the task, undertaken only since the fourth Martian invasion, has been complicated by that deadly enemy of historians, the paper beetle from the planet Mercury. (It is interesting to speculate how much recorded history would exist today if some obscure and ancient efficiency expert had not imported the first few paper beetles to destroy "all that unnecessary paper in the offices of governments and bureaucratic institutions." If only he had foreseen that the paper beetle would be incapable of distinguishing an historical treatise from an intermin memorandum?)

Now, of course, it is almost 50 years since the paper beetles were finally routed after chewing up every paper book and document they could find on our planet. Thus the enclosed colorstats should be of inestimable value. They were found, engraved on copper plates, in the archeological excavation of a house in Pegapolis (in ancient times, Winnipeg). The house is thought to have belonged to a person named Imperial Dealer (although this may have been a title within an ancient fraternal order).

You will note that in each picture there occurs a device which was used by the ancients to dispense a useful petroleum — base fuel — called variously Essence, or Eto. It seems clear that this fuel (used to power a vehicle called a car, plural stos) is of more ancient origin than we had previously believed. (Incidentally, Dr. Archibald, who, as you know, is a bit of a wag, suggested the plates were the result of nothing more than a prank by an ancient, demented editor employed by the company engaged in selling the essence. Since many a truth is spoken in jest, I confess I considered consulting the archivist at Imperial Oil Limited, known in primitive times as Imperial Oil Limited, but a closer examination of the drawings convinced me that the authenticity of the plates is beyond question.)

You will note my tentative comments on each of the engravings. I am afraid that in many cases I have had to fall back on speculation. (Confound those paper beetles.)

Anyway, here they are for your comments...

Imperial Oil Review, December 1937
This plate clearly indicates that "essence" (or Esso) was available to the public during the Ptolemaic Dynasty (a fact which will be news to a lot of people). We know from other sources that during this period the queens of Egypt were called Cleopatras. This is therefore a Cleopatra, being conveyed on a station wagon. The baboon is puzzling, but perhaps he is what was known as a radiator ornament, the meaning of which is obscure. (Dr. Archibald suggests he is a grease monkey, but I suspect him of levity.)

Frankly, this first engraving has most of us rather puzzled. Obviously, the device is a mechanical horse (hence our expression horsepower) and equally obvious is the period: Early Greek. (Men’s trousers came much later.) However, our engineering experts have pointed out that while the horse has wheels, it has no apparent transmission, and must surely have been difficult to steer. Also, its headlights seem to be pointing in the wrong direction.
It seems clear from this panel that the Romans also enjoyed mechanical transportation, since this panel shows a Roman citizen after a successful expedition to some local grape shop. His evident joy is difficult to understand since the bunch of grapes is, after all, a small one. More likely he is happy because he has unexpectedly spotted an empty parking space.

It is unfortunate that the artist did not date these engravings. The smaller figure is evidently applying a petroleum-base rust-preventative to the joints of the metal armor worn by the larger figure. (This at least dates the incident prior to the development of stainless steel.) But if petroleum was in wide use at this time (as the banner would indicate), why is the armored figure wearing spurs? Have we — perhaps — finally come upon one of those legendary heroes known as Wyatt Earps?
This panel is clear enough, although again the period can only be guessed at. (It may be that extremely early English era when the Wigs were in power.) We know that the device being carried is an early car (or caddy) because of the horn, a quasi-musical instrument with which the vehicle operators were wont to greet each other. Evidently the vehicle's wheels have fallen off. Dr. Archibald suggests that this is not a vehicle, but a portable form of the isolation booth, a device used for torturing great scholars during the Television Age.

This panel clearly represents a scene of more recent date, possibly mid-Twentieth Century. The person in front, riding the single-wheeled vehicle, is probably a cop, or guide. We believe it was his function to ride in front of a procession of vehicles. You will note the carefree expression on the faces of these people living in the days before space flight and heavy taxes. Those must have been happy, tranquil times.
We believe that this panel relates to very recent times — perhaps between the first Martian visitation and the first years of the Jupiter Colonization Program. Technical culture here has reached a high level. The Esso dispenser appears to be fully automated, while the vehicle has been stripped to its essentials: one horn, one road wheel. Propulsion is by jet reaction. The winding key in the driver’s back is a little puzzling. Dr. Archibald suggests that the driver is also fully automatic (perhaps owing to traffic conditions), but the features are clearly human, even though there are no feet.

