

INCO TRIANGLE

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A Crystal Canopy



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George Robb

It's going to take a while for George Robb to realize that he really doesn't have to get worried any more when there's an ice-storm, high winds, lightning, bush fires, and the like that would endanger the electrical department's nearly 500 miles of high tension and trolley wires.

George has retired on service pension from his job as general line foreman at Copper Cliff after



Mr. and Mrs. Robb

nearly 44 years with the Company, 43 of which were spent with the line gang.

"Naturally the elements were always at their worst when we had trouble," said he. "One of the toughest 16 hours I ever put in was back in '35 when there was a break in the Wabagoshik power line somewhere in the 22 miles between Clarabelle and Crean Hill. It was 36 degrees below zero with waist-high snow — and me without snowshoes. I started from Clarabelle at 8:00 p.m. and finally found the break one mile this side of Crean Hill at 12:00 noon the following day. Luckily, that sort of thing doesn't happen today, what with all the sophisticated electronic equipment that pin-points a line break in no time at all."

Raised on the Turbine farm where he was born in 1902, George started with Inco as a fireman on the steam hoists at the O'Donnell road yards in 1924. He transferred to Copper Cliff the same year and fired coal driers until his move to the electrical department as a lineman helper in 1925. His promotion to general line foreman came in 1941, and shortly after that, in 1942, he exchanged marriage vows with Mable Pensome of Lorne township, near Beaver Lake. Their daughter, Beth, is a teacher at Mindemoya high school on Manitoulin Island.

The last 12 months have been busy ones for George. All his spare time has gone into the building of a fine new house on Dlorite Street in Copper Cliff. He and his wife hope to move in to it early in 1968, and then start planning a European tour for 1969.

Birchtree Development Proceeding Apace



Birchtree mine, with a productive capacity of 3,500 tons per day, is one of the new mines in the Manitoba division and is scheduled to go into production the latter part of this year.

As this aerial view shows, the surface plant is practically completed, with changehouse, warm room, offices, shops and other facilities all under continuous roof wherever possible. The 198-foot concrete headframe was built around the temporary shaft-sinking installation, which will be removed early this summer and the

change-over made to the Koeppel hoist and other permanent facilities which will complete the 2800-foot shaft and allow the start of production.

The temporary headframe of the development shaft is seen on the right; development work is going on apace on six of the upper levels, along with driving the ore pass system and opening the crusher station on 2300 level. Wherever feasible, Birchtree development is planned for the use of the most modern trackless mining equipment.

Adolph Cretzmann

There's not much that Adolph Cretzmann — better known to everyone in town and at the mine as Kaiser — doesn't know about the history of Creighton. He's lived there for all but one of his 65 years.

Retired now on service pension, after nearly 37 years with the Company, Kaiser drew his first pay cheque from the Canadian Copper



Mr. and Mrs. Cretzmann

Company, which operated the mine there in 1917 when he started in the No. 2 rock house.

He changed jobs twice in the next few years, first to deliver groceries, and second to drive Ted Marsh's seven-passenger jitneys to and from Sudbury. "In the winter of '28 I got stuck in the snow just out of town," recalled Kaiser. "It blew a blizzard all night, and next morning when we went out to

bring in the car, it wasn't to be seen. We skied over it several times before we finally located it under the snowdrifts."

Kaiser returned to the mine in 1930 at No. 3 shaft, and since then has worked as a trammer, motorman, machine doctor, shaft repairman, and for the last year of his service, as a cage tender.

His bride of 1930 was Sadie Cox, who died in 1954. Their daughter Margaret is married to Ed Small and lives in New Brunswick with four children. Mrs. Olive Zinkle became Mrs. Cretzmann in 1960; they have an adopted daughter, Bonnie Anne, 9.

It wasn't hard for Kaiser's friends at the mine to select an appropriate parting gift for him, for rarely was he seen without his faithful pipe. At the end of his last shift he was presented with a pipe, together with pipe rack, humidifier, and a supply of tobacco.

Favorite camping spot of the Cretzmans for the past six years has been Manitoulin Island. "It's a lovely spot," said Kaiser. "I think maybe we'll be moving to the Mindemoya area."

Stainless Paint

A newly developed stainless steel paint is applied to transmission towers, smoke stacks, water tanks and bridges to protect them from corrosion.

Inco Proposal Chosen By Indonesian Govt.

Toronto, Jan. 29 — Henry S. Wingate, chairman and chief officer of The International Nickel Company of Canada, Limited, made the following statement today:

"We are pleased to confirm that an initial agreement was signed today (Jan. 29) between the Government of the Republic of Indonesia and International Nickel following the decision of the Indonesian Cabinet to accept the Company's proposal regarding nickel deposits on the island of Sulawesi (Celebes)."

The Company was one of a number who responded to the Government's invitation for proposals covering the exploration and possible development of these potentially important deposits in Indonesia.

"Under our proposal we will be moving as rapidly as possible with a comprehensive program for exploration of the deposits and, if justified, undertaking metallurgical and other work looking toward their early development."

"The area in which the work will be conducted is relatively remote and the Company will be working in cooperation with the Indonesian Government and others to facilitate the establishment of necessary supporting facilities."

FINALLY MADE IT

Tombstone dealer (after several futile suggestions): "How would just a simple 'Gone Home' do for an inscription?"

The Widow: "I guess that would be all right. It was always the last place he ever thought of going."

STYLE LEADER



With a gleaming stainless steel penthouse atop its headframe, Copper Cliff North has emerged as a style leader among Inco mines. Besides presenting a very attractive appearance, the stainless steel cap will greatly reduce maintenance costs from corrosion caused by the constant flow of warm moisture-laden air rising from the shaft. Others of the larger new Inco headframes will be given this everlasting beauty treatment.

Inco Family Album



Completion of the Thompson Golf Club's 9-hole course can't come too soon for Jack Wilson. An ardent golfer, and one of the newly formed club's charter members, he will help with instructing the newcomers to the game. A flotation operator at the mill, he came from Prince Albert in 1963 to join the Company. Jack and his wife—formerly Eileen Mick of Sudbury—have an active young family; Jackie is 5, Robby, 3, Lisa, 1, and Timmy, 4.



It's indeed a large happy family that belongs to Copper Refinery refractory repairman Gerry Coupal. A native of Sturgeon Falls, and an Inco employee since 1947, Gerry met his wife Barbara in England while serving in the Canadian Army. They were wed at Surbiton, Surrey, in 1944. In the back row are Robert, 14, Copper Cliff tuyere puncher Raymond, 19, Copper Refinery machine shop apprentice Richard, 20, and, on either side of their dad, the twins Edward and Edith, 17. In the foreground are, Maria, Caroline (Mrs. Marcel Majeros), and Mark, 9.



This is the interesting family of Stobie general fitter Fern Jalbert. Fern and his wife Georgette left the beautiful Matapedia Valley for the Sudbury area in 1950, when Fern became a driller at Frood mine; he moved over to Stobie four years later. Living in the wide open spaces of Hanmer, the Jalberts are a family of ardent fishermen and hardy motor-toboggan enthusiasts. In the back row are, Gerald, 14, Pierrette, 12, and Jean-Claude, 20. In front are, Fernande, 16, and Suzie, 3.



Adelard "Red" Morin, a machinist at the Port Colborne refinery, is in his 20th year of service with Inco. He grew up in Quebec's Eastern Townships, and his pretty wife Edith in lower Quebec. They met at a New Year's Eve party in Welland, got married on New Year's Eve five years later. The Morins and their lively family of Suzanne, 13, Louise, 11, Joclyne, 9, Monique, 4, and Luc, 7, reside in Welland.



Both parents in this attractive group are Company employees. Eddie Desanti, a carpenter in the smelter shop, joined the Inco masons in 1952. His wife Marg, who started as a mail room messenger the same year, moved to the tabulating department in 1953, is now with data processing as a verifier. Both natives of Copper Cliff, Eddie and Marg are proud to be second generation Incoites. The three young smiling faces belong to Donna, 5, Bobby, 8, and Debbie, 10.

Physical fitness takes top priority in the lively household of Creighton mill pumpman Steve Rewego. He and his wife Yvonne are both lively YMCA instructors; a brown belt, he teaches judo to a class of 18, while she has a gymnastics class of 62. Mary Ann, 13, and Stephen, 11, attend their dad's classes, and have both earned their yellow belts. Little Brenda, 6, is looking forward to the day when she can join the group. Stan started at Creighton in 1951.



Garson Mine and Copper Cliff Electrical Dept. 1967 Safety Champions



General manager Jack Pigott (right) presented the Inco All Mines Safety Trophy for the Ontario division to Garson mine superintendent Bruce King, assistant superintendent Harvey Bangle, and safety engineer Wayne West. In winning the 1967 championship Garson placed first in all three classes on which the award is based. RIGHT: Assistant general manager of the Ontario division, Gordon Machum, congratulates electrical superintendent Art Prince on his

department's achievement in winning the Inco Reduction Plants Safety Award for the second time in two years. Sharing the compliments were superintendent of electrical power Clayton Robertson, maintenance superintendent Fred Burchell, and smelter safety engineer Graham Byers. On the left is reduction plants manager Jack McConnell.

