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N for Nickel in Canada's Coinage

(Story on Page 4)



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First Effects of Expansion Showed In '68 Production

In 1968 the first effects of International Nickel's current production expansion program began to be felt as the Company delivered 480,840,000 pounds of nickel in all forms, compared with the 463,450,000 pounds delivered in 1967, it was announced at Toronto by Henry S. Wingate, chairman.

As in previous years, last year's deliveries included nickel purchased from various sources and delivered to customers on a non-profit basis, but the amount of this purchased nickel was considerably less than in 1967. The greater deliveries of nickel of the Company's own production, combined with the higher prices received for nickel, copper and platinum-group metals, contributed favourably to the year's earnings.

Net earnings of Inco in 1968 were \$143,745,000 (U.S.), or \$1.93 per share, slightly above the \$141,752,000 or \$1.90 per share earned in 1967, Mr. Wingate stated. Dividends totalling \$91,475,000 were paid to shareholders last year, at a record rate for the Company of \$1.23 per share.

Production Costs Up

The 1968 earnings were adversely affected by greater production costs for the Company. These resulted from its all-out efforts to crowd increased nickel production in order to meet its customers' needs, and from higher employment and supply costs, plus technical and operating problems arising from increased dependence on ores of lower grade. Earnings were also adversely affected by a reduction of tax-exempt "new mines" income in Canada and by tax surcharges imposed by Canada and the United States.

Income taxes for the year totalled \$86,837,000, compared with \$78,259,000 in 1967.

Record Company expenditures were made for both capital projects and exploration last year as International Nickel pushed ahead in its worldwide efforts to increase its nickel-producing capacity. Exploration expenditures amounted to \$17,028,000 (over 70 per cent of which was made in Canada), as against a total of \$13,252,000 in 1967.

Capital expenditures during the year totalled \$175,384,000 (\$142,370,000 for Canadian operations), compared with the total for 1967 of \$145,705,000, which was the previous high. It is anticipated that



Drawn for the Triangle by Ross Longue

"Since she's been here nobody ever misses a shift."

capital expenditures this year will approximate \$200,000,000 for Canada, the United Kingdom and the United States. For Canada alone, they are expected to exceed \$150,000,000. Expenditures for exploration are also expected to increase.

Travelled the World In Search for Nickel

For more than a quarter of a century the world has been the beat, and new sources of nickel the goal, of Charles E. Michener, who has retired on early service pension.

Joining International Nickel in 1935 as mine geologist at Frood, he was appointed the Company's chief exploration geologist in 1945, and 10 years later became vice-pres-

sive exploration activities in Canada have included the Arctic, Manitoba, the Ferguson Lake area west of Hudson Bay, New Brunswick, and of course the Sudbury district.

His final role as a full-time employee in establishing Inco's major interests throughout the world was his part in the recent successful negotiation of an agreement covering the investigation of nickel deposits in Indonesia, but on his retirement his services will continue to be available to Inco whenever they are required.

A sixth generation Canadian, Charles Michener was born in Red Deer, Alberta. He is a brother of His Excellency, Rt. Hon. Roland Michener, C.C., Governor General of Canada.

Mineral Named for Him

He graduated from the University of Toronto in geology and mineralogy in 1931, obtained his

master of science degree from Cornell University in 1932, and his doctorate from the University of Toronto in 1937. He published a number of scientific papers, chiefly in the field of x-ray mineralogy. A newly discovered mineral was named Michenerite in recognition of his research work.

Under the direction of Ralph D. Parker, then general superintendent at Copper Cliff, he and his staff in co-operation with McPhar Engineering back in 1948 pioneered the use and development of a revolutionary new exploration technique, an air-borne electromagnetic method which has proven of enormous value to International Nickel and to the mining industry at large.

His marriage to Audrey Bell took place at Regina in 1936. They have two sons and one daughter, with three grandchildren. They reside in Toronto, and also have a farm home within a few miles of the city.

Dr. and Mrs. Michener are now on a trip to New Zealand.

50 Years Married

An Inco pensioner since 1959, Louis Nagy, and his wife celebrated the golden anniversary of their marriage in Hungary with a reception at their home on January 25.



Mr. and Mrs. Nagy

They have been residents of Port Colborne for 42 years. One of their three daughters, Mrs. William Zalta, resides in Sudbury.

Mr. Nagy joined International Nickel at the Port Colborne refinery in 1927.

Broomball Team Played Exhibition at Thompson



Representing the Inco office staff, this group of good-lookingers put on a good show in an exhibition broomball match at Thompson prior to a Minor Hockey Week challenge game between the Inco hockey team, coached by J. McCreedy, and the Thompson Bus Line Reds. The hockey team won 3-1 but the girls lost, 1-0. In the front row are Mieke Kimmel, Jean Campbell, Alice Klika, Helena Knezevic, Kathy Oliver, and Wendy Kochanowski; back row, coach Ken Achter, Sadie Peters, Jeanette Assailley, Barbara Duncan, Pat Dwinell, and Elaine Baldwinson.



Dr. and Mrs. Michener

dent of Canadian Nickel Company Limited, Inco's exploration subsidiary. He was made an assistant to the vice-president of Inco in 1967.

His headquarters were located at Copper Cliff until 1956 when he transferred to Toronto, where until his retirement he was Inco's principal contact with individuals and organizations engaged in the field of exploration.

Explored Many Countries

South Africa, South America, Mexico, the Caribbean, Morocco, Saudi Arabia, Greece, Turkey, the Scandinavian countries, the South Pacific, Australia and the Philippines have been among his ports of call over the years. His exten-

Inco Family Album



Proud father of these three pretty misses, Brenda Lee, 6, Sandra Lee, 5, and Debra Lee, 7, is oxygen plant stationary engineer Claude Blake. Their mother, Carol, is a stenographer in the electrical-mechanical department at Copper Cliff. A native of Coniston, Claude joined Inco in 1959, and Carol, a Sudbury girl, came to the Company in 1964. The Blakes have lived in New Sudbury since 1964, are both ardent bowling and curling fans, and enjoy summer camping on the French River.



