INCO TRIANGLE

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The First Phase Finished, Noble in Concept and Design

(Story on Page 5)

INCO TRIANGLE

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This experimental gas turbine truck built by the Ford Motor Company embodies design features never before used in this type of vehicle. It was designed to meet the transportation requirements of the 1970's, when the 41,000-mile U.S. national superhighway network is complete. The truck is of double bottom design and the overall length of the unit is 96 feet. The tractor, standing 13 feet high, is powered by a supercharged 600-horsepower gas turbine engine. It cruises at 70 mph, makes no more noise than an ordinary automobile at 50 feet. Smoke-free, odorless exhaust from the turbine engine leaves the truck cab 13 feet above the highway.

Looking to 1970's, Ford Develops Gas Turbine Truck Engine with Help of High Nickel Alloys

Alloy 713LC, a high nickel alloy recently introduced by International Nickel, is one of the most important materials in the development of the Ford Motor Company's gas turbine engine. Without alloy 713LC, Ford engineers have said, successful development of the engine would have been most difficult.

The new alloy is particularly suited to precision casting of integral turbine wheels. It provides excellent ductility and strength in the highly stressed heavy hub sections which operate at relatively low temperatures and also provides the high-temperature strength required for the turbine blades. The combination of such properties has made possible the design of lightweight high-speed turbine wheels to aid engine efficiency and performance. One-piece investment casting, requiring a minimum of machining, also helps to cut production costs.

The new alloy is a low carbon version and a modification of the established alloy 713C. These alloys are patented and produced under license from International Nickel. Alloy 713LC contains 74 per cent nickel, 12 per cent chromium and other alloying elements such as molybdenum, aluminum and columbium. The nominal carbon content is 0.05 per cent and iron content is kept as low as possible.

In the Ford gas turbine, alloy 713LC castings are used for critical components such as the high pressure turbine rotor and compressor rotor, the first and second stage turbine wheels and the power turbine wheel. Operating stresses on the materials in these components are necessarily very high. The high pressure turbine rotor, for example, is exposed to gas inlet temperatures up to 1680 F and at full load operates at 75,500 rpm. The low pressure compressor and turbine operate at 36,600 rpm at full load.

Alloy 713LC is especially suited for such applications because it combines ductility with long-time elevated temperature stability and shows excellent stress rupture properties at elevated temperatures. After long exposure to such temperatures, up to 1800 F, the structure of the alloy shows no indications of carbide transformation or embrittlement. It also exhibits excellent resistance to oxidation, throughout the operating temperature range of the gas turbine, as well as high resistance to thermal fatigue.

Hastelloy alloy C, an established material developed and patented by the Union Carbide Corporation, is another nickel alloy playing a major role in the gas turbine engine. It contains 56 per cent nickel, 17 per cent molybdenum, 16.5 per cent chromium, 4.25 per cent tungsten and other alloying elements. Readily castable, resistant to oxidation and corrosive attack, strong and ductile, Hastelloy alloy C has gone into many important components of the gas turbine engine in both cast and wrought form.

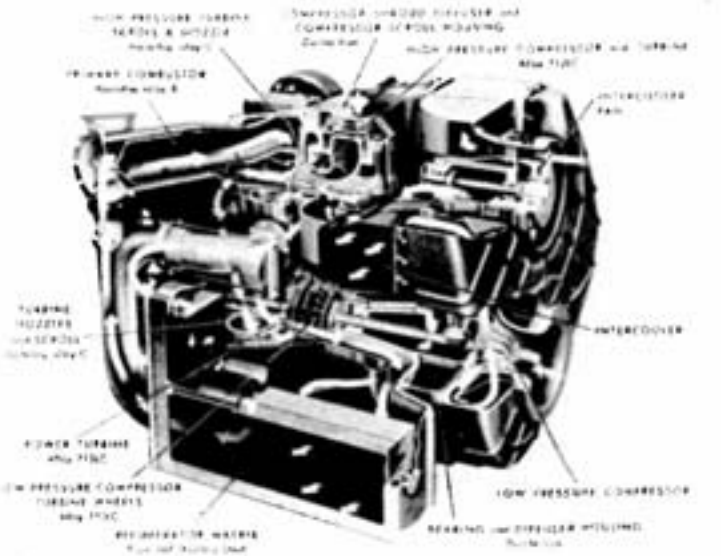
Components, in the high pressure spool of the engine, such as the turbine nozzle, scroll assembly, turbine wheel shroud, spool diaphragm seal and nozzle ring plate are of Hastelloy alloy C. The alloy is also used in the low pressure spool assembly for the first and second stage turbine nozzles and the first and second stage turbine shrouds. The power turbine nozzle, shroud and scroll assembly are also specified in Hastelloy alloy C.

A corrosion and abrasion resistant material, alloy N-155 — which contains 21 per cent chromium, 20 per cent nickel, 20 per cent cobalt and lesser amounts of molybdenum, columbium and tungsten — is used for the low pressure compressor inducer.

Significantly, all the materials used in the engine are commercially produced, readily available, and have been used successfully in related applications.

Ductile iron, a ferrous casting material also produced under patent license from International Nickel and combining the strength and toughness of steel with the castability of ordinary cast iron, is used extensively for cast housings, particularly for those which operate at moderately elevated temperatures or are required to absorb shock loads. It is used for housing such assemblies as the high pressure turbine, the upper and lower diffusers in the low-pressure spool assembly and power turbine and reduction gear box.

Several grades of nickel stainless steel are also used widely in diffusers and in the exhaust systems of the engine. Type 347 stainless steel, for example, provides the strength and resistance to corrosion required by the heat exchanger.



This cutaway drawing of the supercharged 600-horsepower Ford 705 gas turbine engine shows some of the materials used for key components in the engine. Nickel alloys play a vital role in the successful development and performance of the engine.

Vito Battistuzzi

In 1926 young Vito Battistuzzi came to Coniston and a job in the smelter. In the ensuing 10 years he and the smelter parted company on several occasions but by 1936 he realized that Coniston was the place for him. His service dates from that time and this summer he left the plant to enjoy a service pension.

Vito was born near Venice, Italy and served five years in World War I. In 1921, with jobs scarce in Italy, he went to France and a job in an iron mine. Two older brothers preceded him to Coniston and in 1926 induced him to join them.

Later that first year he was laid off and worked the next two years with the CNR. In 1928 he returned to the smelter, was laid off again in 1931, rehired in 1933, then quit in 1934 to return to Italy. In 1936 he was rehired at Coniston and for the last 18 years worked in the transportation department.

Vito's trip back to Italy in 1934 was a successful one since he wooed and won the lovely Maria Marchesin and brought her back to Canada with him. Their only daughter Beatrice is with the Bell Telephone in Sudbury.

This new pensioner and his wife keep one of the neatest and most

Mr. and Mrs. Battistuzzi

attractive homes and gardens in Coniston and like many of his fellow countrymen, Vito has magic in his fingers where plants are concerned.

Enjoying good health, Vito is quite happy at home. Next year he plans to make a trip back to Italy but for the present he is taking things easy and enjoying all the sporting events on TV.

INCO FAMILY ALBUM

In a picturesque setting of modern homes just beyond the wild life refuge at Larchwood live Raoul and Florence Mathiu and their happy family of five, shown here: Lorraine, 15, Roland, 13, Jean-Guy, 11, Gerald, 9, Denis, 7. An Inco miner for 13 years, Raoul worked at Murray before transferring to Levack.

Leonard Nadjiwan has been a crushing plant man at Copper Cliff for 17 years. Here he is with his attractive family. The sons are Ronald, 17, Charles, 16, Brian, almost 15, and the daughters are Lynne, 12, Janice, 10, and Susan, 9. They have a very happy home in Waters Township.

Roland Methot is head precipitation man at the Inco nickel refinery in Port Colborne. He has been employed with the Company for 19 years. Here he is with his wife Gabrielle and the three most important young people in their lives, Jean-Paul, 18, Dianne, 12, and Jeannette, 13.

Mr. and Mrs. Joseph Szanto of Garson with their two sons, David, 9, and Andy, 8. Mrs. Szanto took over the duties of stewardess at the Garson Employees Club this fall. Joe is a driller at Garson mine.

