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Picture Credits:

The Cover Story
Illustrations on both covers and for the story A Heritage for Canadians starting on page two are all from the C. W. Jefferys Historical Collection which has been sponsored by Imperial Oil to help inject the chief work of Canada's greatest artist-historian. On the front cover Samuel Champlain is shown using an astrolabe during the exploration of the Ottawa River in 1613. The back cover pictures are examples of the way in which the late Dr. Jefferys sketched the day-by-day activities of the past. The artist was interested not only in the dramatic events of Canadian history but also in the ordinary customs, habits and occupations of the pioneers. William Colgate, who wrote the story, was a close friend of Dr. Jefferys and assisted him in preparing the material for the books that became The Picture Gallery of Canadian History. Mr. Colgate is the author of Canadian Art.

About That Canadian Dollar
The recent strength of Canada's currency has caused a good deal of satisfaction in this country. Canadians have been making such comments as "The U.S. has the world's fastest ship and Britain the first jet air liner, but we've got the best dollar!"

Such remarks are a human reaction after the years in which Canadian travellers often had to bear because of the discount on their money. The bringing will soon stop not only because we all realize that the tourist business and friendly relations with our neighbors are very important but also because the changed position brings new problems.

On the other hand, there is very good reason for some quiet satisfaction. For the time being, at least, we have the world's most desirable currency and this has been widely and rightly greeted as a symbol of growing strength, of Canada's "industrial coming-of-age."

Canada's dollar is strong because, as Time magazine said recently, behind it is a "swelling flood of foodstuffs, metals, oils, newspapers and goods flowing from her fields, forests, mines and factories." And behind the flood has been the willingness of people here and elsewhere in the world to invest in Canada's future.

The oil industry has been responsible for some of the improvement in the Canadian dollar situation. Before 1947, 90 per cent. of the oil we used had to be imported and paid for from our relatively small fund of U.S. currency. But since oil began to pour from the new Alberta oil fields, the percentage of our petroleum imports has dropped steadily with an estimated total saving of $346 million American dollars in the three years of 1949, 1950 and 1951. This year the saving is expected to be $165 million.

In other words, because Canadian oil has taken the place of a large part of the oil that would have had to be imported, a substantial supply of American dollars has been act free with which Canada can buy increased quantities of such things as oranges, fresh vegetables in winter, steel, machinery and other things she needs from abroad.

The oil development has contributed to—and to some extent has spearheaded—the current general prosperity in Canada. New ships, new pipe lines, new refineries and other new equipment have been needed and their building has given work to many Canadians. It has been a dramatic development, a boom, which has attracted world-wide attention.

The development is continuing full speed ahead. The exploration program in the west is the greatest in the country's history. The Trans Mountain pipe line is being pushed to the Pacific coast and its initial capacity, originally planned at 75,000 barrels a day, will now be 130,000 barrels a day. Refining capacity is being increased. Major steps are being taken in petroleum's related industries: gas pipe lines are being built, petrochemical factories are rising.

In short, the oil industry is at another peak this year and its activities are one good reason why the Canadian dollar is in so sound a position.
A Heritage for Canadians

by William Colgate

Vernons to the recent C. W. Jeffreys Memorial Exhibition in Toronto and London must have been astonished at the size of the collection and the wide diversity of the subjects shown. The exhibition was arranged by the Ontario Society of Artists as a tribute to the man generally acknowledged as Canada's greatest historical artist.

The work on view represented the effort of a busy lifetime. The drawings and paintings revealed the artist not only as a draughtsman of remarkable attainments, probably the most distinguished this country has ever seen, but as a highly gifted landscape painter and watercolorist as well.

Selections from the Jeffreys Historical Collection formed a major part of the exhibition. Four centuries of Canadian life were depicted: from John Cabot's discovery of Newfoundland to scenes at Petauau Camp during the first World War. Other pictures, on loan from public and private collections across Canada, ranged widely in extent and variety, from courtroom sketches to an experiment in abstract expression inspired by Richard Strauss' Death and Transfiguration.

The working life of Charles William Jeffreys spanned 60 years. They were not years of ease, but often lean years, though on the whole good years and fruitful. He was born on August 25, 1889, in Rochester, Kent, England, a son of Charles T. Jeffreys and of Ellen Kennard, both of old Kentish families. His father was a builder who emigrated with his family to Philadelphia in 1877. Within a couple of years he moved to Hamilton, Ont., and thence in 1891 to Toronto.

It was a time when science was beginning its gradual ascendancy over our industrial, social and domestic way of life. The telephone, precursor of radio and television, was still a novelty and a luxury. Households swayed nervously over an uneven roadbed, gas lamps feebly illuminated the streets at dusk, and the top hat was still a badge of respectability. Ten hours was the working day; announcements were few, and such as there were offered no serious temptation from study.

In many ways the time was more propitious for the earnest and ambitious youth than now, though it afforded an artistically-inclined lad less opportunity to work in the field he favored. This unpromising outlook was soon to be corrected by the introduction of process engraving accompanied by the phenomenal growth of the printing industry, advertising, and the illustrated magazine and newspaper.

These were the conditions in Toronto of the 'eighties to which Charles Jeffreys came with his parents as a boy of 11. At the time the inhabitants of the city numbered 77,371; he was to see his adopted city grow tenfold.

Young Jeffreys gained his early education, about all the formal training he was to have—at the Lord Dufferin public school in Cobblestone, a district in the east and then mostly populated by Irish. He was not conspicuous as a scholar but his blackboard drawings brought him a certain popularity, relaxed him of the drudgery of studying lessons he disliked, and supplied him with a chance to use his facile chalks.

In the eighties and nineties the school history books did little to attract the pupil. Young Jeffreys chafed at the dull presentation of a subject he really liked. He wondered if there were not some way by which history could be made more palatable.

Every then he had found one of the answers. Wherever closing exercises and the life called for the decoration of the schoolroom, Jeffreys was invited to show his skill on the blackboard. Colored drawings of the Landing of Julius Caesar, the Battle of Queenston Heights, or Wolfe at Quebec were among his favorite subjects.

His schoolmates coaxed him to illustrate their books. He established a fixed scale of prices: an English history was two cents; a Canadian, one cent. His masterpiece was a solitary illustrated algebra. Because it was a subject he detested, he exacted five cents.

Schooldays over, Jeffreys became apprenticed to a lithographer. He spent much of his time surreptitiously drawing illustrations for the books of history and fiction and poetry which he sat up all hours to read. In his files are still preserved some of these juvenile compositions, scrawled on minute pieces of paper which could be slipped out of sight under the drawing board when the foreman came round.

The fledgling apprentice soon wearied of designing labels for tomato canes, lettering showcards and making mechanical drawings of factories and warehouses for letterheads and calendars. He went to New York and

Martyrdon of Brübeck and Lament, 1649

C.W. Jeffreys, C.S.A., R.C.A., LL.D
A Frontier Trader's Store, about 1780

Jefferys got a job on the *Herald* where he accompanied the city ambulance on its rounds and also covered major assignments.

"We were then in the depression of the early nineties," Jefferys once said, "and the daily and Sunday newspaper was almost the only field open to a young man trying to earn a living by his pen, and to get a foothold in illustration. And before long it dawned on me that here was the very best training for the job I wanted to do."

"I realized that yesterday was as alive as today, and that the accurate and intensive observation of how people acted now and here was the very best way to understand how they acted in the past. It was a simple lesson; but for me it was almost a revelation; and thenceforth in imagination, if not in execution, my dead men and women were no longer dead."