Alvin Jenkins operates one of the big drill jumbos at Creighton 3 shaft. He and his wife Alma hail from Jamaica. They were married in England in 1956, and Alvin worked at the coal face of a Nottingham mine until 1966 when he moved his family to Canada and started with Inco. Their three happy youngsters are Beverly, 8, Lorna, 6, and Deborah, 18 months. Alvin is

putting the finishing touches to the new home he built on Picard Street, Sudbury.



The wide open spaces of the pleasantly rural Gauthier sub-division in Azilda is where Frood drift driller Ray Hebert and his family make their home. Born in Sudbury and raised in Welland, Ray returned to the North and joined the Company in 1953. A native of Maniwaki, Quebec, Ray's wife Carmelle is a French teacher at Notre-Dame School in Hanmer. Their all-boy family are Jean Guy, 7, Claude, 10, Andre, 8, Alain, 3, and Daniel, 2. When father has time to relax he enjoys landscape painting and movie photography.



A brakeman at Coniston, Roger Goudreau started with the Company on the nickel reverbs at Copper Cliff in 1956, he moved to the transportation department in 1964, and to Coniston in 1967. He lives at Wanapitoe. His wife Beverly was a Coniston girl, and their two bright-eyed youngsters are Rodney, 2, and Darrell, 8. Roger coaches minor hockey, plays softball, and between times has earned a blue belt in judo.

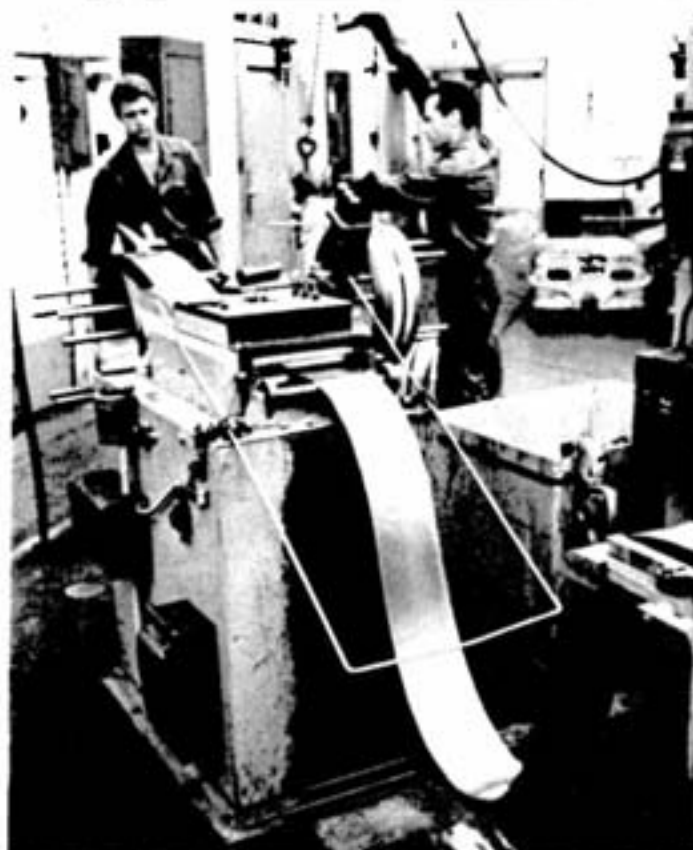


With a 30 mph wind behind him Joe Dulaj of Port Colborne makes about 90 mph in the ice boat he built for himself, and his family agrees with him it's a super thrill. He's shown here with his wife Vera and children Patrick, 6, Jeffrey, 13, Joanne, 16, and Brenda, 18. Joe came to Canada from Czechoslovakia in 1936, joined Inco at the Port Colborne nickel refinery in 1951 as a machinist. Ice fishing and partridge hunting are his other pastimes.

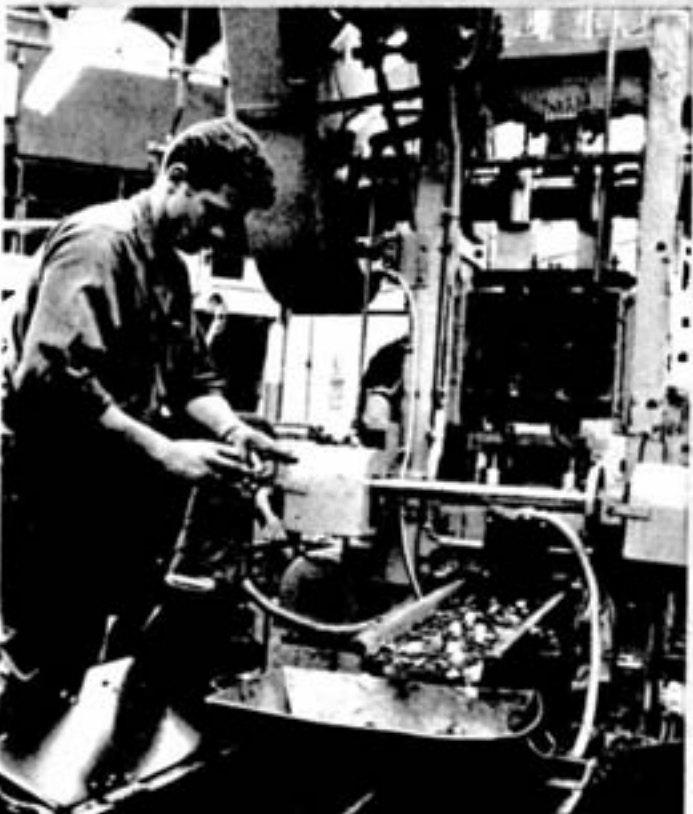


Family fun includes summer-time boating and fishing on nearby Oswagan Lake. Brian is an enthusiastic member of the Thompson drama group known as the Cambrian Players.