Ron Squires and his wife Frieda enjoy their young family. Billy is 12, the twins, Doug and David, 10, Kevin will be 6 in January and Sandra 4 on November 13. Ron works at the Coniston smelter. He was born in that town and is presently doing a major remodelling job on his home.

It takes four of mother's delicious lemon pies to serve dessert to this happy, healthy tribe: back row, Susan, 9, Charles jr., 12, Arlene, 14, Linda, 16, Beverley, 18, Judy, 19; seated, Valerie, 6, Karen, 7, Neil, 3, Lawrence 10 weeks, Janice, 2. The proud parents are Mr. and Mrs. Charles Ristimaki, Long Lake Road, Sudbury. A slusherman on 600 level at Frood mine, Charlie started with the Company in February of 1961. Beverley was silver medallist on the accordian at the Canadian National Exhibition in Toronto this year.

"SEND FORTH THY LIGHT AND THY TRUTH"

THE ARTS AND ADMINISTRATION BUILDING AND MAIN ENTRANCE TO THE UNIVERSITY

THE RALPH D. PARKER LIBRARY PODIUM BUILDING AND A CORNER OF THE HUGE PAVED CENTRE COURT

Set amidst three lakes, rocky outcrops and native trees carefully preserved in the landscaping of the campus, the graciously modern buildings of Laurentian University of Sudbury fulfill their founders' dream of the most dramatic and most beautiful establishment of higher learning in Canada.

THE SCIENCE BUILDING

AMPHITHEATRE LECTURE ROOM

LAURENTIAN'S MAGNIFICENT LOCATION ON LAKE RAMSEY, ONE OF THREE LAKES SURROUNDING IT. IN FOREGROUND IS HUNTINGTON UNIVERSITY STUDENTS' RESIDENCE. SUDBURY AND THORNLOE UNIVERSITY RESIDENCES WILL OCCUPY ADJOINING SITES Aerial Photograph by Michael Dudowich

Premier Lays Cornerstone at Laurentian U.

A proud day in the history of Northern Ontario was Thursday, October 8 when Premier John Robarts laid a cornerstone to mark completion of the $9,000,000 first phase in the creation of Laurentian University of Sudbury.

A translation of the Latin inscription on the cornerstone reads: "To the Glory of God, that the Study of Science Might Flourish, the Hon. J. P. Robarts, Q.C., Laid this Stone on the 8th Day of the Month of October, 1964".

In the long procession of faculty, governors and distinguished guests wearing their academic gowns, that made its way to the steps of the Ralph D. Parker Building for the ceremony, many illustrious universities of the world were represented.

"This is the first time in the history of this great province that representatives of the two basic languages of Northern Ontario have joined together in a venture into the realm of higher education," Dr. Parker said in tracing the history of the founding of Laurentian University.

Premier Robarts also stressed the unique characteristics of Laurentian as a bilingual federated university "combining the traditions of language and culture of our two major groups and also incorporating many aspects of the cultures of the hardy citizens who have come to the Sudbury district from so many countries to make their contribution to the Canadian mosaic." He praised the co-operative nature of the development of the university under various church auspices.

Following the cornerstone ceremony the installation took place in the great hall of Dr. Stanley G. Mullins as president of Laurentian, the oath of office being administered by Dr. Parker, chairman of the board of governors, and Judge Maurice N. Lacourciere, representing J. N. Desmarais, the board's vice-chairman.

Dr. Mullin's brilliant inaugural address, given in both English and French as were other remarks at the installation, was built around a quotation of Jean-Jacques Rousseau, "Man is born free, but is everywhere in chains," which he related to "crippling mistrust and obstructing suspicion that have hobbled the advance of our country and checked the development of our national identity." To the elimination of such mistrust and suspicion, he said, Laurentian University is dedicated.

Greetings were extended by Ontario premier John P. Robarts; from the universities and colleges of Canada by Msgr. G. Abel, professor of English at Laval University; from the older universities of Ontario by Dr. M. St. A. Woodside, vice-president (academic) of the University of Toronto; and from the younger universities of Ontario by Dr. H. S. Braun, principal of the Lakehead College of Arts, Science and Technology at Fort William.

Four Federated Colleges

Four federated colleges compose the faculty of arts and science in Laurentian University: the Roman Catholic college of Sudbury, the United Church college of Huntington, the Anglican college of Thornloe, and the non-denominational University college.

On its 500-acre site the university has acquired from its first phase of development a strikingly beautiful complex of buildings, dramatically designed in pre-cast concrete and native stone. The dominant building, regarded as the symbol of this new bilingual, multi-theological university is the great library podium, on which a tower will later be constructed. The library podium, the arts and administration building, the science building, and the classroom are all connected by enclosed bridges and tunnels. There is an internal "street" on the first floor of the arts building, a wide glass-protected walkway in which students can saunter in comfort, congregate, and admire the view. It overlooks a huge concrete court which may be used in winter as a skating rink.

A 300-seat dining hall and a bookshop are among facilities now available to university students.

Huntington College has completed a fine residence and academic building overlooking the academic centre of the campus. On adjoining sites both Sudbury and Thornloe Colleges will soon construct similar facilities.

Construction is underway of the university's athletics building.

(Continued on Page 9)

DIGNITARIES OF STATE, CHURCH AND EDUCATION AT THE CEREMONIES.

From the left, seated, Dr. Harold Braun, principal of Lakehead College of Arts, Science and Technology, Port Arthur; Dr. Earl S. Lautenslager, principal of Emmanuel College, Toronto, former president of Huntington University; Most Rev. W. L. Wright, DD, archbishop of the Anglican Diocese of Algoma, chancellor of Thornloe University; Msgr. J. L. Cote, representing Most Rev. Alexander Carter, bishop of the Roman Catholic Diocese of Sault Ste. Marie, chancellor of the University of Sudbury, who was in Rome at the Ecumenical Council gatherings; John Robarts, Premier of Ontario.

Dr. Stanley G. Mullins, president of Laurentian University; Dr. Harold Bennett, former president of Laurentian University, secretary to the board of governors; Dr. C. J. Doherty, member of the university board of governors, representing Dr. H. J. Fraser, chairman of the building committee, unable to attend; Rev. Lucien Motte, president of the University of Sudbury.

"The name Laurentian University connotes in its grandeur not only consciousness of our geography but also awareness of our history" Dr. Ralph D. Parker, chairman of the board of governors, said in his address at the cornerstone ceremony at which he presided. Seated, left, are Dr. Ben F. Avery, chairman of the founders' fund committee of Laurentian, and A. J. Samson, member of the executive committee of the board of governors. In our COVER PICTURE Premier John Robarts, nickel stainless steel trowel in hand, has just laid the cornerstone; on the left in the background are N. H. Wodge, member of the board of regents of Huntington University, and C. F. T. Rounthwaite, one of the Laurentian University architects.

Don McLean Again Winner

Fleet of foot and sound of wind and limb, Don McLean again won the Creighton Lively Elks' annual Labor Day road race, his superior condition giving him the edge on the rest of the pack. George Hood came second. The course was from Pentney's service station to the Elk clubhouse, two miles. Bill Oja, 62, was the oldest runner to finish, coming in fifth. Picture shows the lineup at the start: Mike Petryshyn and Stan Alary, officials; Ernie Watts, Bill Oja, Dick Brooks, Bill Ross junior and senior, George Hood, Bob Johnston, Roy Murphy, Bert Edinger, Lee Alexander, Don McLean, Joe Skatula, and starter Stan Fera.

John Spiwak

John Spiwak had worked at Frood-Stobie since 1929 and he'll be missed there now that he has taken an early service pension. He was a shaft pipeman most of his time and was familiar with all the pipelines in each shaft at Frood and Stobie.

Mrs. Spiwak

He came to Frood from a construction job at the Copper Refinery. "It was raining one day and we couldn't work outside," he explained, "so I went to have a look at Frood. I got a job right away." He worked on development headings, then joined Albert Brady's pipe gang. In 1932 he went into the stopes and three years later returned to the pipe gang.

John worked as a shaft pipeman at Stobie since that shaft was collared in 1942. He liked his work and was respected for his ability.

Born in Poland in 1902 he served three years in the army and worked on the farm until coming to Canada in 1928. He farmed for a year near Weyburn, Saskatchewan, then a cousin told him of the construction work at Inco so he came east in 1929.