During his absence in New York, Jefferys continued to send drawings to the annual calendar issued by the Toronto Art Students' League which during its lifetime from 1886 to 1904 offered practical encouragement to young artists then living in Toronto. C. M. Manly, Fred Briginet, Robert Holmes, J. D. Kelly and F. S. Challenger were members, as were David Thomson and Tom Green. All or nearly all contributed illustrations and decorative designs. Quotations from the poetry of Bliss Carman, Archibald Lampman, Isabella Valancy Crawford, Charles G. D. Roberts and others furnished appropriate themes.

In 1900 on the death of his wife, Joan Adams, her self-taught artist, Jefferys left his home in New Jersey and returned to Toronto. In 1908 he married Clara A. B. West of Winnipeg. Settled again in his home city, at first he found the going hard. He had to turn his hand to all sorts of work—magazine, newspaper and book illustration, pictorial publicity and mural decoration. Now and again he wrote historical articles for the reviews. This diversity of occupation, though it involved scattered energies, gave him a wide experience of aesthetic problems and their solutions.

Underneath all the business of making a living, how ever, lay a constant desire to know Canada. He journeyed throughout Ontario, Quebec, the Maritimes and the Prairies studying their characteristic features and their historical background. Nothing was too slight for close, critical examination, from an old Indian hutched head to the construction of an ancient flour mill or a baroque church.

He spent much time in the study of the early explorers and their discoveries, of the pioneer life of the country and the history, customs and ritualistic practices of the Indian tribes. All furnished material in one form or another for his ardent questing spirit and graphic pen. Sketching and note-taking, Jefferys got to know "the feel" of a site or community which later visits made more intimate and definite.

From his training in New York, grew his passion for accuracy in print and paint. Tireless in the search for historical truth, he would not rest until he had exhausted all possible sources of knowledge. He once brought an ancient volume on firearms from Holland at a cost of $300 so he could draw the muskets of Champlain and his men correctly. Although his studio at York Mills in suburban Toronto contained shelves of historical works, both old and modern, French and English, he was from early days a steady patron of the public library to which he frequently reverted for research.

His wide knowledge and versatility made him. among other things, an illustrator of great resource. To his invention, his creative imagination, and his amazing versatility with pen and brush the *Chronicles of Canada*, the *Makers of Canada*, the *Pageant of America*, the *Chronicles of America*, the *Old Man Summer stories* and The* Golden Door* owe much of their enduring fascination, as do indeed books written and illustrated by himself: *Dramatic Events in Canada's History*, and Canada's Post in Pictures, now out of print; and the Picture Gallery of Canadian History done in collaboration with T. W. McLean. The Picture Gallery was in three volumes published by the Ryerson Press of Toronto in 1942, 1945 and 1949.

For a projected volume on Sam Shir, the classic visits made more intimate and definite.

Of early Canadian humour by Thomas Chandler Halibur ton, he drew more than 100 illustrations, but the untimely death of the publisher, Robert Glasgow of Glasgow, Israel and Company, caused the book to be laid aside indefinitely.

Jefferys least regretted that the Haliburton drawings were not published for he had put into them some of his best pen work. Similarly, though to an lesser degree, he regretted that his editorial annotations to *Haliburton's* writings must remain in obscurity, since he had brought to light much curious, unfamiliar and interesting literary, social and political gossip of the times.

Because of his scholarship no less than his competi tion as an artist, Charles Jefferys was commission ed to paint Canadian historical murals for the Manoir Richelieu at Murray Bay, the Chatham Lancing at Ottawa and the Royal Ontario Museum, Toronto. In each design the subject matter was drawn from local history.

When the Dominion government in 1938 undertook to reconstruct the Halibut House which Champlain had built in 1603 on the shores of Annapolis Basin, Nova Scotia, it engaged Jefferys as the consultant to supply details of buildings, furnaces, furniture, implements and tools of various kinds, and structural hardware. Among other things, he drew several sketches of life as it was known to exist in the Habita-
tion. These pictures now hang on the walls of the reconstructed building.

He also designed and made working drawings for the Memorial Arch at Niagara Falls, Ont., modelled by Emanuel Hahn, R.C.A. The Jubilee Medal commemorating the 50th anniversary of Confederation in 1917 and the J. B. Tyrrell Medal awarded by the Royal Society of Canada for outstanding achievement in history were made from Jefferys designs. His Prancing of Halifax was reproduced on the Canadian four-cent stamp issue in 1949 to mark the bicentenary of the city.

His canvases have been shown in New York, Boston and Philadelphia as well as in the principal galleries of England, Scotland and Canada. He is represented in the permanent collection of the National Gallery, Ottawa; the University of Toronto; the Art Gallery of Toronto; Queen’s University, Kingston; the Royal Ontario Museum, Toronto; the Provincial Government of Ontario; the City Hall, Toronto; and in private and public collections throughout Canada and abroad.

His published writings—articles, books and papers—nos less than his lectures make plain his mastery of a graceful and limpid prose. His descriptive and expository essays have great charm and, pointed by a gentle irony and humor, are models of clear and idiomatic expression. His use of English was marked by the same precision and felicity as distinguished his handling of the pencil and the brush.

From the Picture Gallery of Canadian History the student may acquire a clear and comprehensive knowledge of Canadian art and its past—social, industrial, educational, political and religious—from the days of discovery and settlement until the present. Artists and scholars find the volumes authentic references.

The pageantry of the past is here—vital, moving and filled with color. Across the pages of his books troop the early explorers, the black-robed missionaries, the fur traders surging restlessly forward by canoe and log-train, warriors in arms, first with the golden lilies of France and then the Union Jack; then peace with settled community life and the legislator. The personalities of the past appear—Calvert, Cartier, Champlain, Maisonneuve, Marquette and Joliet, La Salle and the brothers Vérendrye, Montcalm and Wolfe, Laura Secord, Mackenzie and Papineau, Haliburton and Joseph Howe—a radiant, stately and often noble cavalcade.

Here too is the sweeping panorama of forest, lake, farm and plain, the ceaseless, restless inundation of people spreading and filling the empty places, and virgin soil under sunny skies bringing forth the fruits of the earth. The settler’s cabin, the woodman’s axe, the trader’s canoe and the sprawling lumber mill, beside the grinding mill beside the rural pond, the forge fashioning the rude implements and tools of the pioneer, the horsepower of primitive village industry, the slow motion of ox cart and horse and plow are milestones along the road which we journey in our reading. The whole pageant of Canadian life for three centuries since cultivation and tillage began, forms the substance and appeal of Charles Jefferys’ pencil.

For several years Jefferys taught drawing and illustration at the Ontario College of Art and was instructor from 1912 to 1929 in the department of architecture of the University of Toronto. He was councillor of the Royal Canadian Academy of Arts; a member and president from 1913 to 1919 of the Ontario Society of Artists; a founder member and president from 1929 to 1941 of the Canadian Society of Painters in Watercolour; an honorary life member and president, 1942 to 1943, of the Ontario Historical Society; a founder member and president, 1926 to 1929, of the Art and Letters Club, Toronto; a founder member of the Canadian Authors Association, and council member of the Champlain Society as an honorary life member of the Faculty Union of the University of Toronto. He was also a member and president, 1903-1941, of the Canadian Society of Graphic Arts; and during the lifetime of the Toronto Art Students’ League, 1886-1904, he was an active member of that body and a regular contributor to its annual calendar.

For his services to Canadian history and the fine arts, Queen’s University in 1931 conferred on him the honorary degree of Doctor of Laws. The Turtle Clan of the Miowiskits of the Six Nations near Brantford adopted in 1943 as honorary chief with the appropriate name of Gaa-wen-ga-yoon, meaning Historical Wards. He rightly valued this distinction since it brought him into closer relationship, as he said, with an ancient and distinguished society to whose history and traditions in the course of long years of research he had given patient and sympathetic study.