Here's a foursome who've lived in Thompson since they left England in early 1968. A coal mine under-manager in the old country, Brian Mountford is now working in the mine planning department at Thompson T1 shaft. He and his wife Mildred and their two youngsters, Nicola, 4, and Gary, 8, are comfortably settled in a smart new home on Westwood



Nickel strip supplied by International Nickel is made ready for feeding into blanking press which stamps out as many as 5,400 blanks a minute, depending on denomination.



Inspection of nickel blanks as they come out of blanking press. After being edge-marked they are placed into an annealing furnace for softening, then cleansed bright prior to coining.

Canada's New Nickel Coinage

Although Canada started issuing nickel "nickels" in 1922, last year was the first in which the Royal Canadian Mint in Ottawa produced 10-cent, 25-cent, 50-cent and one-dollar coins of pure nickel.

Many factors were involved in the government's decision to switch to nickel coinage for all denominations except the one-cent bronze piece. As a coinage material, nickel is considered to be an ideal metal. Because of its corrosion- and wear-resistant properties, pure nickel retains a lustrous and pleasing appearance and has good malleability so that coins can be struck to show the finest detail. In addition, Canada, the world's largest producer of nickel, provides a ready source of supply. Also, seigniorage—government gain from the difference between cost of production and full value of coins—is much greater because nickel costs much less than silver. The major factor, however, was the rising cost of silver as well as its short supply.

Design of the new nickel coins reverted to that used for the pre-Centennial silver issue. All carry the effigy of Queen Elizabeth II on the obverse side and, depending on the denomination, the reverse sides show as their motif Canada's coat-of-arms, scenes of national historical significance, or Canadian flora and fauna.

All of the five nickel coinage denominations were put into circulation at the beginning of August last year.



Although nickel was isolated as an element only 200 years ago, coins minted in Bactria over 21 centuries ago were similar in composition to our present-day 75/25 copper-nickel coins.

Chinese bronze knife coins, containing from three to five per cent nickel, were used as currency as early as 770 B.C.

Since the first pure nickel coin was issued by Switzerland in 1881, 61 countries have used the same metal for 159 denominations in 216 types. The original Swiss coin still shows most of the original detail of the dies.

The largest pure nickel coin was the 20 Francs of Belgium, weighing 20 grams. The smallest is the 10 cent produced by the Netherlands, weighing only 1.5 grams.

Coinage consumed 2,700 tons of nickel in 1968. Reflecting the increased demand for coins, and the urgent need to replace silver

in coinage, over 10,000 tons of nickel were used in 1968.

In 1968, 147 countries, territories, confederations and states exclusive of Iron Curtain countries were producing and circulating approximately 900 denominations of coins, of which 415 were made of pure nickel or nickel alloys.

The most widely used coinage material, an alloy of 75% copper and 25% nickel, is used in more than 270 denominations circulating in 94 countries. The United States has used this alloy for its five cent piece since 1866.

In 1968, 22 countries were producing or circulating 45 denominations of pure nickel coins.

Present indications are that 25 countries propose adopting or expanding their use of nickel and nickel alloys for coinage in 1969 or 1970, involving 41 denominations.



Coining dies for the 25c denomination are examined for imperfections.



After coins have been struck and inspected, they are counted automatically by a telling machine and put into bags for shipment to the Bank of Canada for subsequent distribution to the chartered banks.



Coinage press operator examines a coin after coming off press.



Every coin produced must meet a high standard of quality: weight, diameter and fineness are established by law. One phase of the quality control is the testing of a sample coin for imperfections in detail by this optical comparator.



SHE WENT FROM RAGS TO RICHES BUT SHE REMAINED THE SAME TRUE-BLUE DOWN-TO-EARTH MOLLY

From "Leadville" Johnny's rustic cabin to the glamor of European high society was the trail blazed by "The Unsinkable Molly Brown". Played by Gerry Henderson and Dominic Favero, they're seen above (left) at the birth



of their romance and (right) as they entertained visiting "royalty" in their Denver mansion: Larry Roach, Elaine Brown, Kjeld Bech, Lois Leach, Ed Kalaliff, Molly and Johnny, Eileen Boardman, Alex Danich and Marg Whalen.

Port Colborne Society Set Record with "Molly Brown"



In a ritzy night club at Monte Carlo Molly gently declined a romantic proposal from Prince DeLong (Ed Kalaliff). Their duet, *Dolce Far Niente*, was a highlight of the show.

A new attendance record of 6500 was set by Port Colborne Operatic Society with its 23rd musical production, "The Unsinkable Molly Brown", which played for a solid week at the Inco Recreation Club.

The "Standing Room Only" sign was out for the final two performances.

Proceeds go to the Society's special project of many years, purchasing new equipment and toys for the children's ward at Port Colborne General Hospital.

"Molly Brown" presented an extra challenge to the Society in that, unlike other Broadway successes it has produced, this show had no great song hits to spread its fame ahead of it, as did for example "Oklahoma!", "South Pacific", "My Fair Lady" and "Brigadoon".

Spread the Good Word

But early audiences soon spread the word throughout the Niagara Peninsula of another brilliant stage treat, and the Port Colborne Company went on to an attend-

ance record, garnishing its reputation as one of Canada's best.