Victors for 1967 in the annual safety competitions for all mines and reduction plants in the Ontario division, Garson mine and the Copper Cliff electrical department basked happily in the Inco safety spotlight this month when they were presented with their trophies.

It was a particularly sweet triumph for Garson, who could do no better than fourth in the 1966 all mines

competition, won by Creighton. With a determined year-long drive during '67 they managed to nose out Creighton for the top spot. In third place, with a splendid effort, came Crean Hill, followed by Frood-Stobie, Levack, and Murray in that order.

"Garson mine won the added distinction of placing first in all three classes on which the award is based."

safety superintendent Charles Hews said in announcing the results. "They achieved the lowest frequency of all injuries, lost time injuries, and the lowest injury severity. This is the first time that this has been accomplished by one mine since the award originated."

In the reduction plants contest the Copper Cliff electrical department, who were

winners in 1965 and runners-up to the mechanical department in 1966, stepped back into the spotlight by edging out the separation and FBR department for top place in the final standing. Mechanical came third, followed by transportation, converters, the Creighton, Levack and Frood-Stobie mills, reverbs, and Coniston smelter.

Inco Is a Way of Life To Zelinsky Generations

Now in the ranks of Company pensioners, after 32 years of service at Creighton mine, Mike Zelinsky is a member of what he proudly calls "a truly Inco family". His father, Tom, who died in 1953, started with Mond Nickel at the Gertrude mine and later worked at Levack and Creighton. Mike's three brothers, Nick, Pete, and Bill, currently work at Creighton; his only sister, Anne, is married

a family of three: Alex is the father of their two grandchildren, Ruth is a nursing assistant at Sudbury Memorial Hospital, and Mike Jr., 13, attends Lively public school.

The Zelinsky's have lived on their peaceful, wooded, one-acre lot, on what is now called the old Creighton Road, for 27 years. "It wasn't always this quiet," recalled Mike. "When the new road was built my drive to Sudbury suddenly became four miles longer, and the bus that used to pass our door was re-routed."

Mike is looking forward to a winter of rest and relaxation, and, come summer, he plans to spend most of his time tending his large garden and looking after his fruit trees.

Lindsay Hodgins

Though he lives close to the heart of Sudbury, recent disability pensioner Lindsay Hodgins finds

"I bump into so many of my old buddies who've already retired from Frood and Clarabelle open pits, in fact I see more of them now than I did when I worked there. Of course, we have to stop for a little chat, and the time goes by very pleasantly."

Lindsay hails from Shawville, P.Q., where he was born in 1908. Raised on a 400-acre farm there, he turned his hand to railroading before he joined Inco at Creighton mine No. 3 shaft in 1928. Starting with a shovel, by 1935 he had worked his way up to shift boss at No. 4 shaft.

It was one month after his promotion to foreman in 1940 that he had his first heart attack. He returned to work at Frood open pit, became foreman there in 1943, moved to Clarabelle in 1953, and was foreman there when he retired.

He and his wife, Veronica Cain when they were wed in the mid 20's, have a family of four. Joe is a senior stores clerk at Creighton mine warehouse, Ron and Clayton live in Sudbury, and Marilyn (Mrs. Murray Paul) lives in British Columbia. There are already 12 grandchildren on the scene.

Content to relax in his comfortable armchair and pursue his favorite pastime of reading technical books, Lindsay is planning a trip to Vancouver in the spring. "We've just realized that we haven't seen much of Canada," he confessed. "Our holiday travels were usually to the South, but

we're going to see more of our own country now."

John Tamas

When John Tamas started construction work at the Ontario Refining Company at Copper Cliff in 1929, shortly after leaving his home town of Palkusovce in Czechoslovakia, little did he think that he would spend his whole working life there.

Retired now on disability pension, he started in the tankhouse when the plant went into produc-



Mr. and Mrs. Zelinsky

to Steve Wasilchuk of the Clarabelle open pit, and his son Alex is employed at Crean Hill mine.

Born in Levack in 1916, Mike was raised in Creighton and joined the mechanical department there in 1935. He worked at the No. 3 and No. 5 shaft rock houses, and was a picker boss when he became a carloader in 1951. He was relieving foreman at the time of his retirement on disability pension.

Mike married Olga Dosen of Port Arthur in 1940, and they have



Mr. and Mrs. Hodgins

it hard to make a fast trip downtown and back. "I get side-tracked every time," he said with a grin.



Mr. and Mrs. Tamas

tion in 1930, broke his service to make a trip to the old country in 1932, returned in 1933, and was tankhouse inspector in 1952 when he became a dryman.

John married Mary Zelink, of Dubravka, Czechoslovakia, in 1927; she joined him in Canada in 1949.

They have a family of two. Daughter Mary (Mrs. Mike Teac) remained in the old country, and is the mother of four children their Canadian grandparents have never seen. Son John Jr. lives in Montreal.

On the Job at Thompson



On the job in the tankhouse at the refinery Dale Jewett is seen stripping a nickel starting sheet from the stainless steel blank on which it has been plated. After trimming, two stiffening crimps and the familiar Inco trademark will be stamped into the sheet by the big press. Then, treated for bonding, it goes into the plating tanks from which it will emerge after nine days as a cathode of pure electrolytic nickel, about half an inch thick and weighing some 145 pounds.

Dale, a native of Fort Francis, Ontario, joined the Company in 1966, is married with one child.

Key punch operator Mrs. Phyllis Van Drunen confers with her department supervisor, Don Danko, in the IBM room at the Thompson general offices. It doesn't seem to be too serious a problem for these capable people to straighten out.



An old-timer in the Manitoba division, Neil MacAskill joined the geological department one month before the first diamond drill hole intersected the Thompson orebody in February of 1956. He is shown operating a pantograph, producing an enlarged reproduction of one of the multitude of geological maps that have been prepared of the Thompson area.

Neil's home town is Stoney Rapids, Saskatchewan. He is married, counts boating, fishing and hunting his favourite pastimes.



Dramatically silhouetted by the camera flash, stope leader Ted Debin is seen operating a jack-leg drill in the 317 stope on the 1,000 level of Thompson mine. Working beneath the protection of a well screened and bolted back — standard practice in all Inco mines — Ted is a comparatively old hand at the mining game at Thompson, having worked there since 1961. Married, with two youngsters, he hails from Tisdale, Saskatchewan.



Jim Heffernan, pumpman at the Thompson concentrator, is seen here carrying out a regular inspection inside one of the huge grinding units, 12½ feet in diameter by 16 feet long. Driven by a 1,500-hp motor, the rotating mill operates with nearly one half its volume filled with steel rods, 3 inches in diameter by 15 feet long, which pound and pulverize the ore. Due to the grinding action the rods are reduced to pencil-sized pieces and have to be replenished regularly. The mill is protected from the tremendous pounding by its head and shell liners of tough nickel cast iron (Ni-Hard).

Jim left Tipperary, Ireland, to join Inco at Thompson in 1966, is married, and likes fishing and soccer.



GRAND CHAMPIONS: Don Groom, an all-time "great" in Nickel Belt curling, presents the Centennial trophy to NOCA grand aggregate winners Ken Kay (skip), Ralph Shore, Wayne Rodney and Walter Saffic.

KEN KAY VICTORIOUS SKIP IN NOCA GRAND AGGREGATE

With the Copper Cliff Curling Club hosting the event, and four other clubs in the Sudbury area assisting, the 81st annual Northern Ontario Curling Association bonspiel went into the records as a rousing success.

A perfect draw of 128 rinks was sent into play by drawmaster Dick Drewe, and the 'spiel slid smoothly to conclusion like a flawless shot to the button.

Bonspiel chairman Jack Colquhoun and his executive had praise heaped upon them for their organization and arrangements, in-

cluding a wonderful array of prizes, and they in turn acknowledged the aid of many loyal helpers and donors. Fern Crowther was bonspiel secretary.

Over 600 attended the big banquet at the Caruso Club, at which special entertainment added zip to the atmosphere of good fellowship traditional at curling gatherings. NOCA president Doug Gathercole officially welcomed the crowd.

There were 16 curling clubs represented among the visiting brethren, in addition to the 10 clubs in the Sudbury area. Eight rinks

from North Bay headed the visitors, who totalled 128 curlers. There were four rinks from the Soo, four from Elliot Lake, and three from Bradford. Other clubs represented were Hamilton, New Liskeard, Bolton, and Ingersoll.

Among the 10 Sudbury area clubs Copper Cliff entered 33 rinks, Sudbury Curling Club 25, the new Idylwyde club 11, Falconbridge eight, Coniston six, Hardy four, Levack four, Sturgeon Falls and Capreol two each, and Garson one. Twenty-four sheets of ice were in play.

Thrilling Finale in Grand Aggregate

Appropriately enough it was a rink from the host club that carried off the ton honor of the bonspiel, the Sudbury Centennial Committee trophy for the grand aggregate. Skip Ken Kay and his crew of Ralph Shore, Wayne Rodney and Walter Saffic came off victorious after a thrilling battle with one of Sudbury's hottest skips, Chuckie Ross. With a brilliant last rock Ken scored a big three in the ninth to go two up, and he and his men put up a stout defence in the final end to emerge triumphant.