In 1950 Imperial Oil learned that Dr. Jefferys’ historical drawings and paintings could be formed into a permanent collection. It was felt that such a collection should be regarded as a public trust to be safeguarded and made generally available to the people of Canada. Dr. Jefferys gave his ready consent. After he died in October of last year, the final details of the transfer were concluded with the Jefferys Estate. The collection was assembled this spring when the executive committee of the Ontario Society of Artists decided that it should form part of their 80th anniversary exhibition as the C. W. Jefferys Memorial Exhibition.

Displaying first at the Art Gallery of Toronto, the collection was later shown: 1. The Ebbie Perrin Williams-

Memorial Art Museum in the London Public Library.

It is expected that this historical collection will be shown eventually in the principal cities of Canada with visits at intervals to smaller centres affording suitable accommodation. Plans are being carefully considered for permanent quarters for the collection in one of the Canadian art galleries or museums where it will be sorted and made available for use when it is not travelling on loan.

In the meantime, the collection consisting of more than 1000 historical drawings and paintings with a large amount of Dr. Jefferys’ source material, his drafts, personal notes, thumbnail sketches, scrapbooks and files, is being classified for use by students and researchers in Canadian history. Each drawing and painting will be catalogued, photographed and indexed so that items from the collection may be made freely available to Canadian schools, colleges, libraries and publications.

It is still too early to assess in full the stature of Charles Jefferys as an artist and historian. The years alone can bring a true perspective and a fairer judgment. This much, however, may be said: if ever a craftsman born to lonely surroundings overcame the handicaps of environment and lack of early opportunity, Jefferys was that man. With his skill and energy, he encouraged others by his example. A fresh, untired path led him to a fame which has promise of permanence.
In 1951 the nine Imperial refineries processed 66,752,351 barrels of crude oil.

A RECORD
for the record

Imperial refineries are now processing more crude oil than ever. And more than half of that crude comes from Canadian fields.

Only six years ago, Canadian wells supplied less than one-tenth of Imperial's much smaller refinery runs.

These facts underline the growth of the Canadian oil industry since the discovery of Leduc in 1947. That growth is shown in Imperial's annual report for 1951 and was the theme of John R. White, executive vice-president, when he moved adoption of the report at the Company's 72nd annual meeting.

"Who then (in 1947) might have ventured the prediction that in less than five years prairie crude would be supplying not only Regina but all other refinery points on the western plains? Or thought of Alberta crude flowing on beyond Regina to the lakeshore and then down the lakes to Sarnia, where it now displaces nearly 75 per cent. of the imported U.S. crude formerly run there?" Mr. White asked.

This year's annual meeting was in Toronto, a departure from the custom of holding them at head office in Sarnia. President G. L. Stewart, who presided, explained the change was made to accommodate the approximately 6,000 shareholders in the Toronto area.

Mr. Stewart noted that of some 38,000 registered shareholders, 31,000 are in Canada and two-thirds of these Canadians have held their shares for more than 10 years.

Imperial's 1951 report showed new peaks were reached in sales, in the production of Canadian crude oil, in the manufacture of products, in net earnings and in investments for the future.

Here is how the report noted Company growth:

Sales—Last year the sale of Imperial products reached a new peak of 21½ billion gallons, an increase of 13 per cent. over 1950. This was nearly twice the sales in 1946.

Refining—The manufacture of oil products in Company refineries jumped by eight per cent. during the year; 66,752,351 barrels were processed. The new Winnipeg refinery, Imperial's ninth, went on stream in the summer. In the nine refineries the average daily run was 182,022 barrels. Five years earlier this total had been 110,700.

Production—Imperial wells produced 22,668,763 barrels of Alberta crude oil last year, an increase of 69 per cent. over 1950 when just under 13 million barrels were produced. In 1946 Imperial's total production of Alberta crude was 224,000 barrels.

1951 product sales set a new record of 2,512,000,000 gallons

1951 capital expenditures were $57,700,751

1951 expenditures for exploration and development in Alberta were $40,500,000

Illustrations for this story are from Imperial Oil Ltd. Annual Report—1951.
A pipe line to carry products from Sarnia refinery to London, Hamilton, and Toronto was begun.

This year's investments include modernization and expansion of the new refinery at Sarnia and modification of Regina refinery.

To keep pace with future growth, Imperial is pushing the western oil fields. The Company in 1931 increased its western land holdings under lease, reservation and option, from 21 million to 25 million acres. The added acreage was in northern Alberta, the Northwest Territories and British Columbia, as well as selected lands in central Alberta and in Saskatchewan and Manitoba. Two new district exploration organizations were set up at Edmonton and Peace River, under the jurisdiction of the division offices at Calgary. A third district exploration office, established in 1930, is located in Regina.

Exploration drilling was expanded substantially over 1930, and an increased number of seismic crews were placed in the field. At the same time the Company continued its geological work and airborne magnetometer surveys.

The increased tempo of exploration drilling brought two new Imperial discoveries—at Strangford, a few miles northeast of Edmonton, and at Belloy in the Peace River area. Seven natural gas discoveries—in commercial quantities—were made.

Referring to the increase in land holdings and development of existing producing areas, Mr. White said: "We can reasonably expect in time to produce at least the equivalent of our refineries' crude oil requirements." He declared that while it would be optimistic to expect the same rate of expansion in the next five years as has taken place in the past five, the Company can "expect still further expansion in all of its affiliate refineries." "The demands for our products and services will continue to reflect the rising living standards and Canada's growing needs for basic energy," Mr. White said.

Executive Changes

F. C. Mechlin Retires

F. C. Mechlin MBE, a director since 1945, has retired from Imperial. He joined the Company in 1916 at Montreal as an engineer to assist in construction of the refinery which he later was to supervise for 21 years.

Born in Clarenont, Ont., Mr. Mechlin entered the class of engineering and applied science at the University of Toronto in 1910, graduating with honors four years later.

During World War I, he served overseas with the British Admiralty as a civil engineer working on oil pipe lines. On his return to Canada, he went to Halifax for the reconstruction of the refinery, and then to Montreal. In 1923 he was superintendent, and during World War II, he was a director of the Department of Munitions and Supply and as manager of the entire petroleum industry. For these services he was made a member of the Order of the British Empire. In 1944, Mr. Mechlin moved to Toronto as assistant to the president on employee relations. The next year he was elected a director.

John W. Hamilton Elected a Director

At the Company's annual meeting this spring, J. W. Hamilton, Q.C., was elected a director. He has been associated with the Company's law department since 1938.

A native of Pictou, Ont., Mr. Hamilton received his early education there and then attended Royal Military College at Kingston. Upon graduation he attended Osgoode Hall and was admitted to the bar in 1937. After a year in private practice, he joined Imperial as an assistant solicitor.

When World War II broke out, Mr. Hamilton enlisted in the Royal Canadian Navy. He saw service in the Atlantic, the West Indies and the Mediterranean as a gunnery officer. As a lieutenant-commander, he also was staff gunnery officer on naval headquarters in Ottawa.

Upon discharge in December, 1944, Mr. Hamilton returned to the Company as solicitor. In 1948 he became manager of the law department and two years later was appointed Imperial's general counsel.

J. K. Jamieson Becomes a Director

J. K. Jamieson, formerly assistant general manager of the manufacturing department, is to be a director at the annual meeting. Originally from Medicine Hat, Alta., he attended the University of Alberta before enrolling at the Massachusetts Institute of Technology. He graduated from the latter with a bachelor of science degree and then returned to Alberta to work in the oil industry. His first position was with the Northwest Stillsnes Co. of Coaldale, Alta.