Based on a real-life story, "The Unsinkable Molly Brown" tells of a hillbilly ragamuffin who married Johnny Brown in Leadville, Colorado and, after he made a great silver strike, fought and scrambled for social recognition in Denver, and cut a wide swathe in European society. A warm-hearted, down-to-earth character, she was undaunted by the snubs and cruelties she endured from the aristocrats, and remained true to her rough-diamond husband. Her reputation as "unsinkable" became world-famous when she took charge of her lifeboat in the sinking of the Titanic and made the men keep rowing on the dark, stormy Atlantic despite bleeding hands and tortured backs, until the 40 passengers were rescued.

Her Second "Best Seller"

The part of Molly was a natural for Gerry Henderson, with her sparkling vitality, unsinkable spirit, and excellent voice. She swept the show along with her as she did in 1965 as Maria in "The Sound of Music", the Society's

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As usual many Inco families were represented in the show by, for instance: Jackie Crawford, Ray Wilcox, Pat Chapdelaine, (seated) and Donna Cutler and Sarah Thompson.



The artistry of Jim Crawford, nickel refinery timekeeper, in painting all the scenery for the production, came in for a lot of admiring comment. He's shown here chatting with Mrs. "Dot" Fort, the director. While in high school Jim won a scholarship for a year's art studies, but never followed through on this training until he joined the backstage crew of the Society five years ago.



Others with Inco affiliations who, either on stage or behind the scenes, shared in the success of the outstanding production were Karen Martine, Marilyn MacDonald, Lenore Elsworth (seated), and Doug Caldwell, Murza Armbrust, Pat Goss, Phyllis Nixon, Joe Lucas, Frank Getin.



Tied with "Snoopy" for 1st place with their amusing ice sculpture "Man in a Bathtub", were Lively High class 11A1.

Lively's First Winter Carnival

Lively's first Winter Carnival was a most enjoyable affair and an unqualified success.

"We'll do it again next year," said the gratified sponsors.

There were 12 colorful entries on Main Street in the ice sculpture contest, created by Lively High School students.

Small fry gathered after dark for a giant bonfire, and at a packed high school teen dance the results of the carnival queen contest were announced, with pretty and talented Brenda Peacock the winner.

A January thaw with freezing rain had the rink committee of John Taylor, Eric Fenton, Arnold Hansen and Mason Logan working through the night preparing the

ice surface at the two skating rinks.

An ice fishing shack complete with fishermen, smoking stove, and other facilities, entered by high school class 9A1, was judged the best float in the parade. Jack Maskell received the award from Copper Cliff mayor R. G. Dow, who officiated at the carnival in the absence of Lively's mayor Len Turner.

The packed program included snowmobile and sleigh rides and snowshoe golf. A log-sawing contest was won by Ray Chateaufort with a record time of 23 seconds to cut a 12-inch pine. Pillow fighters straddled a pole and walloped each other into the snow.

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Congratulating the creators of "Snoopy", class 11B, are Lively Winter Carnival co-chairmen Charlie Tuttle and Jack Cooper.



These are some of the youngsters who entered the costume contest. Judged by Copper Cliff mayor R. G. Dow, Orest Andrews, Lively A.A. president Al Este and Doug Soucie, first prize went to Kim Cooper as a Chinese coolie, second to Sheila Morrison as Nancy Greene, and third to Judy Robson for her Christmas tree outfit.

Choosing the carnival queen from this bevy of young beauties must have been a soul-searching problem. Wearing her newly won crown, Lively High grade 10 student Brenda Peacock receives congratulations from Rene Trotter. The other lucky male in the picture, Richard Condie, organized the contest.



The Pee-wee league players took on the mothers in a hilarious hockey contest which ended in a draw. Facing off for the mothers in the picture is blonde bombshell Yackline Flynn, who was penalized several times for playing with intent to win by clown-type referee Walter Lalonde.

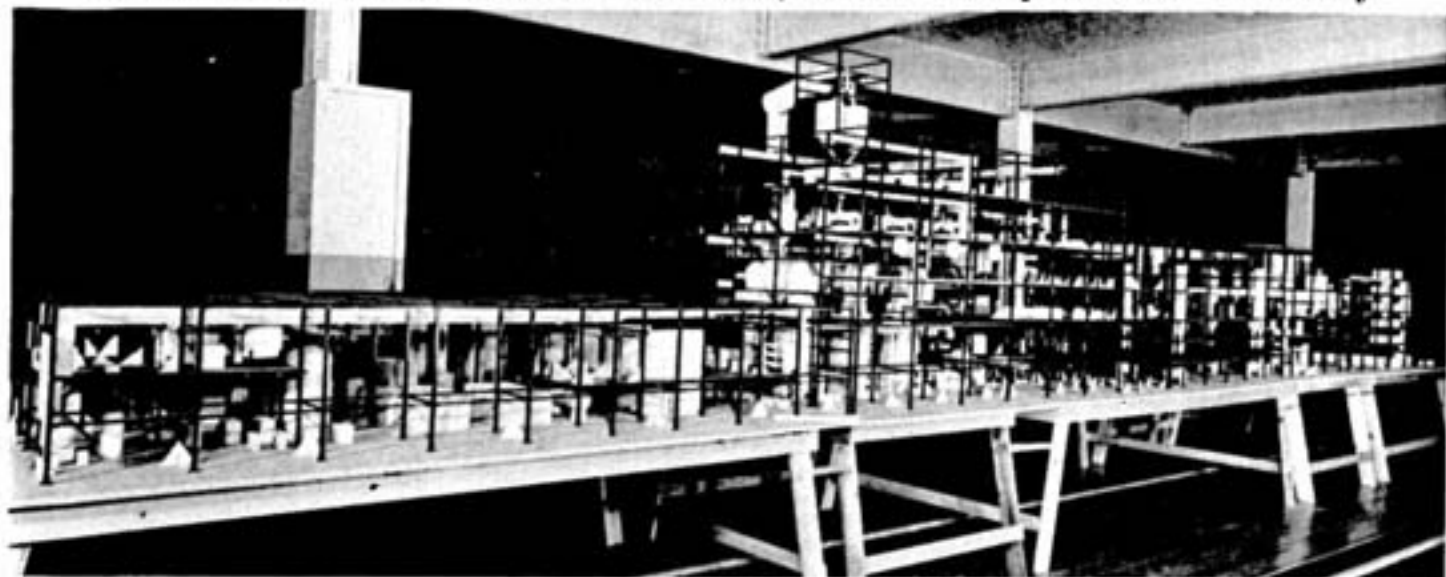


(Left): With their artistically sculptured "Seal with Ball", class 12A walked off with a well-deserved 2nd prize. The January thaw that preceded the carnival created ideal snow conditions for sculpting by the ambitious and talented high school students.