Chucker and his rink of Frank Bell, Bob Tate and Joe Lesar won the Inco trophy in the first event of the first division, while Ken et al won the Doran trophy in the first event of the second division.

Another Copper Cliff rink was a trophy winner. Ego Piccolo, skipping, Albert Rebellato, Bert Hague and Link Canapini, put the skids under W. Panas of Sudbury in the final match for the George Tate tankard.

A rink of schoolteachers from Lively, skipped by George Stephens and including Lou Kehoe, Charlie Tuttle and Don Duggan, came second for the Inco trophy.

Orin Purvis, one of Levack's master curlers, skipped Frank Corkal, Fred Spencer and Vic Romagna to the final of the Cochrane trophy. In the Players trophy the runners-up were Don Dumontelle (skip) and Eddie Trail, Leo Boyer and Jerry Cleaver, of Coniston. Runners-up in the Falconbridge trophy were Art Romanick (skip), Moe Palmaro, Chick McDonald and "Super" Bartuzzi, of the Copper Cliff club.

Grant Henry, a former Copper Cliff boy, brought a rink from Ingersoll and skipped it to victory in the Falconbridge trophy.

Frank Palakovic

The working career of service pensioner Frank Palakovic has ranged all the way from a tender-handed cook to an anvil-pounding blacksmith. Retired from the Copper Refinery after 26 years with the Company, Frank is now concentrating hard on just one thing — "taking it real good and easy."

His home town of Budrovici, Yugoslavia, is close to the Italian border, and he farmed there until he crossed the Atlantic for Lethbridge, Alberta, in 1928. Foundry work in Hamilton and Sarnia followed, and he turned his hand to cooking at Highway 17 construction camps in 1932.

Starting as a mould maker at the Copper Refinery in 1941, he later moved to the electric furnace

charging floor, and to the blacksmith shop in 1955.

A home town girl, Helen Misir, whom he married in 1923, joined



Mr. and Mrs. Palakovic

him in Sudbury in 1939. They have one daughter, Mary, who lives in Montreal.

At the Copper Refinery Athletic Association retirement party at the Caruso Club for recent pensioners, Frank was presented with a gold watch and a copper plaque recording his service with the Company.

Tony Teddy

Concerned with things mechanical for most of his working life, Tony Teddy plans to spend his retirement years in much the same manner — only now he'll be his own boss. He has operated a backyard workshop repair service for outboard motors for many years, and now looks forward with eager anticipation to devoting his full time to the business.

A Frood service pensioner, Tony has worked for the Company for



Mr. and Mrs. Teddy

26 years. "I was born in Niome, Austria in 1902, but I don't claim to know much about the old country because I came to the Sudbury area with my parents in 1904."

Raised on a Long Lake farm, he was swinging an axe from dawn to dark and drawing a wage at age 12.

His acquaintance with auto engines started in 1920 when he worked as a garage mechanic at Espanola. Several years as a mechanic with the large auto companies in southern Ontario followed, after which he returned to the North to work on Copper Cliff smelter construction in 1937, and joined the Company there as a welder in 1942.

During the war he served as a sapper with the RCME, returning in 1946 with his war bride, Emily Ormandy from the Rhondda Valley in Wales, whom he married in 1944.

He returned to work at Inco, and has been a maintenance mechanic at Stobie since 1956.

The Teddys have a family of four, John, Anthony, David and Maureen, all living in Sudbury, together with five grandchildren.

Some 150 friends attended a stag party at the Moose Hall to honor Tony's retirement, and presented him with a purse. "I've put it to good use," said he with a grin. "My new gun and I will be moose hunting next fall."

His Finest Hour

Mayor Dick Dow threw the opening rock at the host Copper Cliff rink to launch the big NOCA meet, with bonspiel chairman Jack Colquhoun and drawmaster Dick Drewe on hand to give him moral support. It's been years since His Worship did any curling, and he was naturally a little apprehensive of the result in front of the big crowd.



He needn't have worried at all. The stone came to rest practically smack on the button, one of the best shots of the whole 'spiel. See the glow of incredulous delight that illuminated the mayoral countenance as he beheld the wonder he had wrought, while Jack Colquhoun, with a faint gleam of envy in his eye, offered congratulations.





A special railway car 95 feet long, with 12 wheels in swivelling trucks at each end, had to be built to transport the huge transformers and auxiliary equipment to Copper Cliff. The car is shown above as it neared its destination

with the first of the two units aboard. En route from Guelph to Toronto the arms on a dozen telegraph poles along the right-of-way had to be moved over to allow passage of the mammoth shipment.

Inco Expansion Calls for Giant Electrical Units

The largest transformers ever supplied to a Canadian industrial customer have been installed at International Nickel's No. 4 substation at Copper Cliff.

The two units have a combined capacity of 600,000 kva. They replace two banks with a maximum output of 118,000 kva, and will transform the new 230,000-volt supply, recently installed by Ontario Hydro, to 72,000 volts for distribution to the Company's plants in the area.

The greatly expanded electrical power capacity is necessitated by International Nickel's program to increase its Canadian nickel production capacity by 100 to 150 million pounds in the next three years.

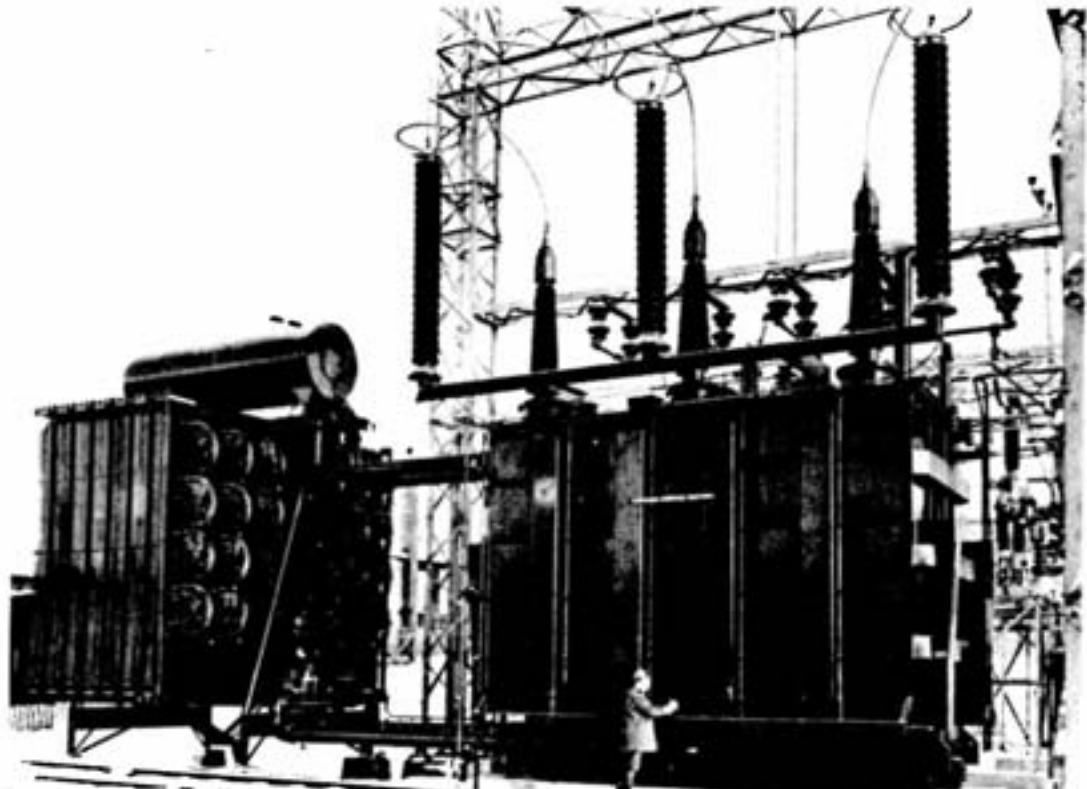
Built by Canadian General Electric Company Limited, the transformers weighed 365,000 pounds each when stripped for shipping. Fully assembled, each unit is some 53 feet long by 20 feet wide and 31 feet high including lightning arresters, and weighs 565,000 pounds.

Because of their size, the giant transformers called for a variety of special equipment and handling innovations.

A three-crane lifting device, requiring installation of an additional 125-ton, 52-foot derrick, was used to manoeuvre the units during assembly at the CGE plant, and for final loading prior to rail transport.

Delivery to Copper Cliff was made aboard a custom-designed railway car built to General Electric specifications by National Steel Car Company of Hamilton. Over 95 feet long with 12 wheels in swivelling trucks at each end, the "depressed centre-well" type flat features a fully-removable left side — which itself must be handled by a battery of cranes — allowing jacks to be placed beneath the transformer unit.

With the unit jacked clear of its mountings, the car was withdrawn and the huge transformer lowered onto rollers for transfer to its permanent location, a concrete pad alongside the railway track.