For two years during World War II, Mr. Jamieson served with the federal oil controller. After the war, he joined Imperial's coordination and economics department. In 1949 he was transferred to Sarnia to head the engineering and development division of the manufacturing department and the following year was appointed assistant general manager of that department. Mr. Jamieson assisted the Department of Defence Production to form its petroleum division in 1951.
Pete Duncan's Tall Tales and Tankers

The man who designed Imperial's Leduc-class tankers, the largest freshwater oil ships in the world, is a Clyde-side-trained Scotsman full of wit and humor.

Peter Duncan has been present at the trials of many new ships over the years but the one he still remembers best is that first test of the stern-wheeler on the Clyde side.

Everything had gone without a hitch until the order “Full speed astern.” The gear was thrown astern— but the ship plunged “Full ahead” up the mudbank.

“Probably the only time a ship has gone ahead when geared to go astern,” said Pete recently, viewing the incident with more detachment after 40 years.

“It never happened again with the little ship. The tide may have been extra heavy and forced itself and the wash from the wheel against the splash bulkhead forward of the paddles. Maybe you could say it was jet propulsion before its time. But I didn’t think of it like that. I just wanted to crawl up on that mudbank along with the ship.”

He grinned and continued: “You could say that’s how I started climbing the ladder of success; wrong by wrong.”

It is a matter of great debate among his friends whether Pete will be remembered most for the ships he designed or for his puns, his anecdotes and epigrams. His humor touches on all aspects of life, not excepting of course, his national origin. For example: (when picking up the tab at a luncheon) “It’s hell to be a Scotsman. You’ve got to spend twice as much as any other body before you’re considered a good sport.”

He likes to poke fun at over-contructed order and
professionals: "An engineer is a man, who when asked 'What is two times two?' picks up his slide rule and says 'About four'."

His quietly flow from a long, mobile mouth in an accent that leaves no doubt as to his birthplace. Despite 39 years in North America his R's still roll like a sailor on a Saturday night liberty in a strange port.

Pete enjoys life and people. And people enjoy life with Pete Duncan—his friends are legion. He is a paradox of spirited extroversion (at his best as a luncheon companion or after dinner speaker) and inhibited modesty (at his worst when being interviewed.)

His heavy features, topped by sleek, dark, but greying hair, his short, stocky frame, and Harry Lauderish humor are known in most places in Canada where sailors meet or ships are talked and built. The respect and esteem in which he is held by shipbuilders resulted in a thunderous ovation for him on the day the Imperial Woodfend was launched last December. Imperial's president, G. L. Stewart referred to Pete's pending retirement and expounded the Company's pride in the Duncan-designed ships and in his career crowned with the now internationally known Leduc class tankers.

Peter Melbourne (for an uncle who emigrated to Australia) Duncan was born in Pinhey, Scotland on December 28, 1886. Though his home was only three miles from the Clyde his family had no shipbuilding or seafaring tradition. His father was Pinhey's police chief for 25 years.

"When you're around the Clyde you see ships all the time and get a great notion towards ships. I heard so much from fellows fed up with sailing the ships that I thought I'd like to try and build them instead. There's more of a thrill to building than sailing them," is his explanation of his choice of a life's work.

So Pete became an apprentice in the Clyde-side shipyards. As he worked there by day, he studied at night at Glasgow's Royal Technical College, seven miles away, and despite the engine of the grounded sternwheeler, Pete eventually found himself a qualified naval architect.

For a few years, until 1913, Pete Duncan continued to work in the Clyde yards. Spring came and "as it was still raining in Scotland" he decided to sail for America.

Within a short time of landing he was employed by the scientific department of Newport News Shipbuilding and Drydock Company. There he helped to design tankers as well as cargo and passenger ships. Among the latter were several of the well-known Pacific coast cargo-passenger fleet of the Matson Line. Later, for three years, he was an inspector of vessels at Seattle and Buffalo for Lloyd's Register of Shipping.

A stint with the Bethlehem Shipbuilding Co., in Baltimore followed. While in Baltimore he was instructor in naval architecture and shipbuilding at the Maryland Technical College.

The year he joined Imperial, 1906, Pete was working with the 5am Shipbuilding Co., at Chester, Pa. He assisted in the design and construction of tankers for the parent company, the Sun Oil.

The 25 years that followed with Imperial was a period in which Pete's experience grew with the size of the Company's fleet. Of the Company's present fleet of 29 tankers, 13 were built from Duncan designs.

In addition to the tankers, Pete designed barges and other lesser vessels for Imperial—more of them than he cares to remember.

Early in his career with the Company, Pete was asked to design four stern-wheelers for an Imperial affiliate. The ships were to be used in operations on the Magdalena river in Colombia and were to be 200 feet long but with a draft of only three feet.

Then Pete was asked to design a floating dry dock for the Magdalena.

Floating dry docks are tricky things to build at any time, but the Magdalena added a few problems not usually encountered. The Colombian river is shallow and has a fast current. Even with continuous dredging the maximum depth at the repair site is only 16 feet. Pete had to design a floating dry dock capable of submerging deep enough at the berth so that the ships could safely enter the dock basin for repairs.

Over the years Pete was faced with a wide assortment of construction problems but the most frequent were those concerned with the special requirements of oil-carrying ships, culminating in all the many details involved in planning the Leduc class tanker.

In the case of the Leduc what was wanted was a ship to carry 115,000 barrels of oil on a 24-foot draft at a speed of about 16 miles per hour. It had to handle well in restricted waters, such as the St. Mary river and the Soo locks.

It had to be capable of being built in certain yards (Imperial was determined to have the ship built in Canada) and therefore its beam could not exceed 66 feet—the maximum the yards at Port Arthur and Collingwood would permit.

The nearest approach to such a tanker was the Imperial Sarina, built in 1948. It has a capacity of 56,000 barrels and an overall length of 380 feet. The Leduc was to have double the capacity and consequently be much larger in size; yet the difference in draft was to be not more than two feet.

Pete embarked on a series of "trial and error" calculations and rough sketches as he balanced out length, depth and width of the new ship. When he finished, his Leduc was to be 600 feet long, 68 feet wide and ride at 24 feet when loaded with 115,000 barrels of crude oil.

The next task was to transfer the ship in scaled detail to a drawing board. The steam-turbine engine power needed to drive it at 16 m.p.h. had to be calculated and construction materials determined.
Three months later, the design complete—meeting all the safeguards laid down by the Canadian Steamship Inspection Service, Lloyd's Register, and the International Safety at Sea Committee—the Leduc blueprints were sent to the Hydrodynamics Department of the Stevens Institute of Technology at Hoboken, New Jersey, for model trials. Stevens Institute is a testing ground for the U.S. Navy and many commercial yards.

Research engineers at the Institute built a scale model—not the type you'd give Junior for the bath, it was 13 feet long—and subjected it to exhaustive tests. It was pounded by artificially induced high seas, winds and storms. Models are usually made of wood—though sometimes wax is used—and are weighted to scale with lead.

It is a matter of pride with Pete Duncan that not one alteration of the Leduc was suggested by the Institute.

He justifiably regards the Leduc and her sister ships, the Resolute and Woodwind, as the highlights of his tanker designing career. They are his "master" vessels: the most expensive to build (about $4 million each), the most economical to operate, the most efficient, the fastest and the largest. "Their efficiency and performance say a lot for the shipyards," said Pete, modestly.

There was only one break in Pete's 25-year career with Imperial. During World War II he was loaned to the government for three years, devoting his talents to production of war craft and tankers.

Through it all, peace and war, Pete Duncan has manifested along full of a seemingly inexhaustible supply of energy and smiling bonhomies. His physical appearance—it knocks at least 10 years off his recorded 65—and energy are a walking endorsement for "a laugh a day keeps the doctor away."