(Right): One of these bright sunny days Humpty Dumpty is due for a sloshy fall, but until then he'll sit proudly on his cold wall as class 9B's winner of third prize. Bright colors of the sculptures made a gay scene of Lively's Main Street.



Preliminary Block Model Shows Layout of Complex IPC Refinery



THE carbonyl extraction concept in nickel refining may fascinate metallurgists with its "basic simplicity" but there's nothing simple about the plant required to put Inco's new pressure carbonyl process to work. Above is a preliminary block model of the refinery, which will be over 800 feet long and 125 feet wide. Built by the consulting engineers on the project, Blaw-Knox of Pittsburgh, the scale model shows the layout of major equipment such as

compressors, reactors, decomposers, etc., and is particularly valuable in planning the intricate service installations required. More detailed models of the equipment will be constructed later. Other major buildings in the complex will house the Kaldo converters, the leach residue plant, and the oxygen plant extension. Construction of the IPC plant is underway at Copper Cliff on the site between the copper refinery and the iron ore plant, with completion scheduled for 1971.

New Refinery Will Use Two Big Innovations in Nickel Metallurgy

TWO novel processes, developed by International Nickel's chemical metallurgy team, will be employed in the new \$85 million refinery now under construction at Copper Cliff.

One is the introduction of the top-blown rotary converter (TBRC) to the nonferrous smelting industry for iron slagging and metal making. The other is the application of the Inco pressure carbonyl process (IPC) to a wide variety of feed materials for the recovery of pure nickel, cobalt and iron.

These far-reaching innovations in the extractive metallurgy of nickel were discussed in detail in a paper presented at the annual meeting of the A.I.M.E. in Washington last month. Authors of the paper were Paul Queneau, assistant to the chairman and consulting engineer, New York, and three staff members of the J. Roy Gordon research laboratory at Sheridan Park, Toronto: C. E. O'Neill, director; A. Illis, technical assistant to the director; J. S. Warner, science adviser to the director.

Rapid Technology Progress

"In the final decades of the 19th century and for nearly the first half of the present one," stated the foreword of the paper, "the extractive metallurgy of the sulfide ores of nickel and copper adhered staunchly to the perennial theme of roasting, blast furnace or reverberatory smelting, bessemerizing of furnace matte in side-blown converters followed by electrolytic or fire refining. The few important exceptions to this routine — such as electric furnace smelting of sulfide concentrates, ammonia leaching of native copper bearing ore, and atmospheric pressure carbonyl refining of nickel — only rippled the surface of an otherwise tranquil metallurgical pool.

"In recent years the technology of nonferrous extractive metallurgy has made rapid progress. Where once standard furnaces and electrolytic cells reigned supreme, we now find leaching and metal recovery from pregnant solution — both at atmospheric and elevated pressure — competing effectively, oxygen permitting the heretofore impossible in pyrometallurgy, solid and liquid ion exchange procedures playing an ever-expanding role, and bacteria accelerating leaching reactions.

"Now additional competitors are entering the field, including the top-blown rotary converter (TBRC) and the Inco pressure carbonyl (IPC) process."

Versatile Techniques

These Inco-developed processes are capable of economically treating a wide range of nickel-bearing materials. Their reliability and versatility in metal production from mineral concentrates, mattes, metallic intermediates, semi-refined products, refinery residues, process dusts and merchant scrap have been evaluated on a tonnage basis over a period of years at Inco's Port Colborne research establishment. The first application of the process will be to treat a combination of nickel crudes, pre-

cious metal-bearing intermediates and refinery residues.

Refining of these materials in this automated plant is only the forerunner of other far-reaching developments. The pioneer application of the TBRC to nonferrous extractive metallurgy opens new vistas in iron slagging, production of fire-refined metal, and metal anode making. The IPC operations will expand to encompass treatment of a number of other complex nickeliferous feed materials. The pressure hydrometallurgy and solvent extraction procedures employed for the residue treatment will also broaden the technological base of Inco's process metallurgy.

Simplifies Present Practices

This refinery will have an immediate beneficial effect on Inco's existing smelting and refining operations by simplification of smelter and electrolytic refinery practice, improvements in metal recovery, and centralization of precious metals concentration.

Feed preparation for the Inco pressure carbonyl refinery will be carried out in top-blown rotary converters of the Kaldo type. The complex feed mixture will be melted in the converter, top-blown with oxygen to a controlled amount of sulfur, and granulated. The product will be fed to the IPC plant where over 95 percent of the nickel will be extracted as nickel carbonyl for subsequent decomposition to pure nickel metal.

The residue from the IPC plant will be subjected to several hydrometallurgical treatments to extract and recover the contained copper, cobalt and sulfur, and to a smelting step to produce an alloy rich in precious metals.

Nonferrous metallurgists have long dreamed of, and tried to achieve, the direct conversion of molten nickel sulphide to metallic nickel instead of the relatively in-

efficient current two-stage method of roasting and reduction.