Well, Arbuthnot, there you have our latest find. I shall be anxious to know how our interpretations tie in with your own work on old tombstones. Some details need clearing up, of course, but I am convinced we are on the right track.

Sincerely,

John Sago

Desolate little Frobisher promises to be one of the world’s busiest crossroads. Its international airport, carved out of the Arctic wilderness, is a refueling point on the new polar route to Europe.
Until World War II, the Eskimos had Baffin Island to themselves. Today they're helping to build an international airport and can look at pipe lines, tankage and other refueling facilities they worked on.

It is a biting cold December day at Froebisher Bay on Baffin Island and the airport light is dark in the morning gloom. A bitter wind howls down from the Nares passage lashing snow high against the sides of the Eskimo tents nearby. Inside the hangar, airfield attendants down the last of their coffee and take last drags from cigarettes as they await the signal that will send them scurrying outside into 25-degree temperatures.

From the north a roar of engines is heard over the hunshee wallowing of the wind. Five minutes later, with a furious rush of sound, a four-engined TWA Super Constellation sets down at the landing strip and taxis to its refueling position.

Passengers peer sleepily into the windows. For many this is a first glimpse of Canada from the ground, a chilling view of bleak, snow-swept tundras and a horizon broken only by the prescience of a radar tower that intrudes into the sky. Beyond the hangar, lights glow faintly in the windows of the green-smocked Quanjet huts. At the edge of the tarmac, two Eskimos slouch deeper into their parkas, cigarettes jumbled in their mouths.

Whatever it may lack in tourist attractions, however bleak the view and forbidding the weather, Froebisher Bay, North America’s most northerly civilian airport, has become vital to international air transportation. As the refueling point for aircrafts flying the new polar route from western United States to Europe, Eskimo refueling by Froebisher may some day be one of the world’s busiest crossroads.

Federal Transport Minister George Hees believes Froebisher will soon be well-known to air travelers using the polar route. “Even as Gander and Goose Bay are the refueling and jumping-off airports for Trans-Atlantic east-west routes,” he says, “so will Froebisher provide similar services to inter-hemisphere air travel following north-south longitudinal lines of navigation. It promises to become one of the world’s important Arctic airports.”

Froebisher’s outstanding virtue is a clear, uncompromising climate that makes flying possible at least 90 percent of the time. But the basic reason behind its new-found importance is geographic; it is quicker and safer to fly across the flattened poles than to circle the earth’s bulging circumference.

Stretch a piece of string over a world globe from the Pacific coast of the United States or Canada in London and Paris. The shortest distance—by 1,500 miles—takes you almost directly through Froebisher, making it the logical “halfway house” on polar flights. Because of the greater frequency of service, planes flying the quickest route from western Europe to Australia and Japan will stop off there to refuel. Even when jetliners obviate the necessity of refueling on intercontinental trips, authorities expect it will be kept as an emergency landing field. Froebisher’s location—it is perched over both the United States and Russia gives it strategic importance as a military base.

Twenty years ago Baffin Island was generally regarded as halfway to nowhere, a place on the road to a fast-frozen limbo.

Enduring the outrageously long winters, missionaries penetrated far north and taught the Eskimos a little English and translated the Bible into Eskimo symbols. But there seemed little hope of any permanent settlement; nothing could be grown on Baffin’s lichen-covered flats and the Eskimos had little outlet for their artistic talents other than carving soapstone statuettes.

Even then, however, geographers and a handful of imaginative airline executives were calculating distances and fuel-loads, weighing clear climate against inaccessibility and balancing high refueling costs against lesser mileage. While their calculations showed that the Arctic would provide the shortest route, the problem of refueling seemed insurmountable.