John married Henrietta Kamniski in 1927 and they have one daughter Helen (Mrs. D. McMillan) of Falconbridge, a son Richard at high school, and three grandchildren.

THE LADIES SHOWED A FINE BURST OF SPEED TOO

The ladies, who hotfooted it one mile at just about as fancy a clip as did the men, were led at the finish by Mrs. Nettie Petryshyn, with Mrs. Ruby Jones second. The picture, taken just after the race, shows the contestants, Mrs. Ethel Toner, Mrs. Marcella Kontturi, Mrs. Phyllis Hood, Mrs. Marion Skatula, Mrs. Doris Murphy, Mrs. Joy Robson, Mrs. Shirley Paquette, Mrs. Comey Pettigrew, Mrs. Sheila Brownlee, Mrs. Ruby Jones, Mrs. Nettie Petryshyn. How come the Olympic committee overlooked these prospects?

A small apartment home in Sudbury provides just about enough work to keep this new pensioner happy right now. In good health he is thoroughly enjoying retirement.

Art Lacelle

Art Lacelle recalled that when he was a boy Chelmsford boasted a big sawmill that was operating on two shifts. He worked there for a time.

Art was born at Chelmsford 60 years ago. This summer he retired from the converters at Copper Cliff on an early service pension. He had worked there since 1937.

His first job at the smelter was in the Orford building. A few years later he went to work on the converters where he became a skimmer. "I worked steady on no. 2 converter the last 10 years," Art said, "and that was a good spot."

Mr. and Mrs. Lacelle

The Lacelle family is a large one with 14-year-old Patricia the eldest. Others are Jeannette, 12, Claudette, 10, Line, 9, Lucille, 8, Roger, 6, all at school, and Theresa, 5, Cecille, 4, Anne, 2, at home.

Art is really enjoying retirement. "This is the best life I have ever had," he smiled. Last year he and Mrs. Lacelle motored to Nova Scotia and later took a bus trip to British Columbia. They hope to do more travelling now, although Art is quite happy just puttering around his home in the Minnow Lake area of Sudbury.

Stobie general foreman Clare McAfee presents a purse of money to John Spiwak on his last shift at the mine.

Bill Lajeunesse

Bill Lajeunesse had his first regular job when he was 11 years old. "We were poor," he grinned, "and everybody had to pitch in. I worked in the bush helping build roads." At the mature age of 13 he went into the sawmill at Benny and worked there until it closed down in 1926.

Retired now on service pension from the Copper Refinery, Bill doesn't feel any adverse effect from 55 years of hard work — in fact the opposite is true. "I feel great," he said, "and I hope I get some sort of a job soon. I don't like being idle."

Bill was born in Wisconsin but after his parents died he was raised at Noelville by an aunt. He went to Espanola in 1926 and when the mill closed there in 1929 moved to Turbine and helped Fraser-Brace build an addition to the power plant.

From that job he came to the Copper Refinery construction and in 1930 got a job in the blacksmith shop. Laid off the following year he was rehired in 1934 and worked with the blacksmiths for 30 years, the last 20 in the casting building.

His first wife, whom he married in 1923, died in 1929. He remarried in 1938, Marie Prevost becoming Mrs. Lajeunesse. Their family include Eveline, Bibiane (Mrs. M. Pelland) of Sudbury, Therese, the wife of Roger Proulx of Garson, Gerald in Detroit, Carmen, a teacher at Moosonee, Raymond in Ottawa, and Agnes, Jean-Marie Claire, Maurice, all at home. Eleven grandchildren complete their family circle.

Mr. and Mrs. Lajeunesse

Horn and Mrs. Lee were honored guests of the Copper Cliff hospital staff. Seated left to right are Jean Corcoran, Chief Surgeon Dr. B. F. Hazlewood, Mr. and Mrs. Lee, hospital matron Barbara Truszkoski, Norma Darrach, and standing, Beverly Duff, C. Bergeron, Winnie Nikart, Maria DelBosco, Elaine Dupuis, Clara Cameron, Linda Matthews, Rita Lapalme, Cy Varney, Lee Acheson, Ella DeFilippio, Dorothy Fraser, Lydia McLean.

Horn Lee

Things won't be quite the same at Copper Cliff hospital now that Horn Lee has retired on pension.

Horn was major domo of the laundry and operated that department with pride and efficiency. His personalized laundering of nurses' uniforms made him a great favorite and one afternoon before he left the hospital they honored him and his wife at a tea party.

Almost all the staff attended and chief surgeon Dr. B. F. Hazlewood thanked Horn for his devotion to duty and wished him well in retirement. He was presented with a miniature iron and a wallet of money and Mrs. Horn received a bouquet of roses.

Horn came to Canada in 1916 and to Sudbury the following year. Until 1941 he worked in his brother Sing's laundry, then took over the hospital laundry upon the retirement of Joe Lee.

Lilly Woo and Horn were married in 1922 and they have a daughter Wah (Mrs. J. Chan) in Ohio, a son Long on the Chinese mainland and six grandchildren.

Horn is planning a trip to Ohio to visit his daughter and then he hopes to settle in Hong Kong and live comfortably on his pension.

Treffle Sauve

Tref Sauve has been in mechanical work more than 50 years. A young looking and vigorous 65, he has now retired on pension from the mechanical department at Copper Cliff. He was a shift foreman there the last 15 years and had worked in the machine shop many years previous.

Tref Sauve with the gift presented to him by the boys on his retirement.

Tref was in the Copper Refinery machine shop for seven years in the thirties but quit in 1939 and the same year started at Copper Cliff. His brother Joe, who retired in 1960, was also a well-known Copper Cliff mechanical man.

Born at Moose Creek, near Ottawa, in 1899, Tref was raised at Espanola where the family moved in 1907. He worked at the paper mill there until 1926, spent a year in the shops at Teck-Hughes and a couple of years at the Sturgeon Falls paper mill, then came to Sudbury.

In 1920 he married Mary Ann Lafreniere and they have two daughters, Jean and Carmen. The Sauves live in Sudbury but Tref has a couple of houses in Val Caron that require some attention and will occupy a good deal of his time for a while. Not enough though to interfere with his hunting, fishing and enjoying the pleasures of his Lake Agnew camp.

As a parting gift the boys in the shop presented Tref with a mantel clock set in a model of a converter gear and needless to say it is now one of his proudest possessions.

Elmer Howard

Another converter department oldtimer enjoying retirement is Elmer Howard who for the past 20 years was a skimmer.

Elmer Howard

Born and raised on a farm in the Ottawa Valley, Elmer was a farmer and lumberjack before coming to Copper Cliff in 1929. He first worked for the town then got a job in the old converter building. "There's been lots of changes since I started there," he said, "and they have all been improvements."

Elmer lives in Copper Cliff with his son Borden and also has two daughters, Marion (Mrs. S. Picard) of Levack, Doris (Mrs. B. Bloom) of Kingston and eight grandchildren. Mrs. Howard, who was Catherine Morrison before their marriage in 1931, died in 1963.

A man who likes to hunt and fish, Elmer has been spending a good deal of time lately at his brother's Nepawassi Lake camp.

While not complaining about his new life Elmer finds the time a bit long now. "I'd rather be working," he said and chances are he'll have a job before long. At present, he says, "I make a good baby-sitter."

Dmytro Wolanski, Henry Ross Farewelled at Clarabelle Open Pit

Two well-known Clarabelle oldtimers left on the same day recently to enjoy the pleasures of pension. Dmytro Wolanski and Henry Ross are pictured above with Clarabelle superintendent, Norman Creet (second from left) and a few of the boys after farewell speeches and the presentation of purses of money had been made. Dmytro had been an Open Pit man since 1944 and Henry since 1950.

On arrival in Canada Dmytro spent a couple of years farming in Alberta where the great Leduc oil discovery was later made. He came to Sudbury in 1930, down to his last twenty-five cents. A job in the bush kept him going until he get a job at Frood later that year. He was an underground miner for 14 years before transferring to the Frood Pit and ultimately to Clarabelle.

He married Mary Kowychuk in 1939. They have two sons, Bobby at Levack, Walter at Copper Cliff, and a daughter Olga (Mrs. J. Billows) of Oakville. Dmytro and his wife enjoy a comfortable home in Sudbury's Northern Heights subdivision.