Inco pursued this apparent will-o-the-wisp intermittently over a period of 40 years, and finally its research department studies made clear the fundamental requirement for success — use of a turbulent bath such as generated in a top-blown rotary converter.

Continuous Rotation

The TBRC is a pear-shaped furnace, inclined at an angle and continuously rotated at speeds as high as 35 to 40 rpm. Oxygen is blown on the top of the turbulent bath through a lance, rather than into the bath through tuyeres along the side as with the Peirce-Smith converter. The furnace is from half to two-thirds full with a charge of about 50 tons.

The TBRC has made a place for itself in the steel industry in the Kaldo process, but predictions are that it will have a greater impact.

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AUTHORED PAPER



Paul Queneau



C. E. O'Neill



Alex Illis



J. S. Warner



New Office Building Boosts Efficiency at Garson Mine

A model of modern and efficient design, the smart new Garson office building is an end result of steadily rising production tonnages at the mine.

Increased change-house requirements in the old premises, which date back to 1939, and which were beginning to bulge uncomfortably at the seams, necessitated the construction of the three-storey structure now housing mine superintendent's office, engineering and geological departments, time and

efficiency offices, and staff change-room and lunchroom. Air-conditioned and electrically heated, the functional building has excellent illumination.

The original layout and requirements for the new building were prepared by the Garson mine engineering department, and the final design by local architects in conjunction with the general engineering department at Copper Cliff.



The 19-man engineering department occupies a large part of the third floor. In the foreground of this picture, taken in the brightly lit engineering office, production and engineering personnel discussing the development of a new load-haul dump area on the 3000 level of the mine are divisional foreman Wayne West, assistant layout engineer Wally Dittburner, general mine foreman Sam Pataran, mine engineer Ken Conibear, and assistant mine engineer Gus McLennan.



This look into the time office shows drift driller Gerard Sanche and shaft inspector leader John Mafin in discussion with mine accountant Ken Barlow regarding special vacations. The other members of the office staff who handle the time of the more than 7,000 hourly rate personnel at the mine are time clerk Bob Hughes, assistant mine accountant Vic Stone, and time clerk Ray Joly.



Busily preparing their statistics and progress reports on mine operations, the mine efficiency group are seen here in their new surroundings on the second floor. At their desks are contract engineers Don Austin, and Enzo Massimiliano, mine efficiency engineer Fred Birchall, contract engineer Allan Massey, and assistant mine efficiency engineer Arnold King. Shift boss Farrell Dussaine is discussing a problem with Fred Birchall.



The office of mine superintendent Bruce King (right) and assistant superintendent Harvey Bangle (in discussion with personnel officer Tom Scanlon) also doubles as a conference room. It is located on the second floor.



Shown inspecting ore and rock samples from various sections of the mine are members of the geological department in their new quarters on the third floor. In the foreground are mine geologist Jack Chalmers, geologist Ron Depluck, and assistant mine geologist Elwood Wohlberg. In background are Terry MacGibbon, Bill Brown, and John Angelini.

Retired on Inco Pension

BILL RYAN

Having weathered a heart attack and a stroke during the last nine months of his 31 years with Inco, service pensioner Bill Ryan is now devoting his full time to relaxation and recuperation. A native of Alliston, Bill joined the Company at Creighton in 1937, moved over to Frood in 1940, was operating a churn drill at the open pit

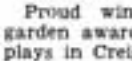


Mr. and Mrs. Ryan

when he transferred to Garson, and has been a powderman there for the last 10 years. He was married to Mrs. Doris Lecour in 1941. Her son has a family of five. The Ryans' home has a fine view of Lake Ramsey from CPR bay.

JOHN BALINT

A skiptender for the last five of his 32 Inco years, all of which were spent at Creighton, John Balint has retired on service pension. John came to the Company in 1937, seven years after he left Slovakia, the land of his birth. His bride of 1938, Anna Perenc, joined him in Canada in 1948; their daughter and two grandsons live in Czechoslovakia.



John Balint

Proud winner of many Inco garden awards for his floral displays in Creighton, John plans to grow even bigger and better blooms in the garden of his new home in Gatchell.

ALLAN FALCONER PRITTE

Allan PrITTLE, superintendent of the precious metals department, has retired on disability pension with over 42 years of Inco service at the Port Colborne nickel refinery.

His father, a Presbyterian minister, was called to Copper Cliff in 1906. Allan completed public and high school in Copper Cliff and Sudbury and received his



Mr. and Mrs. Prittle

master's degree in chemistry and geology from Queen's University in 1926, at the age of 21.

Allan became an analytical chemist in the general laboratory at the Port Colborne nickel refinery in 1926, when construction

of the plant's first electrolytic unit was underway. The first precious metals laboratory was established in the basement of the now Inco Recreation building, and the present laboratory was completed in 1937. Allan was named assistant superintendent under C. A. Knittel at that time, and promoted to superintendent in 1942.

Mary Titterton and Allan were married in St. Catharines in 1939. They have two children.

Allan was a tennis player of considerable local renown for many years, participating in Niagara District and Western Ontario competitions. He is a keen student of duplicate bridge. His wife has made a name for herself as an artist.

EMERSON YOUNG

Undisturbed relaxation at his cottage on Long Lake is what "Em" Young has in mind now that he's retired on special early service pension after 32 years with Inco at Frood.

Born in Montreal and brought up in Winnipeg, Perth, and Sudbury, he came to the Company in



Mr. and Mrs. Young

1936, two years after his marriage to Marie Bridgman. There will be excitement around the Young house around the middle of June when their family of one, daughter Cathy, will be married to Creighton machinist Allan Keller.

VERNER NEVA

Verner Neva's service record shows a modest 21 years with Inco, dating back to 1947 when he started at the copper refinery. Actually he was working with the Mond at Levack in 1923, at Garson in 1924, and at Creighton when he broke



Mr. and Mrs. Neva

his service to take up full-time farming on the Black Lake Road.