A typical daily defence against the doctor: "Scots are renowned for the accuracy of their rifle fire (at least in Scotland). One Scottish regiment received a recruit who couldn't hit the target when on the ranges. Finally the company major came up and bowed:"

"MacPherson, where in blazes are your bullets going at all?"

"MacPherson glanced up and said: 'I don't know myself. Major, but they're leaving here all right.'"

Pete, who would give his shirt away to a panhandler, loves to make capital out of the traditional—and erroneous—myth of Scotch stinginess. He was once heard to remark that he had never quite forgiven his wife for not having been born in Canada. He could have saved her fare over. However, they have a son born in Canada, presently studying civil engineering at the University of Toronto.

As Pete began to approach retirement age with Imperial, his restless energy and love of ships would not let him leave shipbuilding and influenced his plans for the future. When he left the Company last December, he started a new designing career as a naval architect.

So if any time you're down around Toronto's Queen's Quay and see a short, stocky Scotsman bending along with a smile on his face—that'll be Pete Duncan.

And if you stop him, one will get you two, that his first question will be:

"Did ye hear the one about . . . ?"

The radioactive "pig" used in the search in Imperial's new pipe line near London, Ont. An isotope was placed in its tail.

The Quest of the ATOMIC PIG

Aimed the tail of an ungainly metal "pig", atomic energy got into the pipe line business near London, Ont., on a dark and cloudy night this spring. It was used to search for a lost object in a hunt just as difficult as the old problem of finding the needle in the haystack.

Early, flashlight beams were on the night as small vial of cobalt-60, a radio-active isotope made at Canada's nuclear fission pile at Chalk River, Ont., was taken from its 200-pound lead casket. The vial, about the size of a .30 bullet, was gingerly sealed in the tail of the pig. A pig is a metal and rubber spool about the diameter of the pipe which is forced through a line by liquid or air pressure to scrape away obstructions.

The scene was Oxbow Creek, 13 miles west of London on the Sarnia-London section of Imperial's new products line. The pipe line company which was building the line for Imperial from Sarnia to Hamilton and Toronto was faced with a dilemma.

Stocked somewhere in the line between Oxbow Creek and London was another pig. It had stalled during tests on the finished section of the line and now lay silent and motionless somewhere three feet underground in the 13 miles of pipe ahead. No one knew where it was.

Over the previous nine days, stuck pigs had become a familiar story to the contractors. This was the third time they had faced the problem. Twice previously a pig had been stuck; twice it had been located with difficulty; and twice laboriously rescued by cutting into the pipe.
The pig stuck now had been dispatched from Oxbow Creek four days before. To its rear had been tied a steel chain to serve as a tail, and to the tail was attached a cowbell. Its passage through the line was to be marked by clanging as its tail switched.

But no bell was ringing in the line. It was as silent as a grave. The pig, complete with tail and cowbell, was lost.

To counteract this porcine revolt, the pipeliners decided to obtain a radio-active isotope and insert it in the tail of still another pig. They would be able to mark the progress of the radio-active pig through the line by means of geiger counters and a scintillometer which would register gamma rays emanating from the isotope. When the treated pig stopped it would be behind the stuck pig.

An appeal was made to Eldorado Mining and Refining Ltd., a government organization which controls Canada's radio-active isotope supplies. Eldorado agreed to send the cobalt 60. Officials made a rush trip by car and plane from Ottawa and within an hour of their arrival at London, operation pig hunt began.

As the atomic pig was prepared the scene was illuminated by sudden splashes of light as newspaper photographers recorded the hunt.

Air pressure in the line was built up and the pig moved off. Scintillometer needles flickered, and geiger counters clicked like castanets. Scientists, pipeliners and newspapermen took off into the dark like a pack of hounds hot on the scent of a fleeing fox.

Confident of success, quips passed to and fro between the pipeliners. But mud, cold, a bleak wind and slapping branches took their toll of good fellowship and soon little was heard except the soft sucking of mud as it released trapped boots, and the unseemly words addressed to branches and small bushes that seemed to reach out to snug clothing.

Until four the next morn the pig, gliding swiftly underground, led the party on. At that hour the chase adjourned to allow the huntsmen time to sleep. At eight a.m., refreshed by three hours in bed, they resumed the chase.

Gradually, the pig began to lose speed. As it approached the Thames river crossing it was slowing to an obvious degree. A silent prayer followed it: "Please don't stop under the river!" For what seemed an eternity, but in reality was only about 20 minutes the pig coasted along in the pipe under the water. Its advent under the opposite bank was greeted with a demonstration of affection usually only accorded to athletes parading down Broadway.

As the travelling pig was coasting along it was closing the gap between it and the stuck pig. At the same time it was building up pressure ahead of it. Suddenly spotters ahead of the main party heard a sound they had missed for some days: the unmusical clanging of a cowbell beneath their feet. The pressure in front of the moving pig had been sufficient to start the stuck pig on its way.

One spotter dashed back: "They both took off like a couple of express trains back there. They must have been travelling at about 60 miles an hour at one stretch."

Grins and handshakes all round. The problem was solved; time off for lunch, satisfied that both pigs were now heading for the terminal like homing pigeons with a bag of corn in sight.

Back from lunch came the hunters to meet a deconsolate bunch of pipeliners gathered around a valve commiserating with one another like a bunch of odd-on hackers watching the outsider ramp home.

Words were not needed. Silently a pipeliner pointed and nodded his head to the query, "Stuck?" Then he added: "The second pig." A newspaperman's quip, "This shouldn't happen to a dog let alone a pig," did not receive the applause he expected.

A quick closing and opening of the valve changed the pressure enough to dislodge the pig. It cruised lastly along, then stuck again for lack of air pressure.

The dormant pigs were now almost within reach of the terminal. Valves in front and behind their beloved locations were closed. Pressure was built up to 100 pounds.

On a signal all valves were opened.

Both pigs took off with a rush like jet planes. They covered the remaining 3½ miles to the terminal in six minutes—a little under 30 miles an hour.

Pipeliners gathered at the terminal had fair warning of the arrival of the first pig. Its cowbell was clanging like a dairy herd in stampede. It boomed out of the line and hurtled 60 feet.

Almost before it had landed there was an explosive "whoosh!" and the second pig left the line, soared like a kite to a height of about 50 feet, levelled off, barged into a crane boom leaving a large dent to mark its progress, ripped through a fence, then ricocheted off a stand of piping to end its 200-yard flight nose down in the dirt.

Still securely bedded in its tail was the cobalt 60, none the worse for its rather hectic ride. It was returned to its leader bed and then to Ottawa with a note: "Mission accomplished".

The scintillometer and geiger counter were used to detect gamma rays from the atomic pig.
The Canada Road

The Trans-Canada Highway is a 40-year dream that is now coming true.

How you'll drive our 5,100-mile coast-to-coast Main Street

Bob Ripley of “Believe It or Not!” fame, prominent soldier after the odd and fantastic, wrote a quasi-fictional letter some years ago to the Ontario Motor League. Was it really true, Ripley asked, that there was no road across Canada?

The answer was difficult to give. It was year 1952—yes, it was true we had no national highway as such; no, it was possible to drive from coast to coast on provincial roads that linked together, but only a small fraction of the distance was paved and many of the gravelled miles made rough going for the motorist.

A particularly bad section was that around the north shore of Lake Superior.

Today, an answer to Ripley’s question would have a more positive rate, or, at least this postscript: the federal government and nine of the 10 provinces are now actively at work on a uniform, co-operative project linking up and improving provincial highways and adding new mileage for a trans-Canada highway.

Quebec, the non-participating province, will be an unofficial link in the national road.