Enough electrical energy to service an average Canadian city is supplied by this giant new 300,000 kva transformer, one of two recently installed at No. 4 substation at Copper Cliff. Electrician Ray Harryett is seen checking the top-changing switch for voltage adjustment, while on the left electrician Bob Burns is opening a valve to allow oil from the transformer to circulate through the triple coil cooling banks. Over 17,000 gallons of specially treated insulating oil circulates internally in each unit. Atop the cooling banks is a surge tank to allow for oil expansion due to temperature changes. Behind the three tall lightning arresters on the transformer are the three porcelain bushings leading the 230,000-volt input into the unit. On the extreme right is the high voltage air blast breaker which disconnects the transformer in 10 micro-seconds in the event of electrical failure.

The railway car had to be specially constructed, since nothing equalling its size or precise design was available from rail companies or specialty shippers.

Although the Inco shipment was the new CGE vehicle's maiden trip, it will be used for all future deliveries of such large General Electric power transformers to commercial and utility users across Canada.

Inco Has Specialists In Many Categories

... "What kind of men work at International Nickel?" Highly skilled men, for one thing, because mining has become one of the

most sophisticated sciences in the world.

Start with an Inco geologist, for instance. He's the explorer of mineral deposits, and it's his job to find nickel deposits and evaluate them. His work can take him to any corner of the earth or keep him glued to a laboratory spectrometer. Then there's the Inco mining engineer. It's his job to develop, operate and manage mines. He can be an expert in developing new mining techniques, a specialist in rock mechanics, in mine design or safety.

An Inco chemist's job is simply

to defy nature — to break apart natural compounds that have existed for centuries and to extract the usable nickel. Then the Inco metallurgist, the expert on the behavior of metals, spends his time either in perfecting extraction techniques or in modifying and developing alloys that do the jobs industry needs done.

All of these men are specialists. And there are more — including thousands of skilled miners and reduction and refining plant employees — all working together to bring more nickel from the earth to meet the needs of the modern world.



This is the other life of Levack mine sandfill boss Cecil Terry. On the rounds of his Levack township trapline, the licensed trapper is seen setting a Cornibear humane trap in the feedbed close to one of the 36 beaver houses on and around Moose Lake that provide him with some 60 prime pelts annually. A slight touch on the tempting poplar bait and it's quick curtains for Mr. Beaver. The top of the trap is lowered to six inches below the bottom of the ice.

Levack Township Trapline is Healthy Hobby of Cecil Terry

At mention of the word trapper, a mental image appears of a bearded character, striding through the bush on snowshoes, shoulders laden with rifle, pack and pelts.

This picture may still hold true in some areas, but certainly not in the 36 square miles of Levack township which is the winter domain of licensed trapper Cecil Terry, who in everyday life is a sandfill boss at Levack mine.

"Things have changed—and for the better," declared the chunky 50 year old miner. "It wasn't so

long ago that I was spending 11 hours walking the 15 miles around my trapline."

Then came the answer to the bush traveller's prayer, that spunky little power pack that has made the dog team almost obsolete and opened up vast areas of new country to sportsman and trapper alike—the motor toboggan.

Cecil has two of the machines. "I bought a big snow cruiser in 1963, and then won a little runabout in a raffle the same year," he explained. "Now the big one

With 15 rugged miles to cover on the round trip of his trapline, Cecil bought a motorized toboggan when they first came out. However, just to be on the safe side, he never sets out on his machine without his trusty snowshoes, on which for many years he slogged through the bush. He carries his rifle in case he should meet up with a wolf pack that of late has been shadowing his trail.

sits idle while I use the little one all the time, it's easier for me to manhandle when I'm alone on the trapline."

Became a Trapper at 14

Trapping is almost second nature to Cecil. The son of a lumberman, he was "born in the bush" outside of Bracebridge in Southern Ontario, set his first traps and learned to skin mink, muskrat, red squirrels and rabbits when he was 14. "The first mink pelt I sold brought \$8.00," he recalled. "Nowadays they sell for three times that much."

That skilful, shortsighted master builder and engineer, which is as symbolic of Canada as the Maple Leaf—the beaver—is Cecil's main quarry, and the 36 beaver houses on and around Moose Lake provided him with 66 pelts last season. Two miles west of Levack, the lake is some four miles long and barely more than three quarters of a mile at its widest.

"There's beaver to be had a lot closer than that though," said Cecil. "They started playing games and building dams on Grassy Lake Creek, right in downtown Levack, not so long ago. The town asked me to take them out of there and I caught 10 of them, but they're still in business."

Cecil's trapping activities start on November 1st with the opening of the mink and beaver season, and carry through to the end of April. During those six months he makes the rounds of his traps three times a week, after his shift



at the mine, and on both days of the weekend.

"It's a fine recreational hobby," enthused Cecil. "Out there in the fresh air the cares of the working day all blow away. There's nothing like it for working up a healthy appetite, and when I turn in at night my head hardly hits the pillow before I'm sleeping like a log."

Musk rats Buy The Gas

There are other benefits too. A well-fleshed and dried beaver pelt can bring anywhere up to \$30.00 at the monthly Ontario Trappers Association fur auctions at North Bay. Price varies with size, starting with the "super", of which the length plus the width must be 72 inches or more. At the bottom of the range is the "small", which measures a total of 40 to 44 inches. Red fox pelts bring \$10.00, otter \$20.00, mink \$24.00, and the lowly muskrat \$1.50. "The rats pay my gas bills," said Cecil with a grin. "I caught more than a hundred last year."

Currently he's trying to outwit a pack of five wily wolves. "Several times after retracing my trail I've found that they've been following me," he said. "I've got traps out for them with beaver carcasses in boxes for bait. Those wolves are not only cunning, they're also mighty strong and determined. A little while back one of the bait boxes—it must have weighed all of 65 pounds—was lifted by one of the pack and carted off over the hills. Reading his tracks, I could see where he'd set it down every 15 feet or so to take a breather." There's a \$25.00 bounty on wolf, plus \$15.00 to be had for the pelt.

What does the trapper's wife think about her husband's busy sideline? Vera Terry, a native of Beaverton, Ontario, whom Cecil married in 1942, the year after he started with the Company at the Levack mine rock house, has no complaints. "It keeps him happy, healthy, and occupied," she said. And besides, how many women have a sheared beaver coat, the

Three stages in the life of a beaver pelt are displayed here by trapper Cecil Terry and his wife Vera. On the left, nailed with fur side to the drying board, is a "blanket"-sized pelt which after four days' drying in Cecil's basement will be ready for shipment to the monthly fur auction at North Bay, where it will sell for around \$30.00. Centre, showing its richly glowing sheen, is a pelt ready for shipping, and right, enhanced by its charming model and owner, is a sheared beaver fur coat made from 14 prime pelts that were trapped and prepared for the furrier by her husband.



Received Canadian Centennial Medal



Among Sudbury area recipients of the Canadian Centennial Medal, in recognition of their service to Canada, were 10 members of the militia and a Legionnaire who were presented with their distinguished decoration at a colorful garrison parade held at the Sudbury armories. Eight of the group, shown above, are Inco employees:

Front row, from the left, W/O 2nd Class John Cram; W/O 2nd Class and acting RSM of the Irish Regiment, Cyril Macra, a stope leader at Garson mine; Lieut-Col. Les Ramsey, commanding officer of the Sudbury Irish, metallurgical supervisor at Copper Cliff; W/O 1st Class Lloyd Hartley,

diamond drill boss at Garson mine; W/O 2nd Class Pipe Major John McPhail, instrumentman at the Iron Ore Plant;

Back row, Staff Sgt. Derald Balon, Copper Cliff mechanical department; Sgt. Malcolm Stenbridge, a stope leader at Creighton 5 shaft; Legionnaire George Clare, foreman with the Copper Cliff mechanical department; Sgt. Linus Hearty, Frood maintenance mechanic; and Sgt. Jack Smith, furnaceman at the Copper Refinery. Missing from the picture, the 10th militia member who received the medal was Sgt. Margaret Anne Medynski, Canadian Women's Army Corps.

pelts for which were provided and painstakingly prepared and matched by a thoughtful husband? Of the 30 skins that were shipped to the furrier for the coat, 14 were selected and went into the final product.

Son Started the "Business"

Mrs. Terry also proudly displays a pair of beaver mittens that were prepared by their son Mervin, the lad who originally took over the Levack township trapping license in 1962, and enlisted his dad as a helper. Mervin is now superintendent of a boys training school in Hagersville, Ontario, but his dad has carried on the family "fur business".

Most nights of the week, Cecil can be found busily at work with his knife and his scraper in the basement of his home on River-view Road in Levack. His nimble fingers can skin, flesh, and nail up a beaver pelt in the familiar oval shape in about an hour. A muskrat takes 10 minutes.

The carcasses of his catch are not wasted. There's a lot of meat on a 65 pound beaver, and what he doesn't use for wolf and fox bait goes to a friend who raises Husky dogs.

Cecil's beaver quota, which is set by the Ontario Department of Lands and Forests, amounts to about two per season from each of the live beaver houses in his township. He doesn't see any end to his supply of fur. "It's a far cry from the late '20's and early '30's," he explained, "when, on account of over-trapping due to prices as high as \$65.00 a pelt, and a beaver disease called teleremia, their numbers were seriously reduced. They came back after trappers were limited to a take of 10 during a

season, and in 1946 the quota was raised."