He was a storeman helper for the two years prior to his retirement on service pension. He and his wife, Aili Himanka when they were married in 1930, have a family of two, with four grandchildren.

The Nevases have sold the farm and have settled for a house and steam bath in Waters Township, with a camp on Black Lake.

JOHN SKELTON

One of the first things that disability pensioner John Skelton plans to do in retirement is to use his skills as a hobby carpenter to build himself a basement darkroom for his other pastime, photography.

Born in Kirkbride, England, John came to Canada with his



Mr. and Mrs. Skelton

parents in 1927, spent his teens on a Manitoba farm, and joined Inco at Copper Cliff in 1941. He worked for many years in the reverber building, and was a cottrell foreman when he retired after 27 years with the Company. His 1938 marriage to Myrtle Franklin took place in Winnipeg, and the couple have a family of three.

NICK BORUCH

Nick Boruch will be spending most of the coming summer on the end of his fishing rod dangling bait for the big ones in the Alban area. Service pension for the



Mr. and Mrs. Boruch

Stobie car repairman has come after more than 33 years with Inco.

Toronto was where Nick settled after leaving the Ukraine in 1928, and he started with the Company at Frood in 1935, five years after his marriage to Jenny Pawlak. Nick and his wife have two daughters.

ANGELO CONDOLTA

Angelo Condotta's life would have been very different if he'd stuck it out as one of a group of six young farmers who were the first to cul-



Mr. and Mrs. Condotta

tivate part of the Holland Marsh north of Toronto in 1930. But depression knocked the bottom out of the celery market and in 1936 Angelo headed for Sudbury; he

joined Inco at the Copper Cliff smelter in 1939. Retired now on service pension, he spent the last 20 of his 32 Company years as an electrical department lineman servicing the slag dump trolley wires.

He and his wife, Irma Marcolini when they were married in Copper Cliff in 1939, have a family of four, with one grandchild. Their retirement plans include a trip to Paese, Italy, the town that Angelo left for Canada in 1928.

"TED" CAMPBELL

"Ted" Campbell, popular Port Colborne nickel refinery police sergeant, has elected special early service retirement. He joined the plant security force in 1935, and



Mr. and Mrs. Campbell

was appointed sergeant in 1961. He was born in Niagara Falls in 1908.

His marriage to Mary Jones took place in Welland in 1928.

Fishing ranks high among Ted's many interests and he especially enjoys a good feed of brook trout caught in the key spring-fed streams around Golden Lake in the Pembroke area. Both Ted and his wife are interested in target pistol shooting and knife throwing. Ted is also an ardent rose fancier and has converted his large vegetable garden into rose beds.

He and his wife expect to travel rather extensively.

ROY MOSKAU

"I guess I ducked the cares and worries of a married man," was the way that service pensioner



Roy Moskau

Roy Moskau explained his youthful countenance and springy step. Roy has spent his 34 Inco years in the Copper Cliff smelter converter building, most of them as a baleman.

Born in the Ukraine, he left there for Canada in 1924,

and spent 10 years driving a team near Winnipeg before joining the Company in 1934. An ardent bingo fan, Roy enjoys the friendship and the excitement of the big games.

JOE BACIK

As a copper inspector at the copper refinery, Joe Bacik has put his stamp of approval on count-



Mr. and Mrs. Bacik

less tons of the red metal during his 34 years with Inco. A special

inspector, he has retired on service pension.

Leaving Czechoslovakia in 1927, Joe joined a brother in Hamilton, then came to the copper refinery in 1934. His wife, Anne Jakubcin when they exchanged vows in 1926, joined him later.

They have a family of three. Son Joe is a senior stores clerk at the Stobie warehouse, and daughter Ann is the wife of Copper Cliff crushing plant binman Art Maestrello. Four grandchildren round out the family.

ARTHUR HUNTER

A plate worker at the copper refinery, where he has worked since he joined the Company, Arthur Hunter has retired on special early service pension after



Mr. and Mrs. Hunter

33 years with Inco. A native of Buxton, Derbyshire, England, he was transplanted to Canada at age 12 when his family settled in Massey. His bride of 1929 was a Massey girl, Agnes Schrader, and the couple have a family of three, with two grandchildren. Mr. and Mrs. Hunter will continue to reside in Sudbury.

DUNCAN PURCELL

A haulage truck driver for 23 of his 38 years with Inco, Duncan Purcell has retired from the Clarabelle open pit on service pension. "I could put in another five years easily," he said, "I feel that



Mr. and Mrs. Purcell

good. But the calendar finally caught up with me." Born in Lakeview, Quebec, and raised on a Monetteville farm, Duncan married the town's schoolteacher, Grace Richmond, in 1929. Carrying on the family tradition, their two daughters are teaching school. Two grandsons complete the family.

STEVE SVEDA

Steve Sveda has decided to live out his retirement in the Port



Mr. and Mrs. Sveda

Colborne area. He and his wife visited Florida but prefer the

Niagara region where their friends are.

Steve was born in Turulung, Hungary in 1904. He farmed and did bush work prior to serving two years in the Roumanian infantry in 1926 and 1927. A year after his discharge, he married Rosie Gabori in his native village.

He came to Canada in 1930 and worked at construction and farming before becoming employed in the Port Colborne nickel refinery's leaching and calcining department in 1936. His wife and two oldest sons joined him in the fall of 1937.

Mr. and Mrs. Sveda have three sons, one of whom, Andy, is employed at the nickel refinery and has 18 years' service. They have eight grandchildren.