White men had known about Baffin Island since 1578, when English explorer Martin Frobisher sailed past it in search of an Arctic shortcut to China. But even by 1931, when a German aviator passed over it on a pioneer flight from Iceland to Chicago, Froebisher Bay was still only a name on the maps. Then, during World War II, the United States began looking for a good spot in the eastern Arctic for refueling aircraft carrying home wounded U.S. soldiers who had escaped from his invaded homeland and had become an advisor on Allied problems in the Arctic suggested Froebisher as the site. It was almost exactly half way between western Europe and the U.S. west coast, and its natural harbor could easily be reached by sea.

“It seemed that only southerners were sent to build the air-strip,” said one USAF official. “They didn’t lie like he much.”

A runway was started in the summer of 1942 and completed the following summer. A weather and radio station was established on the same site. After the war the airport was turned back to the RCAF and, for a while, interest waned. Then came the building of the Distant Early Warning (DEW) line. The United States Air Force returned and once again Froebisher thrrobed with activity.

Although the Froebisher airfield was not then available to private airlines, Scandinavian Airline System began test flights over the pole and came to what seemed a startling conclusion: it was not only the route shorter, more economical and safer, but it had great appeal to the public because it was only one-third over water—only 100 miles at the longest stretch.

Soon SAS began a regular passenger run between Copenhagen and Los Angeles, and Canadian Pacific Airlines promptly followed suit with a service between Vancouver and Amsterdam.

Both airlines used Sonderstrom airport on Greenland as the refueling stop—awkward and expensive because Sonderstrom is off the direct course and considerably closer to Europe than it is to America.

Then, last spring came the announcement that was to add a new chapter to the story of commercial aviation. The United States Air Force turned the field over to the Canadian Department of Transport on September 1, 1957. The department would spend half a million dollars to make dilapidated Froebisher Bay a modern intercontinental airport. The runway would be extended from 6,000 to 9,000 feet, a $450,000 passenger lounge would be built, along with accommodation for some 73 DOT personnel—all this in what had been nothing more than an Eskimo village with adjoining airfield.

While the USAF had jurisdiction, it shipped in all its own fuel requirements. Then when DOT took over, Froebisher was in immediate need of fuel supplies from some civilian source. At this point Imperial Oil, which has had more than three decades of experience in supplying fuel to Arctic regions, took on the task of building storage tanks and elaborate refueling facilities at Froebisher. With its long winter and lack of building supplies, Froebisher is a place where even the construction of a simple, one-family house is a difficult and fantastically expensive operation. As Imperial’s engineers knew to their chagrin, the shipping season at Froebisher is only three months long; after October 15 the port is blocked and supplies must be flown in. Even in summer, cargo handling is awkward. There are no docks. The 36-foot tide, one of the highest in North America, makes it necessary for larger ships to anchor two miles off shore and unload their cargoes into barges that can be beached. Tankers must discharge their oil and aviation gas through flexible hose floated from ship to shore on empty oil drums. Then, too, there was the labor situation.

But the picture wasn’t entirely black. Despite its Arctic location Frobisher can endure cold temperatures that might be supposed. The coldest ever recorded was 49 below—warmer than the record cold posted by such western cities as Winnipeg and Regina. The thermometer in plunging right across Canada, the average daily low is only 24 below. Generally a bitter wind accompanies 20-below temperatures, but when the temperature drops lower the wind ceases and

Ships leave to dischage the oil at a tank almost two miles from the airport.
the air is clear and dry and quite endurable. Nor is snow much of a problem. The yearly average snowfall is 72 inches, less than at Ottawa or Quebec.

And there was another source of encouragement. Only a year before Imperial had recorded a major achievement in sending the first tanker into Hudson Bay to remote Rankin Inlet. The vast northern areas were by no means unapproachable and ways could be found to move oil to the Arctic.

Late in August, with only a month remaining before Trans-World Airlines would begin a regular service through Frogfisher Bay, a party of Imperial Oil construction experts flew to Baffin Island. Walking miles over the barren tundra, they plotted the operation carefully. The high-octane gasoline would be pumped from a tanker to a 96,000-barrel tank—as high as a three-story building. From this large tank, the aviation fuel would be pumped to three smaller tanks—12,000-gallon "satellites"—more than a mile away. Through another 1,700 feet of pipe line, the gasoline would travel to the hydrants at the airport site. At the edge of the airfield would be three small buildings with office space, sleeping quarters and a garage for an oil truck, a tractor and two hydrant service.