The end of the trapping season doesn't mean the end of outdoor life for Cecil, who spends most of the summer at the family camp on Otter Lake, some seven miles west of Levack. "We get some pretty good fishing there, but with the wife along I always come off second best," the trapper confessed with a shake of his head. "I guess I'm really more at home on the ice and snow of Moose Lake."

Paul Beaudry

"There's more to looking after a garbage dump than most people imagine," said Paul Beaudry, who has retired on service pension after 20 years with Inco. "Unloading the trucks at the right time at the right place can make all the difference, and just what goes



Mr. and Mrs. Beaudry

where is also important." Paul has been king of his own domain at the Copper Cliff smelter disposal area for the last 12 years.

Born on an Azilda farm in 1903, he was swinging a broadaxe at the age of 14, hewing railroad ties at Poleyet. Nineteen years as a trackman preceded his move to Inco and the transportation department at Copper Cliff in 1940. After breaking his service twice, he made

his final return to the company in 1947, and worked on the smelter tracks until his move to the dump.

Paul and his wife, Therese Rouleau when they were married in 1925, have been blessed with a family of five boys. Rudolph works for a contractor at Thompson, Aurilien is a driller at Frood mine, Maurice a brakeman at the Copper Refinery, and Roma a nipper at Garson mine. Marcel lives in Sudbury. A healthy total of 32 grandchildren all live within easy visiting distance.

Paul admits that he's enjoying

the undisturbed comfort of his rocking chair, and that it's nice to be able to stay up late playing euchre and not have to worry about getting up for work next morning.

HEARD THIS ONE?

A foreman watched a carpenter working on a house and asked him why he threw away some nails.

"The heads are on the wrong end," the carpenter replied.

"Dumbell!" yelled the foreman.

"Those are for the other side of the house!"



"YOU REMEMBER YOUR FATHER, CHILDREN"

Shirley Beach and the family, Maureen, 15, Allyson, 7, and Noel, 19, staged this "homecoming" for Reg after his hectic Centennial year.

Now He Can Panel His Rec Room

After more than a solid year of frenzied activity that soaked up his spare time like a sponge and often reduced his family life to little more than a nodding acquaintance for days on end, Reg Beach is back in the husband-and-father business, and mighty glad of it.

As general chairman of the Sudbury Centennial Committee he led a directorate of 17, along with 15 sub-committees—a total force of 137 people—in planning and staging Sudbury's glowingly successful year of Centennial celebration. His right hand man was co-ordinator Ernie Cressey.

During the memorable year more than 80 special events were staged, in all of which Reg and his enthusiastic co-workers were more or less directly involved. He attended as many as nine committee meetings in one week, handled countless requests from local groups for assistance in their special Centennial projects, appeared on a weekly television show to keep the public informed of the activities, was here, there, and everywhere.

Looking back, Reg picks the Military Tattoo and the RCMP Musical Ride as the top single drawing cards—they both packed the arena—and the five-day visit of the Confederation Train was another big highlight with its 55,000 attendance. But his choice as a real crowning community effort was the July 1st parade.

Now he's getting the official records in shape, and sending out 435 scrolls, 55 medallions and a dozen plaques to citizens who distinguished themselves in Centennial Year. "Then it will be over, thank the Lord," he says with a contented sigh.

An accountant at the Copper Cliff mill with 18 years at Inco, Reg holds the rank of major in the militia. He resigned from the Sudbury Irish Regiment after 22 years of accredited army service, to leave himself free for his heavy Centennial responsibilities.

First thing he plans to do is panel his recreation room, a project he started 18 months ago but soon had to abandon. When it's finished, a place of honor will be given to a framed letter sent to him by Grace Hartman, Sudbury's Centennial mayor, which says in part: "We have had a wonderful year, full of exciting and worthwhile projects and events. We needed someone with imagination, foresight and real dedication to carry the City through this momentous year. We were fortunate that you were willing to be that person."

Creighton Mine Jubilant Over Its 22nd Major Safety Award



Although major safety awards are certainly no novelty at Creighton—they've won a total of 22—it can't happen too often to suit mine superintendent Earl Mumford and his big crew.

Not having hit the jackpot since mid-1966, the boys were getting pretty hungry by last December, and with another million safe man-hours well within their reach they made no mistake in nailing it down on the 23rd.

Superintendent Mumford called together a representative group and asked them to convey his congratulations to every man in the mine. He's shown above shaking hands with mechanical foreman Jack Parry. In the group are:

Front row: personnel officer Jim Martel, yardman Jim Hutton, mechanics Allan Keller and Red Wilson, sandfill man Bill Kasechuk, drill fitter Taisto Waine, electrician Bill Hansen, slusher-

men Dave Morrison and Eddie Ungurs, safety engineer Jim Byrne;

Back row: sandfill man Carlo Wittrack, electrician Mal Davies, slusherman Joe Peczak, engineer Jim Nicholls, slusherman Dietrich Kohnke, timberman Morley Reilly, salvageman Ross Prood, longhole driller Rudy Snel, salvageman Mike Saftic, school stope instructor Bob Peacock, slusherman Fritz Braun.

Stan Noga

With more time on his hands than he knows what to do with, since he retired on service pension from the Copper Cliff smelter, Stan Noga would like to make a trip back to his native Poland.

Copper Cliff smelter nickel reverberatory building.

Skimming and tapping filled the years until 1965 when Stan moved to the lime house to spray slag pots prior to their trip to the furnaces to be filled.

He and his wife have one

daughter, Helen, the wife of Copper Cliff smelter maintenance mechanic Tony Worobec. One grandchild completes the family.

Looking for a peaceful spot in the countryside of southern Ontario in which to settle, John has his eye on the Niagara Peninsula.

Nothing Stubborn About Andy Kalinka's Mule

A mechanical mule that dispenses cigarettes from the most unlikely places was presented, along with a purse of money, to Stobie powderman Andy Kalinka



Mr. and Mrs. Kalinka

at a retirement party at the Polish Hall attended by some 200 of his friends and workmates. A service pensioner, Andy worked for Inco for the past 31 years.

He came to Canada from his home town of Drohechun, in Russia, in 1928, and worked in the West until he joined the Company at Frood in 1935. He started as a driller, became a timberman, and has spent the last five years as a powderman on 1800 level.

Andy was seeking a job in Pine River, Manitoba, when he met Katie Kollanyk. They were married in 1931.

Owner of an apartment building with a large well-tended garden on Front Street in Sudbury, Andy will have no trouble staying busy during the retirement years to come.

He's considering a trip to the old country to visit his many nieces and nephews.

Eskimo man: "ugh wum Ughh. Me drive dog team thousand mile to say I love you."

Eskimo woman: "Ugh tush. Thatta lotta mush."



Mr. and Mrs. Noga

Therein lies a problem. "My wife doesn't like flying," he explained, "and I don't care to make a sea voyage. We'll either have to go our separate ways — which I don't want — or wait for an Atlantic tunnel."

Stan, who has worked for Inco for nearly 25 years, was born in Chorostaw in 1903, and came to Canada in 1927 to join the Mond Nickel Company at the Coniston smelter. His dad and two brothers had worked there since 1914.

He worked as a furnaceman until 1930, then moved to Toronto to take a job in the kitchen of a College Street restaurant. The following year Stan, the short order cook, married the waitress, Mary Sidor, and in 1942 brought her to the north country when he returned to the Company and the

Executive Committee Chairman J. Roy Gordon On Inspection at Copper Cliff



Although retired as president of the Company, J. Roy Gordon remains chairman of the executive committee and retains his keen interest in the operations. Recently, along with senior executive vice-president James C. Parlee, he made an extensive inspection of the reduction plants at Copper Cliff, and is shown above as smelters superintendent J. R. Feick discusses the operations in the oxygen control centre. On the left are division general manager J. A. Pigott, Mr. Parlee, and assistant smelters superintendent F. R. Matte. The operational technician at the control panel in the foreground is Don Saville.

Copper Refinery First to Make Plant Bonspiels "Co-Educational"



HISTORY-MAKERS: standing, skip Hattie McCrea, Marg O'Hara; front, Linda Allen, Evelyn Fox.

Another all-male citadel was stormed and captured by the ladies when for the first time in an Inco plant bonspiel a rink from the distaff side entered the fray. Lots of shots were fired but they were all the curling kind, and the boys gave in peacefully, actually quite pleased to share the fun with their popular female co-workers.

The occasion was the annual Copper Refinery Athletic Association 'spiel, and the ladies who chalked up the historic triumph were skip Hattie McCrea, Marg O'Hara, Linda Allen and Evelyn Fox. They gave an excellent account of themselves, making it to the semi-finals of the second event before gracefully yielding to the sterner sex.

Bud Elex, the hustling athletic association secretary, skipped the winning rink in the main event of the 23-team bonspiel. Curling for him were L. Paquette, M. Cirella, and W. Wilcocks. Runners-up were H. Caldwell, D. Castanza, J. Bailen, and D. Chalopin.