Henry Ross is a true Sudburian; he was born there 65 years ago and has never been away too far or too long in all that time. His father worked for the town of Sudbury and so did Henry for a number of years. He also spent three years at Sellwood where he met and married Georgina St. Laurent in 1920.

Mrs. Wolanski Mrs. Ross

Before transferring to the Frood Open Pit in 1950 Henry had been a smelterman for many years. "I was on the cranes in the converter aisle for 18 years," he said. At the Open Pit he worked in the garage, drove haulage truck and lately was a dump tender at the crusher.

The Ross family is a large one. Daughter Ida is married to Wilfred Bergeron of Levack. Albert works at the Copper Refinery. Romeo, Louis and Ivan are in Toronto. Art is in Hanmer, Rita (Mrs. L. Tremblay) and Bella (Mrs. J. Martel) are both in Sudbury. There are 45 grandchildren and one great-granddaughter.

Henry lives near the CHNO transmitter in the McFarlane Lake area and has a big garden that he is looking forward to spending more time working next season.

Both he and Dmytro miss the many daily contacts with the boys at work.

Modern Industry Heavy User of Platinum Metals

Platinum and the platinum-group metals, once used largely for jewelry, are now working almost exclusively in industry.

Where 40 years ago nearly 65 per cent of the annual consumption of these precious metals in the United States went into jewelry, only about six per cent was used for that purpose in 1962, according to an article in International Nickel's INCO Magazine.

Reflecting their exceptional usefulness to industry, consumption of the platinum-group metals in the United States has expanded more than five times in a quarter century. At the end of 1962 it had reached some 865,000 troy ounces, representing from one-half to two-thirds of total Free World consumption.

The six platinum-group metals are platinum, palladium, rhodium, iridium, osmium and ruthenium.

The notion that platinum-group metals cost too much to be used in industry has crumbled before the realization that it might cost too much not to use such a metal, says the article. They are widely used in such areas as petroleum refining, communications, electronics, glass making and the aerospace industry.

Platinum and the platinum-group metals, together with gold and silver, are playing a vital role in the exploration of space.

The precious metals, either alone or as alloys, possess a number of properties ideally suited for the aerospace program. As noble metals, they have exceptional resistance to oxidation and corrosion in the wide range of temperatures encountered in space service. In combination with their unique properties, they also have high reflectivity and are excellent electrical conductors. And their ability to function as a catalyst opens up many other potential aerospace applications.

Thermocouples, used to measure the tremendous range of temperatures found in space, are made of platinum, platinum metal alloys and platinum metal-gold alloys. A corrosion-resistant platinum wire screen is used to filter and disperse liquid hydrogen peroxide, thereby speeding its change from a liquid to the gas used to power small control rockets. Physical and chemical stability make the platinum metals ideal for electrical contacts in communication systems.

In other areas, palladium-containing brazing alloys are used to join thin walled tubing used in the thrust chambers of large rocket engines, while platinum finds application in fuel cell power plants for the production of electricity.

Gold-plated satellites, silver-infiltrated tungsten rocket nozzles and rhodium-plated printed circuits are other examples of the vital role the precious metals are playing in the conquest of space.

The advantages of platinum are demonstrated daily in the upgrading of gasoline. "With the aid of platinum catalysts," the article points out, "the molecules of lower grade fuels are rearranged into high-octane gasoline. In the United States alone petroleum refiners have already paid over $100,000,000 for metallic platinum, and many additional millions for reformers where it is used. About 80,000,000 gallons of high-octane fuel are produced by reformers each day."

Nearly all of the world's nitric acid is produced with the assistance of platinum catalysts. Platinum-group metals have also been used for the manufacture of hydrogen peroxide which is essential to the propulsion of some rockets. The use of a platinum alloy in connection with the extrusion of molten glass to form glass fibers is an example of one of the precious metal's many applications in the glass making industry.

The platinum-group metals in electrical contacts are also found in a variety of appliances, including computers, automatic traffic signals, electric organs, coffeemakers and clock radios. Billions of palladium contacts are in use in telephone systems, and an additional billion is added each year.

To this day, however, the INCO Magazine article continues, platinum remains one of the most important jewelry materials. The natural whiteness of a platinum setting fully reflects the true color and enhances the sparkle and beauty of diamonds, and the strength and high ductility of platinum and its alloys make it possible to secure jewels in extremely small settings and with equally small clasps.

Substantial quantities of the platinum-group metals are produced in only a few countries: Canada, South Africa and the Soviet Union — the three largest sources — and Colombia and Alaska. International Nickel is one of the world's leading producers, recovering platinum, palladium, rhodium, ruthenium and iridium from its ores in the Sudbury district. International Nickel maintains a refinery for purifying the platinum-group metals, and a special laboratory for research into their properties and industrial applications.

(1) From left to right Marion Fitzjohn, her son-in-law and daughter, Jack and Lorna Fleury, Ed Fitzjohn and Mrs. J. Tatham; (2) Louie Eppich, Archie and Jean Kerr, Gerry and Margaret Marcotte left to right.

Purchasing & Stores Party Still Big Favorite

Legion Memorial Hall in Sudbury was set up in smart cabaret style for the purchasing and stores departments' 5th annual dance and social evening. Adding a novel touch was the individual naming of tables with some amusing and original titles in evidence.

About 250 merrymakers enjoyed dancing to the sweet music of the Commodores and later did full justice to the delicious southern fried chicken served by the Legion ladies. Jerry Mahon entertained with another of his now familiar and amusing personal poetry bits. All in all it was a big evening.

Joe Gauthier, Larry Kavanagh and Jerry Mahon attended to arrangements for the party which will be a hard one to top next year.

Merrill Paquette, Karen Cook, Ted and Maxine Bryant, Joyce and Henry Nelson.

Cliff and Marilyn Hornsby, Dave and Edna Walberg, John and Pat Bird.

Doris Ward, a recent pensioner, is pictured with a group of the Copper Refinery girls who feted her at a party. In the front row are Donna Somers, Linda Bibby, Beverly Downer, Evelyn Fox, and behind them Velma Fallon, Marg O'Hara, Mrs. Ward, Hattie McCrea, Theresa Doiron, Charmaine Hiscock.

Doris Ward

Held in affectionate regard at the Copper Refinery, where she was employed since 1941, Doris Ward retired recently on pension.

"I can't get used to not working though," she smiled. "I'll just have to get another job." And she already has several prospects at Ottawa where she moved early in November. "I enjoy a new challenge," she added, "and I am looking forward to starting a new career."

At the Copper Refinery Doris had served in several departments. She was with the stenographers a short time, then entered the laboratory office and later became a junior chemist. In 1957 she joined the works metallurgist's department and was there at retirement.

Mrs. Ward is proud of her family, all graduates of the University of Toronto and all married to graduates of the same university. Son Allan is a high school teacher at Ingersoll, daughter June (Mrs. E. Bishop) is in Toronto and Lois (Mrs. R. H. Buchanan) in Ottawa. She has six grandchildren.

Before leaving Doris was honored by her many friends at the Refinery when they presented her with a gold watch and a cheque. Earlier the girls had a "do" for her at the home of Marg O'Hara when she received an electric fry pan.

Laurentian U.

(Continued from Page 5)

which eventually will have a swimming pool, squash courts, and other facilities.

Some 10,000 yards of grass sod, grown in the Blezard Valley, has already been laid in the elaborate landscaping program.

Dr. Thomas Howarth, professor and director of the school of architecture at the University of Toronto, architect - planner to the board of Laurentian, had this to say of the university's "fringe benefits":

"The richly colored rocky terrain rises in an arc of hills some 160 ft. above the water line of three lakes, and magnificent prospects over the surrounding countryside can be obtained from the high ground on which the main academic centre is placed. The valleys lend themselves to fine landscaping and should provide excellent facilities for a variety of field sports in the fall, spring and summer. Winter sports at Laurentian — skating, skiing, tobagganing, ice yachting, etc. — should be excellent. The university has outlets on all three lakes — Ramsey, Trout and Pike — (now renamed Bethel and Nepahwin) and fine opportunities for developing water sports, sailing and canoeing."

Laurentian University is very definitely "in business", with an enrolment of 550 in the regular classes and 350 in night classes. The majority of the students are from the Sudbury area, although there is already a goodly representation from more distant sections of Northern Ontario. The enrolment is expected to increase by leaps and bounds. A wide range of student activities, including a full-scale athletic program, is being carried on under the supervision of the dean of students, Maurice Regimbal.