As soon as these facilities were provided, work would start on a two-bedroom house for Imperial's new Frogfisher representative, Don Sooley. When it was ready, Sooley would move out of temporary quarters and bring his wife and baby daughter up from Montreal. His house itself was just one striking example of Frogfisher's sky high construction costs. In Toronto, the same house (exclusive of land costs and community services) would cost perhaps $12,000. In Frogfisher the estimated cost was $50,000. Imperial's engineers applied the same rule of thumb to the other jobs: estimate the cost "back home" and multiply by four.

With the late September deadline approaching and the Imperial Sarnia already under way with two million gallons of aviation gasoline, construction men had to move fast. Welders, steel men and laborers were flown in.

A New Lady For The Lakes

The largest tanker in the Imperial fleet picked up a cargo of oil products at Sarnia last month and steamed from the dockside. It was the maiden run of the 6,000-ton Imperial Quebec launched in August at Collingwood, Ont. The vessel cost about $215 million and brings to 16 the number of tankers in the Imperial Oil fleet.

The story of the Imperial Quebec's maiden voyage is not only interesting, it is also significant. The large tanker was built for shipments of crude oil from the Lake Superior region to the east coast. During its maiden voyage, the ship made a number of stops at various ports along the Great Lakes and Saint Lawrence Seaway. The program was met with mixed success, but it marked a significant step forward in the development of the Lake Superior crude oil trade.

Despite the initial challenges, the Imperial Quebec continued to play a crucial role in the Lake Superior crude oil trade. Its maiden voyage was a significant milestone, marking the beginning of a new era for the trade and for the Great Lakes region as a whole. Today, the Lake Superior crude oil trade remains an important part of the regional economy, with the Imperial Quebec and other tankers continuing to transport oil products to ports along the Great Lakes and Saint Lawrence Seaway.
The city’s unique six-year old driver-training and control program is weeding out potential highway killers

The Middle-aged, auburn-haired Winnipeg woman sat indignantly across the desk from Peter Dygala, Manitoba’s assistant director of traffic safety.

Certainly she had heard about this wonderful safety program. She knew it had cut down accidents in Winnipeg, while they were increasing almost everywhere else. But the whole program was obviously for drivers who were careless or worse.

She, on the other hand, had been driving safely for more than 20 years, and now she was being persecuted because she was unlucky enough to get a couple of traffic tickets and become involved in an accident that someone else had caused.

“It’s a terrible injustice,” she said huskily.

“I’m sorry you feel that way,” said Dygala. He explained that the safety division had studied reports of her accident. Clearly, the other driver was to blame. But, perhaps the lady could have been more careful. Perhaps her vision or driving ability were failing. Hence, the summons that had brought her here for a test.

“No one should object to a test,” Dygala went on. “It’s for your benefit. It doesn’t necessarily mean you lose your right to drive. If you pass the test, fine. If not, then perhaps there are faults we can correct.”

“I know I can pass the test. I’m not the least bit worried.”

“Fine,” said Dygala.

“But I just didn’t fail,” the woman said uncertainly. “If it weren’t for that miserable truck driver, I wouldn’t be here.”

“That’s just one reason you’re here,” Dygala pointed out.

“Remember the traffic tickets.”

“I was just unlucky,” the woman countered. “I’ve always been a good driver. Why, once another motorist stopped me and said, You’re the best driver I’ve ever seen.”

“We all fall into bad habits,” soothed Dygala. “That’s why you are here. There’s no use checking up after you have a long record. We want to prevent it.”

Nearly an hour later the lady motorist went away for her test, still grumbling but somewhat mollified. As R. B. Baillie, motor vehicles commissioner and father of the Manitoba traffic safety program points out, nobody is out to “get” drivers. The idea is to prevent accidents before they happen. And Dygala’s diplomacy was just one facet in what a visiting expert once termed “the best traffic safety program in North America.”

Neither Baillie nor Dygala make such sweeping claims but they’re proud of their record. So far, theirs is strictly a big-city safety program; it’s been in effect in Greater Winnipeg since 1951 and in Brandon since 1956. But this merely helps point up its effectiveness.