Second event honors went to skip L. Martel, J. Koski, B. Duckett and M. Linotte.

A memorial trophy was put up for competition by the athletic association, honoring the late Cec Matthews, always one of its most enthusiastic workers. It will be presented annually to the winning rink in the third event, where the popular Cec over the years had the habit of winding up in the finals. First winners of the new trophy were skip B. Desjardins, A. Clement, R. Daoust, and E. Jolicoeur.

Howard Caldwell was drawmaster for the greatly enjoyed 'spiel, assisted by Larry Martel and Mike Shamley. A chicken dinner wound up the proceedings.

A TEDIOUS JOB

Mistress: "And what have you been doing all morning?"

New maid: "Filling the salt shakers like you told me."

Mistress: "All that time?"

New maid: "It ain't easy, pouring salt through them little holes."



Wayne Wilson and Fred Wilke survey the action-packed scene.



Bob Chaloux and Brian Rogers carefully chaperone a stone into the house. RIGHT: Was Roland Poirier a shade narrow on this shot?



Ardent curler Bill Brown takes a long slide as he delivers a rock. RIGHT: Rival skip Bob Desjardins keeps a sharp eye on wily Wes Hart's generalship.



Getting a big kick out of the 'spiel, especially when sitting down, are Dominic Chalopin, Brian Rogers, Wayne Butler.



John Moland is going to make dead sure on this one.



Ray Levesque is a firm believer in a little "body English" to steer a stone.



Percy Larocque shows nice style as he comes out of the hack.

All This...and Nickel Too!

Canadian Summers Are Beautiful, but toward the End of a Long Winter a Fellow Could Hardly Be Blamed for Having New Caledonia on His Mind.

When Inco signed an agreement last fall with the French Government to form a second company for developing mineral resources in New Caledonia, it made the sort of deal that many a winter-weary Canadian nickel worker dreams about—a job beside a coral sea in the South Pacific, where the trade winds sigh through the

flowering jacaranda trees and Melanesian maidens bask on the sun-kissed beaches.

About 1,100 miles east of Australia, New Caledonia is a cigar-shaped island about 250 miles long and 25 miles wide. Surrounding its coasts are two lines of coral reefs, some six miles off shore, creating a navigable and beautiful waterway which also provides excellent fishing grounds for the inhabitants. The trade winds which blow almost continually temper the island's tropical climate and make it one of the most pleasant in the world, comparable to that of California. The temperature annually averages 70 degrees, never goes below 40.

Gentle sea-breezes, palm-lined beaches of fine white sand, and curtains of purple bougainvillea make it a typical South Pacific isle, but the older French colonial homes, the tree-shaded squares, the gay cafes and fashionable shops of Noumea, its capital, proclaim its French heritage.

Named for Scotland

New Caledonia was discovered in 1774 by the famed navigator, Captain Cook, who named it for ancient Scotland because of its rolling pine-clad hills, but it has been a possession of France since 1853. It is said that a French and a British frigate started at the same time from Sydney, Australia in a race to take possession of the island, and the Frenchman had the good luck to be the first to find a passage through the barrier reef, thus claiming for his nation a large and valuable mineral territory.

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A MELANESIAN BEAUTY



French Information Service

TYPICAL NEW CALEDONIA BATHING BEACH, PROTECTED BY CORAL REEF.



PINE-CLAD HILLS AND FERTILE VALLEYS IN BEAUTIFUL COUNTRYSIDE.



MODERN APARTMENT HOUSE IN PROGRESSIVE CAPITAL CITY OF NOUMEA.



LE NICKEL'S METALLURGICAL WORKS AT DONIAMBO, NEAR NOUMEA.



OPEN PIT NICKEL MINING BY LE NICKEL ON MOUNTAINSIDE AT THIO.

Was Sailor, Fisherman 29 Years before Inco

"I feel that I've had two lives," said Copper Cliff machine shop service pensioner George Warren. "I spent one life in Newfoundland as a sailor and a fisherman, and another as a landlubber in North-east Ontario."

Born in Grand Bank, Newfoundland, in 1902, George spent his



Mr. and Mrs. Warren

16th birthday outward bound for Portugal on his first voyage as a sailor and a deck hand, on a three masted cargo schooner loaded with salted and sun-dried codfish.

Thirteen years and 30 Atlantic crossings later, after having made port in such far-away places as Spain, Greece, Jamaica, and Rio de Janeiro, he turned fisherman. For the next 16 years he worked in a two-man dory, pulling in the cod along the Grand Banks.

"It was a busy life," recalled George. "Each dory had to lay a night line nearly two miles long. Baiting the 3,200 hooks on the 50-fathom lines — all 32 of them — started at around two in the morning. We'd lay the lines before breakfast, and return two hours later to lift the fish. Two tons would fill a dory, and we'd make about four trips, with gunnels awash, back to the mother ship before the lines were empty and the day was done."

During those 16 years he spent maybe 16 months ashore. "It was a lonely life, away from my family," said George. In 1947 he turned his back on the sea, joined his brother in Sudbury, and started with the miscellaneous fitters at the Copper Cliff smelter. He transferred to the machine shop in 1950, and was a tool room fitter when he retired.

George and his wife, Esther Anstey when they were married in Grand Bank in 1930, have a family of three. Anne is the wife of Iron Ore Plant 1st class electrician John Borgini. Bruce is a foreman with the maintenance department at Copper Cliff, and Kay is Mrs. Mervin Kerr of Toronto. Eight grandchildren are already on the scene.

George and his wife plan to remain in Sudbury. "This is where I've spent the happiest years of my life. But we'll be going down east quite often — to visit my 94-year-old father, and my wife's mother, soon to be 91."

Nickel in Stainless

The world's largest market for nickel is in production of high quality stainless steel, an estimated 285 million pounds of nickel going into the manufacture of the versatile alloy in 1966.

THE SECOND STAGE

"Has your baby learned to talk yet?"

"Oh sure. Now we're trying to teach him to shut up."

Cambrian College Mining Students Make Field Trip to Crean Hill



The first group of mining students from the new Cambrian College of Applied Arts and Technology to visit an Inco mine, 15 members of the mining technicians' class got a thorough insight into operations at Crean Hill.

Led by their instructor, Joseph Bardswich, P.Eng., and escorted by Inco superintendent of diamond drilling Ron Brown, they descended on Crean Hill avid for first-

hand knowledge of techniques and equipment, which the mine staff gave them in full measure. Picture shows mine superintendent Bob Browne describing the mine layout before proceeding underground.

In the alert group, all from the Sudbury district, were David Barr, Paul Beaulieu, Albert Bontinen, Michael Doyle, Michael Gravelle, Robert Leblanc, James Pajunen, Joseph Sawicz, David Stripay,

George Zieba, Marvin Smith, Wilfred Grant, Gary Howell, Sam Sloat, and Donald Wighton.

Under the presidency of John Koski, Cambrian College has campuses at Sudbury, North Bay, and Sault Ste. Marie. With 200 students enrolled in its first year of operation, the Sudbury campus at the old Notre Dame College offers 12 different courses, will add four more next September.

All This . . . And Nickel Too!

Continued from Page 12

The interior of the island consists of a complex mountain system with peaks as high as 5,300 feet, enclosing fertile valleys. There are extensive coffee and coconut plantations. Food crops include corn, wheat and vegetables; there is an abundance of both tropical and non-tropical fruits. Livestock, including cattle and horses, is generally raised on large ranches. Deer and wild pig are found in bush areas and mountains.

New Caledonia, with its smaller island dependencies, has a total population of about 80,000, nearly one half of which are aborigines of Australo-Melanesian origin. More than one third of the people live in the capital, Noumea.

The international airport at Tontouta, about 30 miles from Noumea, can handle jet aircraft. There are several local airfields on New Caledonia and the neighboring islands of Mare, Lifou, Uvea, and the Isle of Pines.

Educational facilities include 269 public and private elementary schools, 12 colleges, seven technical and vocational schools at which 29 specialized technical courses are offered.

A 250-bed general hospital in Noumea, specialized hospitals, private clinics, medical centres and dispensaries, a Pasteur Institute and various private Catholic and Protestant health services, are among the territory's health facilities.

It is in this South Pacific para-

dise that International Nickel will put its great technical know-how to work in developing vast low-grade lateritic nickel deposits.

Although Garnier discovered nickel in New Caledonia in 1855, it was not known to occur in economic quantities until the end of 1874. Discoveries multiplied rapidly, and over 300 tons of ore was exported in 1875. When freight charges to Europe became excessive, furnaces were erected near Noumea, and the island became the world's chief source of nickel until it was displaced by the Sudbury district soon after the turn of the century. It continues as second to Canada as a nickel-producing country in the Free World.

All Open Pit Mining

Unlike the rocky sulphide ores at Sudbury and Thompson, mostly mined at depth by underground methods, the lateritic ores of New Caledonia are silicates in the form of an earthy material recovered near the surface by open pit mining. According to its grade the ore varies in color from green down through greenish yellow to chocolate brown.

Societe Le Nickel, the French company operating the local smelting plant, mines the major part of the New Caledonian ore, the remainder being produced by a dozen or so smaller operators.