Within six or seven years Canada will have a scenic 5,100-mile Main Street, two lanes wide, hard-surfaced and running, with interests of ferries, from the island of Newfoundland in the Atlantic to Vancouver Island in the Pacific. The cost: about $100 million shared fifty-fifty by the national and provincial governments.

The cross-country motorist on the Trans-Canada will see a range of scenery unmatched by any other highway in the world. Between the eastern terminal at St. John’s, N.B., and the western at Victoria, B.C., is a whole continent, lakes, islands, rivers and coast—coast; the lovely north and busy cities; forests and farms; broad prairies and towering mountains.

The green light for this cross-country artery came almost 40 years ago from the Provincial highway associations, public officials, citizen groups, and hard-working individuals. It came in 1910 as Canada’s car and truck population totalled two million and her touring visitors from the U.S. increased to ten million.

Since the formation of the Canadian Highway Association in 1910, with the sole purpose of promoting the big road, the highway’s ardent proponents have seen their hopes rise and fall as two world wars, public apathy and other obstacles interposed. This first organized group held two annual conventions but failed to make headway and disbanded. This failure, however, did not prevent eager road promoters in 1912 from planting the “first post” of the dreamed-of highway at Alberni on the west coast of Vancouver Island.

Some other organizations sprang up to campaign for this highway. The Canadian Automobile Association held its first meeting in December, 1912, in Toronto; the Canadian and International Good Roads Congress met for the first time the following year, in Montreal. Both sought, among other things, to obtain a national highway grant from parliament for the provinces and to persuade the provincial governments to act in unison.

An early official endorsement of the Trans-Canada Highway plan came from the Hon. Robert Borden, Federal Minister of Public Works, in 1919 when he held a delegation from the C.A.A., the Automobile Club of Canada and the Canadian Good Roads Association that he would advocate the project in parliament.

Despite the fact that World War I called a temporary halt to the campaign and post-war public demand lay chiefly in market and suburban roads, steady pressure by the cross-country road enthusiasts resulted in federal action.

Parliament voted $20 million in 1919 (Canadian Highway Act) to aid the provinces in highway improvement, looking toward the national road. The provinces were asked to submit a program map of their main and market roads, as connected as to form a system of provincial boundaries and trans-provincial routes in the system of Canadian highways. When the maps came in, they formed a

At Herkland, New Brunswick, motorists can travel across the world’s longest covered bridge. It is 1,392 feet long.
coast-to-coast road system, except for a missing link north of Lake Superior.

An active, leading role in the Dominion government's efforts at this time was taken by A. W. Campbell, Chief Commissioner of Highways, who envisioned the trans-Canada project as a moulder of national unity. In the 1922 report he declared, "Better understanding of the points of view of both east and west must arise from the intimate associations formed by interprovincial travel."

Three years later, Commissioner Campbell found even more urgent reasons for the road. At a Canadian Good Roads Association convention in Quebec he said, "We are now compelled to look upon it as a serious part of the national transportation question."

That same year, a photographer from Windsor, Ont., Ed Flickinger, dramatized the problem by making the first trans-Canada motor trip in a model T Ford. He travelled 4,000 miles on asphalt, cement, mud-wash-boarded gravel and plain dirt and covered an otherwise impassable 850 miles north of Lake Superior and in the Rockies by using flanged wheels on railway tracks.

Another persistent pioneer motorist was Dr. Perry Doelittle who, as president of the C.A.A. from 1929 to 1930, repeatedly drove every mile of the trans-Canada route open to travel. Regarded as the "father of the trans-Canada Highway", Dr. Doelittle, whose concerted interest in motoring dated back as far as 1903 when he was president of the Toronto Auto Club, campaigned tirelessly for an unbroken roadway, arranging legislatures, chambers of commerce and other audiences up and down the country.

The efforts of Dr. Doelittle and others began to take concrete shape in the thirties. From 1939 to 1940, the federal government paid $20 million to the provinces for trunk highway construction. During the depressed early thirties, highway building was an important work project for thousands of men who would otherwise have been jobless. At the same time, both the federal and provincial governments drew increased revenues from the use of the roads—from gasoline and motor vehicle taxes.

World War II put the brakes on road-building again, but with the armistice, the trans-Canada dream was reborn. At the 1945 Dominion-Provincial Conference, Ottawa recognized highways as of national concern. Then, in the first post-war year of 1946, two Canadians made an historic first motor journey across the Dominion, without resort to the use of railway trucks. Brigadier R. A. Macfarlane, DSO, and Kenneth MacGillivray ran the rear wheels of a 1946 Chevrolet into the Atlantic at Louisbourg on May 9 and nine days later dipped the front wheels into the Pacific at Victoria. They had covered 4,743 miles with only four flat tires.

A retaining wall being built high above B.C.'s Fraser River canyon. The road must be blunted from solid rock

Highway-building near North Bay. The big earth-moving machines are hard at work in many parts of this country

Dominion-Provincial conferences subsequently led to the signing of agreements in April, 1949, between the federal government and six provinces. Later, all but Quebec agreed to provisions of the trans-Canada Highway Act, passed by the House of Commons on December 10, 1949. The Act provided $150 million from the national treasury as 50 per cent. of an estimated $300 million total cost of the highway. At the same time Ottawa agreed to pay up to 50 per cent. of prior construction between April 1, 1928, and December 9, 1949, on the national route. The provinces were to decide on the "shortest practical" route, on conditions that the provincial routes connect, and they were to award their own contracts. The highway was to be completed by December 10, 1956 when the Act expires.

Specifications called for a two-lane all-weather road three inches thick, with a gravel or cut stone base, hard-surfaced, 24 feet wide with 10-foot gravel shoulders, and an unobstructed view of 600 feet in either direction on curves, except in difficult terrain such as the Rockies. Hills will be graded to not more than three degrees. Maintenance of the road will be a responsibility of the provinces.

Construction got underway in the summer of 1950 when the first million worth of contracts were let. By the end of 1951 this figure had risen to $57 million, according to a return tabled in parliament last January. Grading has now been completed on 960 miles and 406 miles have been paved. The Canadian government has so far made payments to the provinces totalling $11 million. Costs run from a low $14,000 per mile on the prairies to a staggering $450,000 a mile along the Fraser canyon.

Saskatchewan has the largest mileage of new road open, but in actual volume of work done Ontario leads with B.C. second. The Ontario government has so far let 32 contracts for 257 miles of highway of which 170 miles have been completed. Eight million dollars were to be spent this summer on the Ontario link to complete another 80 or 90 miles.

Selecting the final route proved almost as tough as getting the Highway Act passed. Towns and cities as far south as Toronto and as far north as Dauphin, Man., tried to lure the big thoroughfare their way. Ontario Highways Minister George Downie explained to one lakehead delegation that he had considered 16 different routes across Ontario.

In Alberta, three groups put in strenuous efforts to influence the road planners: an Edmonton group extolled the virtues of the Yellowhead Pass near Jasper, which is up their way; Calgarians favored the central route through Kicking Horse Pass, not far from Calgary; and southern Albertans urged use of the Crow's Nest Pass in the south. The central route was selected.

While some communities were sorely disappointed and others elated over the final choice of a route, motorists everywhere rejoiced in the news that work on the Canadian "main stem" was finally underway. Such places as Stettler, B.C., proudly named streets the "Trans-Canada Highway."

When the last mile of pavement is ready for traffic in 1956 or '57, the motorists will be able to pass his
start in St. John's, Nfld., step on the gas and keep going for 5,100 miles through 10 Canadian provinces, without fear of being stuck in gumbo, clay, dirt, gravel or snow before he gets to Victoria.