Manitoba motor vehicle registrations have increased by 45 percent since 1950. But last year Greater Winnipeg had only 15 fatal accidents (the same as in 1950) and only 1,034 injury-causing accidents (compared to 1,147 in 1950). Without the safety program, the rest of Manitoba reflected the mounting traffic toll that is general throughout most of Canada: fatal accidents up 100 percent, 93 lost year compared to 57 in 1950, injury-causing accidents up 43 percent, 1,362 compared to 953 in 1950.
What does Greater Winnipeg have that the rest of Manitoba lacks? "A driver control and improvement program," says Bob Baillie, a tall, friendly Frisianman.

This program includes a permanent license number for each driver, complete driver records, continual study of accident reports (as well as convictions), a point system which grades drivers according to their traffic offenses, and a stiff schedule of retesting and/or suspension for problem drivers.

In seven years a few basic facts have emerged:

— You can grade drivers according to their accidents and convictions. Baillie knows, for example, that a mere 15 percent of Manitoba's 100,000 motorists are the "questionable, problem or dangerous" drivers.

— You can predict the involvement rate of these problem and dangerous motorists in fatal accidents: they are from two to 34 times as likely to be involved in traffic fatalities as other drivers.

— You can treat, and sometimes cure, substrandard drivers.

But when anyone praises the findings and common-sense approach to traffic accidents, Baillie shrugs: "We're still in grade school, in terms of learning about traffic safety. There's so much we still want to know."

Nevertheless Baillie is somewhat better informed than in the early Thirties when, as an automobile accident insurance salesman, he suddenly realized that "traffic accidents are worse than war." From 1934 to 1944 he reverted to his original occupation of lawyer and, as a crime prosecutor, continued to be haunted by the traffic toll. Often he had to prosecute respectable citizens who had become felons because of a momentary lapse behind the steering wheel.

"I saw many lives ruined by motor manslaughter," he recalls. "Then, when he became head of the motor vehicles branch in 1944, Baillie had a deep sympathy for innocent traffic accident victims and a determination to stamp out the menace."

One requisite, he realized, was an accessible record of every driver. He began sketching a system that was put into practice in the early Fifties and is now near perfection. Every Manitoba motorist can be quickly traced through his permanent license number. Every motorist's record is card-indexed. Problem and dangerous drivers are separately filed, their cards color-coded to indicate the nature of offenses and convictions. Punch cards representing the 9,000 (at the moment) suspended drivers are in a separate file; machines automatically sort these, keeping head office and all licensing agencies up-to-date on who should or shouldn't have a license.

In 1950 Baillie's branch took over traffic safety from the department of labor and soon moved into high gear.

One of its first innovations was a thorough road test, written and visual, for Greater Winnipeg drivers. Beginners, new residents and drivers suspended for improvement must all take it. Its 24-question written examination is easy if you first read the handbook provided by the branch. The book discusses traffic safety in grade six language and carries all questions and answers asked on the exam. But even policemen who didn't bother to read the book have failed the test.

The applicant or delinquent gets a visual test: ordinary vision, color vision, depth of vision, side vision. Finally he takes a sifting road test, covering most city-traffic hazards.

At his elbow sits an examiner with a check-list of 63 points about driving and parking. Each driving mistake or violation draws demerits, the number depending on the seriousness of the violation. Failing to yield the right of way to a pedestrian or vehicle costs 10 points, for example. Stalling the motor costs only one. Fifty or more demerits mean a driver is "not ready" for a license but, after further practice, he can take as many as three more road tests.

Fifty percent of the applicants fail their first road test. When they finally pass they feel as though they've been knighted. Unfortunately, some are still potentially dangerous drivers.

"There's no machine to test attitude, boorishness or selfishness," says Baillie. "So we do the next best thing. In March 1951, we started keeping records of accidents and convictions and set up our accident and traffic violation point system."

Point systems are not unique but Manitoba's differs from some in that it is quite separate from automatic penalties written into the highway traffic laws. It ranges from 10 demerits for drunken or impaired driving, to two for running a red light. The first few minor dererits merely bring a warning letter from the safety division; six demerits mean a summons to the driver improvement clinic.