The Thio mine, for many years the most important mine on the island, belongs to Societe Le Nickel. It is situated on the east coast of the island on a mountain-side plateau facing the sea. The modernized operations use power shovels and front end loaders, and the ore is carried in buckets down

the mountain slope by an aerial tramway 16,000 feet long. It is loaded by conveyor into ships for transport around the southern end of the island to the smelter near Noumea, on the west coast, a journey of 110 miles.

Under its agreement with the French government, International Nickel will develop previously unexploited areas of New Caledonia containing large low-grade nickel deposits. The Company's background of extensive research into the treatment of low-grade lateritic ores gives it the technical experience necessary to bring these deposits within economic range.

The immediate objective is to provide facilities for adding 50 to 100 million pounds of nickel per year to the world's supply. It is estimated that from one to two years of preliminary exploration will be required by Inco on the project.

A QUICK TRIP

A Scotsman's wife whose doctor told her she had to have salt air woke up next morning to find her husband fanning her with a herring.

SPEED ARTIST

Lady next door: "Johnny, where's your brother?"

Johnny: "He's in the house practising our duet. I beat him done."

SOMETHING TO THINK ABOUT

One nice thing about being a skunk is that you can hang around the neck of a beautiful woman long after you're dead.



CF-INB, latest edition to the Company's exploration arm, is the first metal aircraft to be equipped with Inco's airborne electromagnetic system. A structure to isolate the transmitting coils from the metal airframe without interfering with the flying characteristics of the plane was successfully devised by De Havilland and Inco engineers. AT RIGHT the aircraft is seen on a geophysical survey flight, towing its 60-pound fibreglass "bomb".

Metal Aircraft Successfully Adapted for Use With Inco's Airborne Electromagnetic System

A sleek new Twin Otter turboprop, surmounted by an unusual tripod arrangement, has joined the fleet of aircraft used by International Nickel in its geophysical exploration program.

Loaded with highly sophisticated electronic gear, the plane has made several test flights in the Sudbury area, and will soon go into full service in the unceasing search for potential new sources of nickel in various parts of Canada.

The other four aircraft used by Canadian Nickel Company Limited, Inco's exploration subsidiary,

are the familiar Ansons, ideal for transporting geophysical equipment since their wooden structure does not interfere with the operation of airborne electromagnetic instruments. Thus the transmitter coils can be built into the fuselage, resulting in very little change in the flying characteristics of the aircraft.

Ansons No Longer Made

As wooden aircraft of the Anson type are no longer being manufactured, Inco electronics engineers tackled the problem of adapting the electromagnetic instruments to

a metal aircraft. Because of its rugged structure particularly suitable for bush operations, its excellent flying characteristics at low speeds, and short take-off and landing capabilities, the De Havilland DHC6 Twin Otter was chosen as the vehicle for the first installation of the Inco "Air EM" system in a metal aircraft.

To reduce interference caused by the metal airframe with the electromagnetic instruments, the transmitter coils had to be mounted externally and isolated from the airframe by at least 12 inches.

Working closely with the Inco experts, the De Havilland engineers came up with a design that proved to be very successful. The transmitter coils are contained in a wooden tripod structure on top of the aircraft, with the back portion of the longitudinal coil embedded in the leading edge of the tail fin, which was reconstructed of fibreglass.

A magnetometer, also carried by the aircraft, is isolated from the metal airframe by mounting its sensing head in a phenolic tube situated in a fibreglass wingtip.

CF-INB won't win any beauty contests but, despite its rather ungainly appearance, satisfactory stability and control have been maintained, and very few restrictions have been placed on the aircraft due to the unusual installation.

Backed Up by Research

Backed up by a research and service section at the Frood hangar, International Nickel's airborne electromagnetic devices have covered hundreds of thousands of miles in the quest for new nickel orebodies since they were first developed by the Company's engineers at Copper Cliff in 1950.

"Air EM" has been of incalculable value. The most dramatic demonstration of its effectiveness as an exploration tool was the discovery in 1966 of the Thompson orebody, buried beneath 140 feet of water, muskeg and clay in the remoteness of northern Manitoba. Only by a fantastic whim of fate would it ever have been found without airborne geophysical sur-

vey techniques. Less sensational but of vital importance in maintaining Inco's ore reserves in the face of steadily mounting demand for nickel have been many other findings pin-pointed by "Air EM".

The "Air EM" survey aircraft are fitted with special equipment which includes two coils, a transmitter, a receiver and recorder, a winch, a radio altimeter, a camera to photograph the flight path in synchronization with the recorder, and a "bomb", so called because in appearance it resembles a military projectile. In the bomb are installed two coils, an amplifier, and a modulator. The plane is also equipped with a magnetometer.

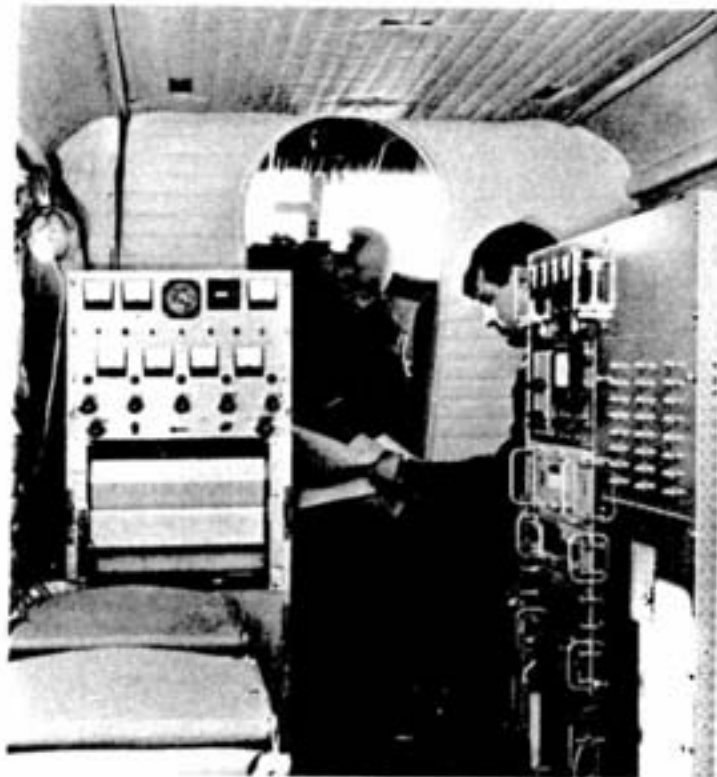
When a plane is in flight the 60-pound fibreglass bomb, about five feet long and 10 inches in diameter, is lowered by the winch on a 500-foot rubber-covered steel cable and is towed at an elevation of approximately 300 feet at a speed of 120 miles per hour. A carefully controlled flight pattern is followed, the aircraft flying back and forth across the area of interest on lines a quarter of a mile apart.

Measures Earth's Conductivity

The electromagnetic equipment is designed to measure the electrical conductivity of the earth. A signal sent out by the transmitter in the aircraft is picked up by the coils in the bomb, amplified, modulated, and sent back to the receiver in the aircraft, where it is recorded on a continuous graph.

Since most nickel-containing sulphide orebodies are electrically conductive, their presence within the plane's electromagnetic field will increase the strength of the signal as it is received at the bomb, and will in turn be indicated on the recorder chart as a peak, called an anomaly. On the other hand, the presence of massive magnetite, a magnetic iron oxide, will weaken the signal, and will be shown as a valley on the chart.

Most nickel-containing sulphide orebodies are also magnetic and consequently show up on the magnetometer carried by the aircraft. However, the magnetometer does not distinguish between magnetite and magnetic sulphides, and is consequently much less effective as an airborne geophysical exploration tool than "Air EM", but it does pick up additional valuable basic information.



Pilot Norm Linington and electronics technician Marty Sime discuss flight plans prior to take-off. The equipment rack on the right contains the electromagnetic transmitters, magnetometer and other electronic gear. In the rack on the left is the equipment for receiving and recording the detailed information picked up in flight.



Walter Day

The Copper Refinery's Walter Day is the man who was hired there as a temporary stores helper for three months, stayed for 31 years, and retired on service pension as senior stores foreman.

Well known and well liked by the many people he's worked with—and being in the stores business he's dealt with just about every-



Mr. and Mrs. Day

body in the plant—Walt was always on his toes with his prompt handling of a multitude of regularly ordered items, and a variety of equipment that ranged all the way from quarter-ounce platinum electrical contacts to mammoth 50-ton electric furnace transformers.

Born in 1903 in Avonmouth, England, Walt was nine when his family emigrated to Canada and settled in Winnipeg, and 16 when he started work in the fur trade there. Ten years of travelling into the North on pelting trips was followed by a transfer to Sudbury as manager of a branch office. Doldrums hit the business in 1938, and Walt considered himself lucky when he landed the temporary warehouse job at the refinery.

Having proved his ability, he became a permanent member of the stores department, became storekeeper when Joe Cawthorpe left for the war in 1941, and was promoted to senior stores foreman in 1966.