He will drive from St. John's in a 600-mile arc to Port aux Basques, on to a car ferry that will take him across Cabot Strait to North Sydney, thence along the Bras d'Or Lakes, across the Canoe causeway and along the north shore of Nova Scotia. Near New Waterford he can take the Wood's Island ferry to Prince Edward Island, and drive to Moncton, N.B. via Charlottetown, Port Borden and the P.E.I. car ferry. From Moncton, N.B., or he can get to Moncton by driving around the Nova Scotia shore via Amherst.

From Moncton, the motorist will turn southwest to Sussex, thence to the capital city of Fredericton and on to Edmundston, near the Quebec border. In Quebec, he could take a south shore or north shore route to Montreal, then follow the Ottawa River to encounter the Ontario highway system at Havelock, which will take him to Ottawa and offer him two alternate routes: he can dip south to Carleton Place and Peterborough and proceed to Sudbury via Orillia, and Parry Sound, or he can take the upper Ottawa route and proceed through Arnprior, Renfrew, Pembroke and North Bay to Sudbury. (Both southern and northern routes will be official links of the Highway.)

To cross the wild, rocky country of northern Ontario from Sudbury, the traveller will drive on through Chapleau, Schreiber, Nipigon, Port Arthur and Kenora. Westward from Kenora and lovely Lake of the Woods, the motorist will cross the prairies by way of Winnipeg, Brandon, Regina, Moose Jaw, Medicine Hat and Calgary. In the mountains he will go through Kicking Horse Pass, Banff and Lake Louise. He will skirt the Columbia River to Revelstoke and Kamloops, then drive down along the Fraser through Chilliwack to Vancouver. A boat will take the car to Nanaimo and the last stage of the trip will be motor along the Malahat highway to Victoria, the end (or the beginning, going east) of the Trans-Canada Highway.

Epics of engineering, however, still face the road builders: blasting 150-foot cliffs along the Fraser, tunnelling through salmon spawn fed by the hundreds of thousands each year. The Trans-Canada Highway will rank with the great road-building feats of modern times.

PERSONALITIES IN THE NEWS

Earl S. Neal Heads Producing Department

E. S. Neal has been appointed general manager of the producing department to succeed W. O. Twilas who became a vice-president of the Company in January of this year. Mr. Neal comes to Imperial from Producing Co-ordination, Standard Oil (N.J.), originally from Acworth, N.H., Mr. Neal attended the College of Mining at the University of California and graduated in 1928 with a science degree in petroleum engineering. After graduation, he went to Venezuela with the Lago Petroleum Corporation as a geologist. He remained there until 1938, rising to the position of chief geologist. At that time he transferred to Standard Oil (N.J.) in New York where he first was in charge of world-wide reserve studies and later head of the producing economics section.

R. D. Murray, Assistant to General Manager, Marketing

R. D. Murray has been appointed assistant to L. D. Fraser, general manager of the marketing department. He has been with Imperial since 1938 when he graduated from McGill University with degrees in arts and law. During the war, Mr. Murray spent four years in the army and saw action both in Europe and the Pacific. His experience with the Company has been in accounting, personnel work and as legal assistant. Before his recent transfer, he was assistant secretary. Mr. Murray is a former member of Canada's Davis cup team.

H. F. Stevenson Becomes Operations Manager

H. F. Stevenson, recently appointed operations manager of the marketing department, comes from Winnipeg and is a graduate of the University of Manitoba in architecture. Joining Imperial as an architect in 1938, he was transferred during the war to a special contract division of the Company which constructed bulk storage facilities in the Northwest Territories and Newfoundland for products to service aircraft “fire commands”. When these projects were completed, he returned to Toronto to assist the operations coordinator and later the chief engineer of construction and maintenance. In 1950 he was named head of the construction and maintenance division and a few months later, operations coordinator of the marketing department.

R. G. McKenzie, Assistant Manager, Alberta Division

Ralph G. McKenzie has been with Imperial since 1928, always directly concerned with the sale of products. Before enlisting early in World War II, he was a sales and expense analyst at Regina. He served four years with the R.C.N., the last 18 months in command of a corvette in the north Atlantic. Returning to his native Saskatchewan upon discharge, he was appointed a district supervisor working out of Regina. After two years with Maple Leaf Petroleum Ltd., he returned to Imperial in 1948 as sales manager of the Saskatchewan division. He held this position until his recent promotion.

Roy Carroll, 40-year Button

Roy Carroll of the manufacturing department has completed 40 years’ service with Imperial at its Sarnia refinery. When Mr. Carroll was assigned to the cooper shop in 1911, he was paid 75¢ a day to heat soldering irons used to seal caps on cans of oil. Today he is a hoist operator. During World War I Mr. Carroll spent three years in the Army Service Corps. Motor Transport Division and the experience he gained there enabled him to return to the Company in 1920 as an auto mechanic. An avid sports fan, Mr. Carroll at one time was vice-president of the Sarnia Redliny Athletic Association.
D. S. Simmons, Assistant General Manager, Manufacturing Dept.

Before his appointment to succeed J. K. Jamieson who has become a director, Dwight S. Simmons was general superintendent of Montreal East Refinery. Mr. Simmons has been with Imperial for 30 years since graduating from Queen's University in mechanical engineering. He worked in the engineering department at Sarnia until 1943 when he was loaned to the St. Clair Processing Corp. to assist in the wartime production of synthetic rubber. In 1946 he returned to Imperial and the following year was appointed assistant manager of the engineering and development division, becoming manager in 1950. He transferred to Montreal in 1951 and to his present position this spring.

Charles Scrymgour, General Superintendent, Montreal East

Charles Scrymgour, superintendent of Imperial's Ioco refinery near Vancouver for the past four years, has succeeded Mr. Simmons at Montreal. Mr. Scrymgour previously served at Montreal from 1946 to 1948 while the refinery was being modernized. Born and educated in Liverpool, England, he joined Imperial in 1921 as a junior engineer at Imperial's refinery at Halifax and in 1928 he had become the refinery's chief engineer. In 1938 he went to Peru on loan to International Petroleum Co. and after a year, returned to Halifax as assistant superintendent. He later served as superintendent during World War II. He was transferred to Montreal as superintendent in 1946 and then to Ioco in 1948.

W. A. Murray, Superintendent at Montreal East

W. A. Murray, formerly assistant superintendent of Ioco refinery, is accompanying Charles Scrymgour to Montreal as superintendent. Mr. Murray graduated from the University of British Columbia in 1951 in engineering. Two years later he joined Imperial at Ioco and remained there until last year. He returned to the company as superintendent during World War II. Murray has spent the post-war years at the refinery near his home town, Vancouver.

E. K. Lewis Transferred to Ioco

E. Keith Lewis, newly-appointed superintendent of Imperial's Ioco refinery, is a Mortimer from Belmont, N.S. who has been steadily moving west since joining the company's Imperial refinery at Halifax in 1923. He studied engineering at Dalhousie University and the Nova Scotia Technical College, graduating from the latter in 1930. At Imperial, he was promoted to refinery foreman in 1942 and in the summer of 1943, was appointed to St. Clair as chief supervisor of refinery. He was transferred to Montreal as superintendent in 1948 and then to Winnipeg in 1950 to superintend the new refinery.

A. G. Stewart Becomes Superintendent at Winnipeg

A. G. Stewart, also a Nova Scotian, is replacing Mr. Lewis as superintendent of the new refinery at Winnipeg which went on stream last summer. Mr. Stewart was educated in Alberta, graduating from the University of Alberta in 1930 with a B.Sc. (A) degree. He joined the Imperial Laboratory at Calgary in the same year and was promoted to junior chemist in 1935. He held various other positions in the Calgary refinery including that of assistant superintendent during the war. In May, 1951, he was transferred to Sarnia as supervisor of the operations analytic group and a year later received his present appointment.