"Unlike some vehicles branches, we try to explain to drivers why they are in trouble, rather than just lay down the law," says Peter Dygala. "We're different from many other safety programs in this way, too: we study the accident report, not just the conviction. We assess all the evidence and that way get a far better picture of the driver's habits. Even if a man isn't held liable for an accident we may find he should take more care and will give him demerits."

If a driver passes the improvement clinic he is put on a year's probation. (This happened, incidentally, to the auburn-haired woman who voiced her indignation to Dygala.) If a probationary driver is subsequently convicted that year, his license is suspended. To the average driver, who makes one or two minor slips every year or two, the point system doesn't bother him. Every December points are reduced according to a sliding scale (9 points reduced to 4, 5 points reduced to 2 and so on). The infrequent offender soon has the slate wiped clean. The repeater's record remains painfully obvious.

"It's like gold mining only we're after the dross, not the gold," says Baillie. "We're sifting out bad drivers."

Right now about 50,000 Manitoba drivers, out of 300,000, have one or more demerits on their records.
"If we could be sure which are the incorrigibles we’d take them off the road for life," says Dygala.

Unfortunately, even when the point system is combined with an interviewer’s seasoned judgment the system will sometimes fail. In 1953 a Greater Winnipeg businessman with a family and a responsible job was convicted of driving to the common danger and failing to remain at the scene of an accident. He lost his license but passed the driver improvement test and was re-instated. Then he broke his 12-month probation with a speeding conviction and lost his license for a month. A year later, he killed a pedestrian and left the scene of the accident. The courts ordered him off the road for five years but the motor vehicles branch suspended him for life.

"You couldn’t predict that one," says Dygala. "He seemed like a nice guy. He passed the test. Since then his attitude has changed, he lost his job and he’s a chastened man. But how long would he stay chastened after he got back on the road?"

In addition to obvious suspension cases such as that, and those imposed by the law under the traffic act, drivers are also suspended by the safety division for physical and mental disability. Only 276 drivers lost licenses for these reasons in 1956. After cure, mental patients can recover their licenses if they can produce a medical certificate and pass driver tests.

All drivers suspended by the motor vehicles safety division can appeal to a court within 30 days. Eighteen have appealed since 1951 but none was successful.

"But we still have a long way to go," says Baillie. "Our failure rate on road tests is too high. Perhaps it won’t improve until driver education is on the high school curriculum and an adult driver’s course is offered at the university."

"Also, although we’ve gathered much information on drivers in the past seven years, we haven’t had the time or staff to study the relation of things like age, sex or occupation to traffic accidents."

When these factors are assembled they’ll probably surprise motorists. For example, records already indicate that the much-maligned teen-ager is one of the safest drivers in Manitoba. Drivers in their twenties and early thirties are most accident-prone. About four Manitoba teen-age drivers in every 100 are involved in accidents. Seven drivers per 100 in the 25-34 age group have accidents. Eight per 100 in the 20-24 age group have accidents. However, this last group of offenders is gradually improving, indicating that teen-agers retain good driving habits as they grow up.

Apparently, too, traffic safety pays cash dividends. Insurance claim frequencies have dropped from one car in every five in 1947 to one car in every eight in 1954. In 1955 and 1956 most insurance companies in Manitoba granted better yet cheaper insurance coverage because of fewer accidents. Baillie estimates the savings to Manitoba motorists in insurance premiums alone is $700,000 a year. The safety program costs $150,000 a year.

Most drivers appreciate the safety program, but there are those who don’t. Delinquent drivers applaud its rules but think exception should be made in their cases. Suspended drivers get influential friends to plead their cases—to no avail—or try to get duplicate licenses by saying they lost the original.

Last spring when fire destroyed a building which houses part of the motor vehicles branch, four suspended motorists, thinking all records were destroyed, quickly applied for licenses. They told clerks they’d lost the originals.

But the records weren’t burned, and the four found they were liable to minimum fines of $20 apiece and further suspension. Like more and more of their fellows, they’ve found it pays to drive safely in Greater Winnipeg. 

Driving examiners are strict and check 63 points during each test.

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