Walt and Ellen Little were married in 1925. Their daughter Lois (Mrs. Blair Hunter) and their two grandchildren live in Don Mills.

The popular stores foreman was honored at no less than three farewell parties, at the regular Refinery pensioners' stag, at a stores gathering, and at a staff party.

The Days will be leaving Sudbury. "I don't take to the cold too well anymore," explained Walt, "so there's a move coming up, either to the West coast or to Toronto. After we're settled we'll do a good deal of travelling, with our first trip to England, naturally."

Laurence Jennings

A long time cottrell operator, pensioner Lawrence Jennings—known better to everyone as Mickey—is very grateful to the more than 100 friends and associates who feted him with a retirement party at the Italian Club. "Tell them," he requested, "that I've spent the purse they gave me on a new chain-saw for my camp, with no regrets about hanging up the old buck-saw."

Mickey is very proud of his long service with Inco, nearly 45 years.

His first bid for employment was made at age 12, when he landed an after-school job milking 15

Strom's Shift at Coniston Held Their First Stag-and-Doe Dinner



Strom's shift at the Coniston smelter had a most enjoyable evening at their first annual stag-and-doe dinner, held at the Club Allegri with over 150 present.

Three members of the shift, recently retired on pension, were honored by presentations: general foreman Aldege Blake (transistor radio and wood carving of a converter puncher), Mike Kiersta

(painting), and Ernesto Libralesso (easy chair).

Following the usual sumptuous Club Allegri dinner, the party was topped off by dancing to the music of the Allegros.

General foreman Elnor Strom and his wife Jean are seen at the left on the opposite side of the table above; to the right of them are John and Pat Malysch, and

pensioner Bill McLaughlin and his wife Gert. In the left foreground are Jack and Helene Bryce, and to the right of them are plant superintendent Roy Smith and his wife Kitty, Mrs. Lilith McConnell and reduction plants manager Jack McConnell, and retired plant superintendent Fred Murphy.

Some of the others attending the successful gathering are seen below.



Mr. and Mrs. Jennings

cows at the Sudbury Dairy, for 50¢ a day.

He headed for the mines at Shiningtree, Ontario, in 1920, worked there as a hoistman, and returned to Sudbury to join the company at the Copper Cliff smelter in 1923. Starting in the blast furnace building, he moved to the then new reverberatory building as a furnaceman in 1930, and was a relieving shift boss there when he was transferred to the number one cottrell in 1949.

Mickey married a third-generation Sudbury girl, Lorette Collin, in 1935. Her grandfather, Jules

Collin, is believed to have been the first settler in Sudbury, arriving in 1882.

Their two daughters are Lorraine (Mrs. Armand Demers), living in Engers, Quebec with their four grandchildren, and Bernadette, secretary in the Sudbury police department.

BROAD-MINDED

"Would you come to me in distress?"

"Baby, what you're wearing makes no difference."



The retiring chief engineer of the Ontario division, John Quance, addresses the 400 colleagues and friends attending a banquet in his honor. General manager J. A. Pigott, contractor Neil Smith, and assistant general manager G. O. Mochum show the crowd's enjoyment of his drily humorous observations.

Earned Accolade "He Buildd Well"

John E. Quance, an engineer who joined the Company in 1938 as a draftsman and rose through the ranks to become chief engineer of the Ontario division, has retired on service pension. As a crowning project of his dedicated career, he led his department in the engineering of the ultra-modern new \$32,000,000 Frood-Stobie mill.

During his 30 years with Inco he has been closely identified with great development projects in the Sudbury district and at Thompson and Port Colborne that will stand long into the future as evidence that "he buildd well".

In the latter-day era of the engineering specialist he stood tall as a structural steel man, highly regarded in his profession.

Born in 1902, the son of a saw-mill owner in Puslinch, near Guelph in southern Ontario, John was four when his father died. Raised in Delhi under the wings of his six uncles, who operated both flour and sawmills, he was exposed to the then modern miracles of machinery, became interested in their design, and entered Queen's University, Kingston, in 1921 as an embryo engineer.

His first job, after graduating with a B.Sc. degree in civil engineering in 1925, was on a precise survey of the Welland canal. He then went to New York with the intention of broadening his knowledge by working for a firm of consulting engineers. The fact that he changed his mind, and instead found a job with a structural steel fabricator, was the turning point in his life, and he was to be a steel man at heart for the rest of his career.

He returned to Canada in 1927 and during the following year designed and detailed structural steel for the Hamilton Bridge Co. and Dominion Bridge Co. He was working for The Standard Steel Co. in Port Robinson in 1928 when he became part of the team that designed the complicated Paris, Ontario, bridge, which proudly stands today as a monument to the skill of steel men.

During the depression years he was employed in Welland, London and Buffalo. He joined the 20-man Inco general engineering department at Copper Cliff in 1938 to work for chief engineer L. M. Sheridan.

Crash Wartime Programs

Starting with the Frood open pit crushing plant, John was involved in the construction of many major

building projects including the wartime re-building and widening of the smelter reverberatory furnaces. "That was a real crash program," he recalled with a grin and a shake of his head. "Clarence Buck was chief draftsman at that time, and we worked together on the first application of pre-fabricated furnace steelwork. I seem to remember that the usual 'down time' for a furnace during a re-build was about three or four weeks. On that particular job we were on the run as soon as the coal was off, and had the unit assembled and ready for fire in three days."

John was appointed assistant chief engineer in 1953, and was soon busily organizing the extensive changes necessary at the Copper Cliff works to accommodate the Company's new iron ore recovery plant that was built during the next two years. Design and construction of the Thompson mill, smelter, and headframe was the department's next major assignment, to be followed by the almost endless pressure of work arising from the Company's expansion program.

Upon the retirement of N. H. Kearns in 1964, John Quance was appointed chief engineer.

While working in Port Robinson in 1928, he was married to Jean Heslop. The couple were blessed with a family of three. Their elder son, John, worked for the Company for 12 years and was a senior geophysicist at the time of his death in 1964. Son David lives in Montreal, and daughter Elizabeth in Toronto.

Honored by Big Gathering

The Italian Club in Copper Cliff was the scene of a stag party in John's honor, with close to 400 associates and friends turning out to wish him the best for the retirement years ahead. He was presented with a 14-foot boat together with the hope that he would put it to good use at his summer place at Dry Pine Bay on the French River.

Speaking for the Company, Ontario division general manager J. A. Pigott thanked Mr. Quance for his many years of distinguished service, and added that he understood full well the amount of work and detailed study that had to be accomplished between the decision to build a plant and the time when it went into production. The guest of honor was accorded a standing ovation by the big gathering.

Mr. and Mrs. Quance will be moving to the southern Ontario town of Grimsby, on the Niagara Peninsula, where the engineer in John will continue to produce masterpieces, except that these will be in wood, for he plans to pursue his life-long hobby of carpentry. There was a twinkle in his eye as he said, "And I just may be tempted to do a little consulting—it's hard to break the habits of so many years."

Mike Dolhan

After 39 years with Inco at the Nickel Refinery in Port Colborne, Mike Dolhan has retired on service pension. He was born in 1902 in the village of Mszaniec, Austria, where he farmed. He also served in the Polish Army before coming to Canada in 1925. He worked on the railway in Saskatchewan, farmed in Manitoba, and mined

nickel at Inco's Creighton mine, near Sudbury.

Mike worked in the leaching, calcining and sinter department at



Mr. and Mrs. Dolhan

Port Colborne, where his occupation was telpherman at the time of his retirement. He takes pride in having had no lost-time accidents in his 39 years of steady service.

He was married to Nellie Mymka in 1948.

In the presence of a group of his workmates, Mike was presented with a purse of money by C. H. Ott, who thanked him on behalf of the Company for his long and faithful service.

Mike is now looking forward to spending much of his time working in his garden, where he always has a beautiful display of flowers.

Dollard Levac

Since his retirement on disability pension after 21 years with Inco, Dollard Levac has spent most of the time soaking up the summer sunshine and fishing his favorite spots on Lake Nipissing. "Now I think it's time I started looking for a light job to keep me busy," he said.

Born in Sturgeon Falls in 1921, Dollard headed for the cordite factory at Nobel in 1941, joined Inco for the first time at Garson



Mr. and Mrs. Levac

in 1942, and left for the army in 1943. He served as an instructor at Valcartier, was demobilized in 1944, and returned to the Company at the Copper Cliff Mill crushing plant in 1945.

During the following year he really moved around, working as a tuyere puncher in the converter building, as a trackman with the transportation department, and then transferring to Frood. He was an underground switchman at the time of his retirement.

Therese Courchesne of Field became his wife in 1945. Their family of three, Diane, Ronald, 18, and Joselyne, 15, live at home.

THE OLD NEEDLE

"Mother, what is a trousseau?" asked her six-year-old.

The mother glanced across the room at her husband, who was hiding behind a paper, and said, "A trousseau, darling, is the clothes the bride wears for six or seven years after she is married."



Well-wishers crowded around to give John Quance a rousing "hail and farewell". Here he's chatting with Ross Elliott (left), Dave Duncan, his successor, and A. D. Finlayson, chief engineer at Port Colborne.