Murray McKenzie

Hallowe'en High Jinks For Thompson Youth

Thompson Community Club, about as alert and active an organization as any town could dream of, came up with another solid-gold success when it staged an afternoon Hallowe'en party for 600 kiddies (above), and a masquerade dance in the evening for the towns teen-agers (below) in the high school auditorium. At both affairs there was a tremendous variety of clever and amusing costumes to show how the young people appreciated and entered into the spirit of the arrangements. Decorations were made by the boys and girls themselves as an art project at school. In a colorful clown get-up Jolly McKinley was the life of the afternoon party. Winners of the best costume awards of the teen-agers' dance were Neil Agnew and Diane Bogaro.

NICKEL PLATING

There is no clear-cut limit to the thickness of nickel that can be electroplated. Thicknesses from a few millionths of an inch to several inches have been applied.

ELECTRICAL DEPARTMENT LIVE WIRES STAGED FINE PARTY

The Copper Cliff electrical department's sixth annual dance was another high voltage affair with close to 125 dancers enjoying the evening's fun at the Italian Club in Copper Cliff. Toe-tapping music for the young and not-so-young was provided by Con DiSalle and his boys, and around midnight the ladies served up mountains of delicious chicken and spaghetti to an appreciative crowd.

Roly Albert, Jim Edmunds and Albert Prete were in charge of arrangements. President of the department's welfare executive is Warren Thompson.

Left to right in the above group at the much-enjoyed party are Lillian and Ken Flake, Stella and Gil Benoit, Don Sylvestri, Jackie and Fred Johns, Bella and Ken Nadjiwan.

Joe Meandro

Joe Meandro has retired on disability pension and is taking good care of his health at his home in the Gatchell area of Sudbury. Joe joined the Company in 1929 after working three months for Fraser-Brace on the smelter construction.

A converter man most of his years at the smelter, Joe was a skimmer the last 20 years and had punched tuyeres a dozen years before that. His first job was with the yard gang.

In 1935 Joe married Nellie Beltrano in the Soo. They have a son Frank with the Bell Telephone in Sudbury, a daughter Sylvia (Mrs. F. Panelli) in Toronto, and two grandchildren.

Joe made a trip back to Italy in 1957. He misses the gang at work but enjoys his home and family. In summer gardening is his favorite hobby.

Mr. and Mrs. Meandro

New member of the Toronto chapter of the Inco Quarter Century Club, Miss Audrey McGowan, chief clerk in the Toronto office, is shown with executive vice-president James C. Parlee and two members recently transferred to Toronto from Copper Cliff, assistant to the vice-president G. A. Harcourt (left) and metallurgist W. H. Armstrong (right).

Audrey McGowan Is New Toronto Member

Having finally outgrown the capacity of the Quebec room, Toronto chapter of the Inco Quarter Century Club this year moved up to the roof garden for its annual dinner meeting, attended by some 120 members and their guests, the latter mostly Inco pensioners and their wives residing in the Toronto area.

Miss Audrey McGowan, the charming new member, received her gold button from executive vice-president James C. Parlee, who also welcomed two members transferred to the Toronto chapter of the club from Copper Cliff, Dr. G. A. Harcourt and W. H. Armstrong.

After dining on filet mignon followed by frozen Algonquin log, the latter ceremonially paraded into the hall with cherries flambe, the guests enjoyed a program by the Hansen Sisters, violinists, and Maurice Pearson, tenor.

Kozna Drake of Oshawa, who was a hoistman at Murray when he retired on service pension in 1957 after 39 Inco years, gets a hearty greeting from Mr. Parlee.

Among those enjoying the sociability were: (1) Miss Louise Schofield, just back from a holiday trip to Yugoslavia, assistant vice-president and chief geologist Frank Zurbrigg, Mrs. J. Yowney; (2) Miss Edna Browne, Dr. A. H. Duncan, Mrs. C. E. Michener; (3) Mrs. Frank Zurbrigg, Mr. and Mrs. T. Kauppinen.

(1) Administrative assistant T. R. Dodgson and Mrs. Dodgson, Mrs. Albert Dockrell; (2) C. W. Coo, Mrs. Louis Renzoni, Mrs. R. L. Beattie; (3) Mrs. Hardy and her husband George, Mrs. J. Szendrey.

(1) Mrs. Trevor Beckett, assistant to the comptroller Clarence Beach, Mrs. William Rogers; (2) Mrs. Clarence Beach, William Rogers, Miss Allegra Walker.

Pete Zahavich

Pete Zahavich was one of Frood's better miners during the 29 years he worked there. He suffered a stroke last summer and has retired on disability pension.

Pete's many friends will be glad to know that his improvement, while slow, is positive, and would welcome visiting friends at any time.

Born and raised in Copper Cliff Pete went right from school to a job with the Company. He started in the framing shop at Frood in 1929 and from there went to the concentrator at Copper Cliff, then to the smelter. In 1935 he returned to Frood and worked underground, mostly as stope boss, until joining the staff of the efficiency department in 1941. He returned to production in 1944 and worked as miner and stope boss until this past summer. "I was on 3600 the last few years," he said.

Pete's wife Lena Fedor, whom he married in 1933, is the daughter of an old Mond man, Sam Fedor, later an Inco pensioner. Pete and

Mr. and Mrs. Zahavich

his wife have two sons, Peter junior and Jim; the latter's wife Wilma is a member of the stenographic pool at the Company's general offices in Copper Cliff. A delight to her grandparents is their 18-month-old charmer of a granddaughter.

Now able to get about more, Pete enjoys his daily walks, especially when he meets old mining friends — and he has a host of them.

GLEAMING JEWELRY

The gleaming finish on most of today's costume jewelry is accomplished by plating with the precious metal rhodium — one of the platinum-group metals produced by International Nickel.

HERE, THERE, EVERYWHERE

"Did you fish with flies?" asked the friend of the returned vacationer.

"Fish with flies!" cried the weary vacationer. "You can bet your life we did. We fished, camped, dined and slept with flies!"

George Lukachko

Taking an early service pension from Frood where he has worked since 1957, George Lukachko joins that growing family of happy Inco pensioners living in the Donovan section of Sudbury. "I've lived here 27 years," smiled George, "and I know nearly everybody."

George was born 64 years ago in Czechoslovakia and served with the cavalry during World War I. Out of the army in 1923 he returned to farming until sailing for Canada in 1928. He first worked the harvest in Alberta, then spent the next nine years in the coal mines at Drumheller, Alberta.

Mr. and Mrs. Lukachko

At Frood George worked as drift driller, pillar man, on construction work and on the skips. The last three years he was pumpman on the lower levels.

George married Elizabeth Zanuk in 1926 and she joined him in Canada in 1948. Their only son Michael was killed in the war.

Daily walks and reminiscing with old friends over a friendly glass are among this new pensioner's leisure time pleasures. In summer his fine garden occupies a good deal of his time. He made a trip back to the old land in 1956 and may make another next year.

Two very-much married old cronies were talking over their long and painful experience under the yoke.

"I'm telling you," exclaimed one old codger to the other, "if they'd had electric blankets and sliced bread when I was a young man I never would have got married in the first place."

Celebrate 100 Years Of Italians in Canada

Celebrating the centennial of Italian settlement in Canada the Italian Society of Copper Cliff held a banquet in their club at which the mayor of the town, R. G. Dow, and the general manager of its great mining complex, T. M. Gaetz, praised the Italian influence on the development of the Canadian nation. The speaker of the evening, A. J. Pianosi, reviewed highlights and achievements during the 100 years of Italian citizenship in Canada. Shown above at the head table are Mrs. T. M. Gaetz, Mr. Dow, Mr. Pianosi, who was chairman of the centennial committee for northern Ontario, program chairman Dino Miatello, Mrs. Amelino Delvecchio, Mr. Gaetz, Mrs. R. G. Dow, Mrs. Gertrude Miatello. The artistic decorations for the auspicious occasion were created by Bruno Bartolucci and Angelo Favot, assisted by the ladies of the Italian Society who also served one of the sumptuous repasts for which they have long been famed throughout the Nickel Belt.

Ed Moore

Ed Moore was a steel sharpener for more than 40 years, nearly all spent with Inco. He's on pension now and spending most of the time at his Millard Lake camp. "I like the bush and lakes," he said, adding with a grin, "Maybe that's why I never got married."