S. G. Caultis Retires

S. G. Caultis has retired as general manager and vice-president of The Imperial Pipe Line Co. A graduate of the University of Michigan in chemical engineering, Mr. Caultis has been associated with the oil business in Canada for 35 years. He was engaged in field operations in Turner Valley and when the Royals Oil Co. was formed in 1921, he was its first employee and eventually, a director. He also played a leading role in setting up the Valley Pipe Line Co. which built the Calgary-Turner Valley pipe line for transportation of crude oil. He was president and general manager of that company until his transfer to The Imperial Pipe Line Co. in 1949.

E. W. Christian, new General Manager, The Imperial Pipe Line Co., Ltd.

E. W. Christian, formerly assistant general manager of The Imperial Pipe Line Co., has been appointed to succeed S. G. Caultis. Born in Dartmouth, N.S., Mr. Christian graduated in science from St. Mary's College in 1934 and then attended the Nova Scotia Technical College, where he graduated in mechanical engineering in 1936. He joined the Imperial refinery and was transferred to South America the following year. After working in Peru and Columbia, he returned to Canada in 1948. During the next few months, he was engaged in construction in Montreal East refinery and the general engineering and development department in Sarnia, and in the fall of 1948 transferred to The Imperial Pipe Line Co. at Edmonton.

W. A. Williams Goes to India

William A. Williams, superintendent of Imperial's Montreal East refinery for the past two years, has been appointed managing director of the Standard-Vacuum Oil Company's new refinery at Bombay, India. Born in Sarnia, his first position with Imperial, after graduating in engineering from the University of Michigan, was in the Sarnia refinery laboratory. During his 18 years with the company, he held several positions at Sarnia refinery including senior process engineer and manager of the technical service department. Before going to Montreal in 1950, he was assistant superintendent in charge of process operations. Mr. Williams is a naval veteran of World War II and served on convoy destroyers. He was discharged in 1945 with the rank of lieutenant-commander.

A. G. VanAbtsteyne, 40-year Button

A. G. VanAbtsteyne, general superintendent of the car equipment department, has spent more than 40 years with Imperial at Sarnia. Before joining the company, he studied engineering at the University of Toronto and worked for the federal government on land surveys. He was a draughtsman in the engineering department for several years before transferring to his present department in 1954. He became superintendents manager of the department in 1953 and was promoted to his present position in 1946. Mr. VanAbtsteyne has played an active role in the field of sport—not only as a lacrosse and football player but also as coach and one of the chief organizers of the Imperial Athletic Association.

A. W. Whitford, 40-year Button

At the annual sales and cost meeting held at Niagara Falls this spring, Albert W. Whitford was presented with his service button recognizing his 40 years in Imperial's marketing department. Mr. Whitford started work in Halifax as office assistant. He spent the busy World War I years in that post and later, in 1922, was transferred to Winnipeg as assistant chief clerk. He is now office manager of the Manitoba marketing division and will not reach retirement age for another two years. Mr. Whitford is an occasional golfer and active in Winnipeg Lions Club.
Junior Forest Wardens of British Columbia

Evergreen Patrol

Through outdoor life in summer camps and study in winter classes west coast boys and girls learn to love and protect the great timberlands. They help to fight fires and practise conservation.

In British Columbia the Junior Forest Wardens with their brilliant red shirts and green slacks are as familiar as the Douglas fir they are pledged to protect.

For more than two decades, in co-operation with the government forest rangers, they have been trail blazers in fire prevention, fire fighting and conservation in the forests.

Over the past 10 years, the Wardens have been credited with spotting, reporting and assisting to fight an average of 100 forest fires a year. Helping the rangers fight major blazes, they provide essential activities maintain lines of communication, act as messengers, signalers or radio operators and give first aid to the injured.

The Wardens are considered one of the most effective forces working for the conservation of forest resources. They share in the government's tree-planting programs and operate a nursery at Powell River which raises 5,000 trees annually.

Wardens learn that prompt reports help to check fires. Hub Cousins has tapped a telephone wire during a practice fire on a hike in the woods. Chief Warden W. F. Myring (centre) with Brian Dechter (left) and Glen Peters.

The Wardens are a volunteer organization formed in 1930. Since then some 20,000 youngsters, from 10 to 16 years old, have been members. At present 5,440 are enrolled of whom 1,461 joined in the past year.

About one-eighth of the members are girls who wear green blouses and skirts and Warden's caps, and take their duties as seriously as the boys.

Sponsored by the Canadian Forestry Association, the Wardens have the support of the public, of the forest industries and the B.C. government.

Life in summer camps and year-round study of forestry provide the basic training for the Wardens.

Province-wide, the members are organized in 167 groups. Through the Lone Patrol, boys who live in isolated areas where groups cannot be formed share in the activities through correspondence. Wardens are recruited in the schools at the ratio of two for every 100 students. They are nominated by their teachers.

Over 5,400 Junior Wardens are in training now, including more than 700 girls. Here Shirley Gfoobar leads a patrol.
Lighthouse Park, near Vancouver, is the principal training camp from April until October. In its thickly-wooded 185 acres, some 250 Wardens are initiated every year into the practice of woodcraft and conservation.

The Park runs down to beautiful English Bay on the outer area of Vancouver Harbor and is a setting in which the Wardens can enjoy all the activities normally associated with summer camp. Taught by a university professor to identify B.C. trees, the youngsters then learn to blaze trail and make camp in the wilderness. They go hiking and engage in log rolling, log bucking and barrel boxing as well as the usual outdoor sports.

Chief Warden W. F. "Bill" Myring, who is B.C. secretary-manager of the Canadian Forestry Association, and his assistants give lectures and practical demonstrations on fire fighting. Communications are stressed, with instruction in semaphore, in how to string portable telephone lines in the forest and how to operate radio transmitters. First aid is taught by St. John Ambulance.

The eight days of concentrated training in camp are supplemented by study throughout the year. It takes about three years of steady work in spare time for a youngster to complete the course.

A recruit who successfully passes several stages of training receives the Junior Forest Warden badge. He can go on to earn the Green Tree, Silver Tree and Gold Tree badges in succession.

A Junior Warden who completes the entire course graduates as a Forest Guard and often remains to instruct recruits. Many choose forestry work as a profession, either with the provincial service or in the timber industry.
To travel in the woods the Wardens learn to blaze a forest trail and to interpret the blaze marks on the trees.

At night the woods of Lighthouse Park echo to the sound of youthful voices, and fireside flickers on eager young faces as the Wardens close each day with the traditional campfire songfest.

Campfire activities are an essential part of the summer training. While the Junior Wardens are learning to know and protect their native forests, they are also learning to live with one another and acquire team spirit.

Between sessions of woodlore they receive instruction in boating and swimming. They are taught to cook their own meals, both forest fashion and camp style.

Because Warden leaders believe it makes the youngsters appreciate the privilege of attending camp, the Wardens pay part of its cost. The Canadian Forestry Association foots the remainder. During the year many of the boys and girls earn part of their camp money by selling license plate attachments for cars urging care against forest fires.

The enthusiasm of the Wardens carries the messages of fire prevention and conservation into countless homes, schools and clubs throughout British Columbia.

First aid can be important in emergencies in the forest. Supervisor Glen Muir (left) is watching a practice drill.

Patrol leader Don Fraser (left) says good-bye as his boys pack to go home after eight happy days in camp in which they gained a valuable knowledge of forestry.

Ken Miles (left) and George Gray check supplies for a hike. Badges are earned by skill in the forestry subjects.

The outdoor meals cooked on an open fire have a wonderful taste. Don Hamilton (left) shows the boys how to cook.
Threshing with Flail

Winnowing