Ed Moore

Ed had worked around Frood since the great No. 3 shaft was collared in 1927. He sharpened steel there until the Open Pit got underway in 1938, then went over and helped sharpen the big churn drill bits. He returned to Frood earlier this year.

He was born 65 years ago in Hamilton, but the first 10 years of his life were spent near Nottingham, England. In 1909 his father came to Garson and a job with the Mond Nickel and Ed started work there too when he was 14, picking rock.

After the war he went to Murray as a skiptender, then in 1921 started in the steel shop. In 1923 Murray closed down so Ed became a steel sharpener on the Welland Canal construction. He came up to work at Levack in 1926, and the following year moved to Frood.

A regular in the Frood-Stobie bowling league for over a quarter of a century, Ed has been on many trophy winning teams. "I'm going to bowl this winter too," he said.

He lists walking, reading and enjoying good music as tops among his leisure pleasures. At one time his charred pipe was on that list too but after some recent dental work Ed found the pipe didn't fit too well. "I'm on the fags now but they're not so good," he said.

"We had to shoot our dog yesterday."

"Was he mad?"

"Well, he wasn't exactly pleased about it."

Commemorative medals of the Italian centennial in Canada were presented to Copper Cliff mayor R. G. Dow and Inco assistant vice-president T. M. Gaetz. The presentation to Mr. Dow was made by Remo Canapini, president of the Italian Society of Copper Cliff, and to Mr. Gaetz (right) by Mrs. Amelino Delvecchio, president of the ladies of the Italian Society.

T. B. L. Reds Champs of Thompson Baseball

Sweeping through an 18-game schedule with a 13-5 record, Thompson Bus Lines Reds captured their third pennant in the four-year history of the Thompson senior baseball league. They went on to topple the defending champions, H. D. Tigers, two straight in the semi-finals, then dumped Inco Royals in the finals for the loop championship. Picture shows: back row, Mrs. L. Thiessen, president of Thompson Bus Lines, Glen Hogarth, Bill Womsley, Bernie Braun, Lorne MacVicar, Tom Suchy, Phil Headley, Ed Davis, Bob Thompson, Red Sangster; front row, Norm Propp, Fred Tresoor, Don Kampman, batboy Monte Calder, Jack Sangster, Garth Jordan, Doug Minary. Top pitching, a solid hitting staff, and almost flawless ball carried the team through the season and into the playoffs.

Ken Clarke was a metallurgist at the Copper Refinery for a year and a half before he left in 1937 for Toronto to join the Company's sales and market development of which he is now manager for Canada. On a recent visit to Copper Cliff he toured the refinery with manager Graham Dick. Picture shows him (centre) chatting with one of the old-timers, stripper leader George Kurdel.

The Work of Inco's "Market Makers" Related by Manager K. H. J. Clarke

"The idea of a primary metal producer selling his product by promoting the sale of his customers' products is as old as International Nickel itself," K. H. J. Clarke of Toronto, manager of Inco's Canadian sales and development, told the Central Ontario Purchasing Agents Association at a meeting in Sudbury.

"The Company's very first annual report, for the year 1903, articulated this concept. Here's what that report said: 'Every effort is being made to introduce nickel into new fields and to extend its use in old lines . . . The results have been gratifying; about 12,000 tons of nickel steel rails, 3½ per cent nickel, have been purchased by the railways . . . Seamless drawn tubes, containing a high percentage of nickel, have been successfully manufactured . . . it is quite probable that within a very short time nickel steel will be largely used in bridge construction.'

"These words," said Mr. Clarke, "spoken over 60 years ago, spell out the concept very simply — the expansion of the market for nickel by creating and broadening markets for nickel-containing materials.

"When that first annual report was published, only about 10 million pounds of nickel were being marketed annually. At that time nickel was used primarily for plating and in coinage. By comparison, in 1963, 525 million pounds of nickel were used in stainless and alloy steels, plating ferrous and non-ferrous foundry products — in more than 3,000 different alloys.

Technological advances in all industries, coupled with scientific research on nickel and its alloys, have greatly contributed to this impressive growth in nickel consumption over the years, the speaker said. From metallurgical laboratories have come a continuing stream of nickel-containing products useful for industrial and consumer-goods applications.

The coupling of the demands of industry with a knowledge of the materials which can match those demands — that is the function of market development engineers.

It is their job to develop new applications in which nickel-containing materials will offer economic advantages over other materials either in terms of lower initial costs or long-term savings resulting from longer life, less maintenance or a more pleasing appearance and, hence, greater sales appeal. But their job does not stop there. They also assist industry in applying nickel-containing materials to new products, and, finally, they even help promote the sale of the products in the market place.

"Making markets for nickel is quite a bit different from making markets for soap or automobiles," Mr. Clarke said." As I have indicated, the ultimate consumer is in most instances many times removed from the nickel industry, for nickel reaches the consumer market not as a pound of nickel but an integral part of a product in which it has very often completely lost its identity. Thus, there are many 'Inco customers', as it were — the immediate customer (the company purchasing nickel to make an alloy steel or to plate bumpers or whatever) and his customer (the manufacturer who purchases the nickel-containing material) and even his customer's customer (the retailer who sells the products made of this material). International Nickel's market development program is, then, not one of assistance merely to direct or even indirect customers, but to users of nickel in all forms.

"This program of building nickel markets by assisting nickel users with materials advice, technical help and promotional support is world-wide in scope. Inco and its distributors have offices and technical personnel in key industrial areas from New York to Tokyo, from Melbourne to Dusseldorf, from Toronto to Sao Paulo. Whether he is in Chicago or Bombay, Zurich or Johannesburg, the market development man, almost

Thompson Hunter Bags Big Wolf

Murray McKenzie

Two Thompson Incoites, Charlie Hawkins of the refinery and Ron Rowe of the smelter, spotted a pack of five wolves while hunting near Joy Lake, about 28 miles from the town. At a distance of 60 yards Ron shot one through the head with his .22 automatic. The rest took off like lightning into the tall timber. He's going to have the head mounted and the hide tanned for a rug.

Fifty members of the Central Ontario Purchasing Agents' Association made a tour of the Inco plants at Copper Cliff and in the evening were entertained by the Company at dinner in the Mandarin Hotel. Head table guests shown in the above picture include from the right, Inco assistant general purchasing agent J. Colquhoun, COPAA past president A. V. Wake, Inco general purchasing agent B. M. Forsythe, COPAA president George Fuller, K. H. J. Clarke of Toronto, the speaker of the evening, and, between two COPAA members, Inco purchasing agent O. E. Boucher.

Thompson Gardening Champs Receive Their Awards

First prize winners in the 1964 better homes and gardens competition annually sponsored by International Nickel at Thompson are shown above: on the left, Mr. and Mrs. Bert King (most improved property); on the right, Mr. and Mrs. R. O. Wilcox (best lawn); front centre, Mrs. I. Ingebrigtson (best garden) and Mrs. W. E. Chaddock (best flowers). Centre, standing, is H. W. Peterson, who presented the awards on behalf of Inco at ceremonies attended by all the prize-winners in the municipal building.

always a native of the country in which he is active, is a specialist with a high decree of expertise."

Market development activities, the speaker continued, are supported by a group of application engineers. Each application engineer is a member of a team which specializes in particular industries. Industries receiving special attention include aircraft and missiles; architecture; consumer products; power; chemical; construction and machinery; shipbuilding and marine; petroleum and the various process industries.

The application engineer's duties may include help to a nickel user's research or production staff; providing scientific information to a local or national technical society; giving advice — including engineering specifications and data — to new product manufacturers, or providing market information for a new or existing product line.

He may uncover opportunities for the development of a new nickel material, a new and more economical manufacturing process or even a new product from either International Nickel's or customers' research laboratories. Or perhaps the result of the application engineer's assistance may be a better use for a nickel-containing product or a better, cost-saving production technique and thus a better, cheaper product for the final consumer.

On the spot market development representatives have a broad knowledge of materials and industries and their interests range over the whole industrial complex in their localities. They serve nickel users by providing technical and marketing help. They act, in many cases, as a source of ideas for product and market development.

"The combined talents of these people help to determine marketing plans, not only for immediate action, but also plans and marketing objectives for the next five, 10 or 15 years," Mr. Clarke said.

Priority marketing plans — there are some 100 of these at the present time, all calculated to increase nickel use — receive immediate attention. Before each one is formally adopted as a marketing objective, before application engineers, market development representatives and all pertinent departments proceed to implement the plan, the ground-work is carefully laid through market research and analyses. If the plan involves a new material or a new product design, essential technical data, based on product research, are prepared.

Armed with such pertinent information, market development personnel can offer a particular industry data based on market research, technical help, and also co-operation in publicity and advertising.

Mr. Clarke concluded his address by citing several outstanding examples of the success of Inco's marketing technique. One was the development and acceptance of 9% nickel steel for storing and transporting liquefied gases under pressure at extremely low temperatures. Another was the development two years ago of a lightweight nickel stainless steel tank trailer; today hundreds of tank trailers based on the original Inco concept are being built for the trucking industry in North America and overseas.

Chester Maleczko

A recent Frood pensioner, Chester Maleczko was born in a village in Poland. His father was a carpenter. The family moved to Moscow where Chester attended school and then became a carpenter also. His early recollections of Moscow are of a reasonably happy life. "We got along fine then," he said.

Chester Maleczko

Chester came to Canada in 1927 and worked on construction out west for three years. "My first job in Winnipeg paid 11 cents an hour," he recalled.

Coming to Sudbury in 1930 he worked on construction and in the bush until starting at Frood in 1935. During the past 20 years he had worked underground on motor crews; earlier he was a driller.

Chester was married in 1921 but his wife died in 1946. His son Eugene is an electrician at Garson and his daughter Annie lives in Sudbury. Three grandchildren complete his family.

Taking care of his small apartment house in the Donovan section of Sudbury keeps this new pensioner just about busy enough and he is a happy man as he relaxes in retirement.

Visitors From Germany Saw Frood Operations

Dr. Wilhelm Temme, president of one of Germany's great stainless steel works, and Dr. Erik Volk, director of Inco's nickel information bureau at Dusseldorf, were keenly interested visitors at Frood mine. Frood-Stobie superintendent S. J. Sheehan is shown explaining to them special design features of the 72-inch folding scraper, made of manganese steel, in a slusher trench on 1000 level. From left to right are T. M. Goetz, assistant vice-president and general manager of Inco's Ontario division, Dr. Volk, Dr. Temme, and John McCreedy, manager of mines. The slusher operator in the background is Alex Yankowski.

John Luptak

When the Orford process was moved from Port Colborne to Copper Cliff in the early thirties, John Luptak came with it. He had joined the Company in 1929.

Now retired on an early service pension John was a dependable smelterman who enjoyed his work and did it well. He was an electric furnace boss the last five years and earlier worked as a relief boss, skimmer and furnaceman.

John came from his native Czechoslovakia in 1926 and for three years worked the bush in winter and the freight sheds at Fort William in summer. A friend brought him to Port Colborne in 1929 and John declares that was the best move he ever made.

Just before coming to Canada John married Margaret Suja, and brought her over after he got a steady job in 1929. The Luptaks have one son John who is in the winding shop at Copper Cliff. They also have two granddaughters and the mere mention of their names brings a warm smile to John's face.

The Luptaks live comfortably in Sudbury where a fine vegetable garden is a source of much pleasure to John as well as a source of fine produce for the table.

Mr. and Mrs. Luptak

John Luptak is a man thoroughly enjoying retirement and eager to testify to its pleasures.

CORROSION STUDY

The world's largest testing center for studying marine corrosion of metals, woods, plastics and paints is operated by The International Nickel Company, Inc., at Harbor Island, North Carolina.

Win Inco Awards

Rene T. Dionne

Garson mine superintendent Bruce King did the honors for the Company at Sheridan Technical School commencement exercises, presenting the $100 Inco scholarships to the students attaining highest proficiency in the mining option of the general course for grades 11 and 12. He is shown on the left in this picture, congratulating the grade 11 winner, Jorma Hannila; in the centre is the grade 12 winner, Robert Marunchak.

Mrs. Marcel Cayen, whose husband is one of the younger new members of the Sudbury District chapter, said, "I just love roses." Marcel is a plate-worker at Creighton, they live in Lively.

New Members' Wives Honored

In the Sudbury District and at Port Colborne and Thompson the wives of new members of the Inco Quarter Century Club were honored along with their husbands when each received a dozen red roses to mark the completion of a full 25 years with the Company.

The ladies reacted traditionally. They were "surprised", "thrilled", "delighted", and deeply appreciative of being remembered.

There were 252 new 25-year men this year, 239 in the Sudbury District, 12 at Port Colborne, and one at Thompson.

Along with their roses the wives received a letter signed by assistant vice-president Gaetz, nickel refining division manager Koth, or assistant vice-president Todd, expressing the Company's appreciation of the part they had played over the years in establishing the fine record of their husbands.

"In honoring this distinguished group of long-service employees," Mr. Gaetz wrote, "we are mindful of the important contributions made by their wives, whose interest and help 'behind the scenes' is a vital factor in our day-to-day operations and in the overall success and progress of our Company. We like to think of you as 'the other half of the team'."

Picture stories reporting the dinner meeting of the Manitoba chapter on November 4 and the Port Colborne chapter on November 5 will appear in the December issue of the Triangle.

Mrs. Moro was quite thrilled at receiving her roses. Her husband Aurelio works on the tailings line at the Copper Cliff mill. Their home is in Sudbury.

(1) Mrs. Griffin was as pleased with her roses as this picture would indicate. When the Triangle called she had just finished baking her quota of apple pies for the Quarter Century Club dinner. She also helped serve them later. Her husband Ed is a garage mechanic at Clarabelle Open Pit. (2) Mrs. Allison remarked how nice it was that the Company also remembered the wives and that Mr. Gaetz sent his personal congratulations along with the roses. Her genial husband Butch is a well-known first aid man at Stobie mine. (3) "I was really thrilled when they arrived," smiled Mrs. Altman of Sudbury. Her Quarter Century Club husband Richard works at Garson mine where he is with the tramming crews.

(1) At Thompson Mrs. Villeneuve had the roses all to herself, since her husband Lucien was the only new member to be christened in the Manitoba chapter. He is a general foreman at the mine.
(2) At Port Colborne Mrs. Andy Cahoe was almost as pleased with the lovely long-stemmed roses she received as she was proud of her husband joining the Quarter Century Club. Andy is a sampler at the Nickel Refinery. (3) "It is so thoughtful of the Company to remember the wives this way," said Mrs. Walker. Her husband Maurice is a foreman in the anode department. (4) Mrs. Ruzyki loves arranging flowers and obligingly demonstrated this talent when the Triangle called to photograph her. Husband Walter works in the storehouse at the Nickel refinery.

MR. AND MRS. TUCK IN THEIR LAKESHORE HOME AT PORT COLBORNE.

Saw Major Changes At Port Colborne

There was general regret at the retirement on May 1 of J. Howard Tuck, manager of the Company's nickel refining division at Port Colborne, who was forced by reasons of health to step out of active service at the age of 54. It is good to report that rest and relaxation have since brought about a steady improvement in his condition.

A Port Colborne boy, son of a jeweller whose business is still carried on by another son Fred, Howard Tuck went to work in the town's leading industry in 1936, rose to become its manager in July 1961.

He was identified with all the major developments in the nickel refining division during the past 25 years, including such major changes as the use of chloride-bearing electrolyte and the electrolytic refining of matte anodes. He was also closely associated with the design and start of the Company's nickel refinery at Thompson, to which he made several extended trips in a consultant capacity during its time of trial and tribulation.

He graduated in mechanical engineering from Queen's University in 1931 to be greeted by the depression, but found work as an industrial engineer until joining Inco at Port Colborne as a machinist. He became superintendent of the monel shop then operated there for the manufacture of boilers and water heaters. During the war it produced bullet-proof tanks for Fairmile patrol boats.

After the monel shop was closed down in 1944 Mr. Tuck filled a series of positions to gain general plant experience, then in December of 1946 became superintendent of the electrolytic department. He was appointed assistant to the manager of the division in 1956, assistant manager in 1959 and manager in 1961.

Actively interested in the affairs of his home town he has served as secretary of the Boy Scout association, member of the board of Port Colborne Hospital, and president of the Lions Club. Golf is his favorite recreation. His friends know him better as Dick, a nickname he picked up in boyhood.

He was married at Toronto in 1932 to Rhea Wright, a nurse. Their daughter Gail is Mrs. Nick Krasniuk of Toronto, who has one daughter. Their son, Dr. J. Richard Tuck, is at present engaged in post graduate studies in psychiatry at Upsala, Sweden.

Fred Wood

Fred Wood and his wife Myrtle are comfortably settled in one of Sudbury's modern high-rise apartment buildings overlooking Trout Lake and within short driving distance of their summer home on Lake Ramsey. Fred is a recent pensioner from Copper Cliff where he had been employed since 1937.

Born near Ottawa 59 years ago Fred attended agricultural college at Kingsville, eventually became a tradesman instead. He spent a year in Hudson Bay Co. stores in Alberta, then returned to Ottawa in 1926 and worked in several garages until 1934. Next came a

Mr. and Mrs. Wood

two-year stint underground at the McIntyre after which, in 1935, he came to Sudbury.

Fred worked in the service department at both Pawson's and Davidson's garages, and also with Smith & Travers and Dominion Bridge before starting with the mechanics at Copper Cliff in 1937. He went into the substation in 1941, then in 1956 transferred to the machine shop and worked there until retirement.

Myrtle Tanner and Fred were married in 1936. Their son Grant is in Toronto and daughter Dawne (Mrs. P. Belcourt) in Sudbury. Granddaughter Debbie is their pride and joy.

Eldon Severin

When Eldon Severin developed heart trouble on top of a bronchial condition he was glad to accept his doctor's advice to take a disability pension.

He had been with the Company since 1930, the last 25 years as a skimmer on the converters. Earlier he worked with the fitters and on operations in the concentrator at Copper Cliff. "I worked for Alf

Mr. and Mrs. Severin

Wulff in the converters when I first went there," said Eldon.

He was born at Pembroke in 1908 and was employed on a section gang and in a quartz quarry for a time. Coming to Sudbury in 1929 he was with Fraser-Brace on the Copper Refinery construction before starting with Inco.

Eldon married Annie Burton in 1936 and they have a daughter Florence (Mrs. D. Kerr) and four sons, Orville, Earl, Harry and Denis, all of Sudbury. They have three grandchildren.

The Severins have lived in the Gatchell area for 25 years and have noted many changes there in that time. Fond of hunting, Eldon is trying to figure the best way to continue that sport without doing too much walking.

Long May Their Lums Reek!

Four generations of a long-established Copper Cliff family well-known for its love of Scottish traditions are represented in this picture; John Livingstone, over 86, retired on Inco pension in 1948; his son John, a member of the Copper Cliff police department for 35 years; his grandson Allastair, in his 10th year with the Company; and his great-grandson David, a bonnie bairn of 3½ months. Long may their lums reek!

Double Feature at Copper Cliff Plant

The Copper Cliff reduction works came up with a safety double feature last month. First was the installation of their new attention-getting safety board, located at the inside entrance to no. 1 changehouse. Complete with animated animals it indicates the relative position of each department in safety work and is providing a daily conversation piece for many of the men. The second feature came a few days after the board was unveiled with the announcement by safety superintendent M. E. Young that the Copper Cliff smelter had worked over 1,000,000 accident-free hours — a great feat for so vast and complex an operation.

On hand to offer his personal congratulations was Inco general manager T. M. Gaetz who is keenly and actively interested in every aspect of safety. With him on the left in the above picture are reduction works manager R. R. Saddington and safety engineer Al Clarke, on the right superintendent of smelters J. N. Lilley.

The smelter boys are adding to their record at the rate of about 20,000 hours a day and have every intention of shortly topping the 2,000,000-hour mark. Their present record began on August 4, 1964, and passed the 1,000,000 hours on September 21.

A typical summer evening's sport at Trottier's raceway near Chelmsford. Ivan Jewitt, on the right, is driving with Sir Royal Wolf; Roger Trottier, on the left, is challenging with the fast chestnut Barney T, while Come Trottier, Roger's dad, and Jim T. Gratton are satisfied with the show position.

Harness Horses Are Jewitt's Joy

No novelty to the good burghers of Lively but somewhat a surprise to the visitor in that smartly urban community is the sight of a harness horse pacing briskly down the main street on a winter's day with rubber-tired cart and driver in tow.

The young man with a firm grip on the reins is Ivan Jewitt, clerk in the shops office at Copper Cliff and a horse fancier since long before he could keep his seat on a sulky.

He lives in Lively, with his parents, Mr. and Mrs. Wilbert Jewitt; his father, a 28-year Inco man, works on surface at Creighton mine.

During the winter months Ivan keeps his pacer, Phillippe T. Guy, at the old Anderson farm half a mile down the road, but in the summer he's stabled at the Trottier raceway out near Chelmsford.

The five-year-old Phillippe is quite a problem to Ivan, who has had him since he was two. He has lots of spirit and heart but he's injury-prone and not as fast as his Kentucky breeding would indicate. Ivan thinks he should be switched from pace to trot, but that's a long training job since a trotter, with no hobbles, has to be brought up slowly to speed. Ivan will probably part company with Phillippe and get himself another horse next spring.

Born in Sudbury, Ivan as a youngster spent the summers on his grandfather's farm at Iron Bridge and soon took horses as his lifetime hobby. As a youth he got to jogging Chappy Belanger's trotters at Azilda, and there learned how to care for and handle harness steeds which he has always preferred to the gallopers.

Up on the seat of a racing bike, with a smooth-striding pacer thundering down the track to score, Ivan gets his biggest thrill, whether it be just a friendly joust of a summer's evening out at the half-mile Trottier track, or a heat in one of the big harness meets at Renfrew, Ottawa, Peterborough or London.

A licensed driver, he has won several of the big ones. Last year with King's Messenger, a classy horse owned by Sudbury hotelman Roy Ballentyne, he had 17 wins in 22 starts. In the Joseph E. Seagram Stakes at Renfrew they were the only driver and horse not from the fast raceways at Toronto and London but they paced the mile in 2:12 and won the $800 purse, the trophy, and a pair of blankets. At Gore Bay they set a new track record of 2:14, and at Peterborough they were clocked at 2:11 in a three-horse photo-finish.

In his red and white silks Ivan is one of the top drivers in the regular meets at Chelmsford, North Bay, the Soo, Gore Bay, and Burks Falls. He says there are some very good horses among the average of 30 or so that travel this local circuit. Often in the winner's circle is Barney T, owned and driven by Roger Trottier of Chelmsford; he had 21 wins in 32 starts this year, paced the mile in 2:09 at London.

If he gets his wish Ivan will someday have his own little estate with a half-mile track and a stable of good top horses. He is starting to build now with a mare, Merrywood Girl, in foal by King's Messenger. A U.S. import, she has paced the mile in 2:08. A good local horse costs about $1,500, a bike $250, harness and hobbles another $250.

Ivan is 24 but as yet hasn't given a thought to marriage. If he ever does, she'll have to like horses.

Harness horses have been Ivan Jewitt's hobby ever since he spent his boyhood holidays on his grandfather's farm at Iron Bridge. Here he is with his own pacer, Phillippe T. Guy.

Port Colborne's Paint Gang 19 Years Without Lost-Time Accident

Like a beacon the safety record of the paint gang at the Nickel Refinery stands out for all to see. For more than 7,000 days, better than 19 years, this gang of some 15 to 30 men, has worked accident-free, and foreman J. Laki takes great pride in their achievement. "And there is no reason why we shouldn't go another 19 years," he said, "if we continue to observe the rules of safety."

Proudly posing with a sign proclaiming their fine feat are almost all the gang. Back row, left to right shows E. Smith, W. Pruder, W. MacSweyn, L. Nish, L. Parry, D. Ryan, R. Mirrlees, safety supervisor L. Hobbs; centre row, foreman J. Laki, Nickel Refinery assistant manager J. Walter who personally congratulated the men, P. Shively, M. Beaulieu, H. Moore, R. Caldwell, G. Liddon, A. Vasko, B. Graffi, W. Shaubel, L. Benner, J. Kanyo; seated, F. Hopping, E. Carver, J. MacDonald, E. Castle, F. Langley and C. Gill.

The last compensable accident recorded against this gang dates back to September 4, 1945!

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