TONY ZILIO

Blast furnace feeder boss at Copper Cliff since 1960, Tony Zilio has retired on special early service pension after a grand total of 40 years with Inco. Born in Roma, Italy, he left home to join his



Mr. and Mrs. Zilio

brother in Copper Cliff in 1927, and the same year started work in the smelter yard. He moved to the Orford building as a baleman, two years later.

Yolanda Nardi and Tony were married in Sault Ste. Marie in 1939, and have two daughters and two grandchildren. Long time residents of Copper Cliff, they will continue to reside there.

ANTHONY PEVATO

It was in 1927 that Anthony Pevato left his home in northern Italy to join his uncle on a



A. Pevato

Garson farm, and in 1928 when he started what was to be 39 years with Inco at the Copper Cliff smelter. Now retired on disability pension, Anthony has worked as a pumpman in the separation building for the last 20 years.

A Coniston girl, Adelina Cerantola, became his bride in 1936, and the couple have a family of two, with three grandchildren. Son Leo, safety supervisor at the copper refinery, is a course leader with the Company's current supervisory leadership program. Long-time residents of Copper Cliff, the Pevatos plan to spend Anthony's well earned retirement years there.

STEVE STORONIAK

Well known to the daily traffic in and out of the Frood mine changehouse, Steve Storoniak worked there as dry man for the last 15 of his 34 years with Inco. He has retired on service pension. Born in the West Ukraine, Steve made his move to Canada in 1929, and to the Company at Frood in 1935.

He and his wife, Anne Hnidec



Mr. and Mrs. Storoniak

when they were married in 1930, have a family of two sons. The couple will continue to live in Sudbury. Their favorite summer activity is pulling the pickerel out of Lake Nipissing at Sturgeon Falls.

GERRY MCKINNON

Shift boss Gerry McKinnon has retired on early service pension from the Copper Cliff smelter, leaving behind him a proud record that will be hard to match. Late



Mr. and Mrs. McKinnon

last year, he and his men completed 1,000,000 consecutive safe shifts accumulated over more than 12 years, a "first" for the converter department. "I had a wonderful bunch of men," said Gerry who has been with Inco for 39 years.

Born on Allumette Island, he started as a tuyere puncher in 1929, and was a skimmer when made shift boss in 1949. Gerry's first wife, Alma Martel whom he married in 1933, died in 1959 leaving him with a family of five. His 1962 marriage to Mrs. Clara Bennett added two more to the group.

Son Ray works at the Copper Cliff mill. Harry is a maintenance scheduler at Copper Cliff, Joan is the wife of Levack miner Bill Quenville, Margaret is married to Levack driller Ivan Jobin, and Betty to Copper Cliff crusherman Ross Grooms. Seventeen grandchildren complete the family.

ROY CHESKOWSKAS

A stoop leader at Garson for 29 of his 34 Inco years, Roy Cheskowskas has retired on special early service pension. He left Lithuania for Canada in



R. Cheskowskas

1928, joined the Company at Copper Cliff in 1934, and moved to the Garson sand pit the same year. He has worked underground since 1939. Pauline Urbas became his wife in 1936 and the couple have a family of four, with five grandchildren. Figuring he's been a miner long enough, Roy will be looking for a light job to keep him active in retirement.

ALEX RAYMOND

Alex Raymond's 28 years with the Company at Garson were spent as a powderman, motorman, and tool fitter. A native of Garson,

the disability pensioner came to Inco in 1939, exchanged vows with Jeanne Leblanc in 1944, and has a family of three. Daughter Lucienne is the wife of Bob Sheppard, who works in the converter building at Coniston.



Mr. and Mrs. Raymond

Retirement has switched things around in the Raymond home. Alex is now the housekeeper while Mrs. Raymond applies herself as a nursing assistant at the Sudbury General Hospital.

ED LEECH

Since his retirement on service pension from the Copper Cliff smelter machine shop, after 32 years with Inco, Ed Leech has cherished the thought of combin-



Mr. and Mrs. Leech

ing his love of the ocean with his favorite game of bridge, and embarking on one of those three-month card playing cruises he's read about.

He was born in Rankin, near Pembroke, and served as an engineering artificer during four years in the Canadian Navy during world war two.

A machinist since he joined the Company in 1936, Ed married Leona Whitmore of Pembroke in 1947 and they have a family of two. As stand-in for Mrs. Leech, who is head nurse on the medical floor at Sudbury Memorial Hospital, Ed will continue as head cook and bottle washer at home until his dream cruise ship comes in.

ORPHIR LALONDE

Orphir Lalonde did a lot of soul searching before he finally decided to take an early service pension.

"I've been with Inco for nearly 40 years," he said. "It's a good place to work and I hated to leave, but I figured that while I'm in good health I might just as well enjoy the benefits of being a pensioner." Born near Ottawa and brought up in Ham-

O. Lalonde

mer, Orphir started at Frood in 1929 and as a blacksmith has sharpened steel since 1940. A bachelor, he will be devoting much of his time to caring for his mother, who is 91. "I figured I'd enjoy sleeping in," said the pensioner, "but it's hard to kick the habits of nearly half a century and I still get up with the birds."

Len Tremblay and Ed Cuddy in Suggestion Plan Spotlight



Two major Suggestion Plan awards of \$1,000 each were posted at Copper Cliff last month by Secretary Brian White. On the left above J. B. McConnell, manager of reduction plants, is shown presenting the big award to Ed Cuddy at Copper Cliff, now a maintenance foreman, while maintenance superintendent Fred Burchell stands by to offer his congratulations. On the right superintendent R. H. Brown of Crean Hill mine makes the \$1,000 presentation to Len Tremblay, formerly a welder at Crean Hill and now a maintenance foreman at Frood-Stobie mill; pleased observer is Tom Parris, assistant to the manager of mines. Len's bonanza idea was to install adjustable steel bumper beams, instead of wood beams, on ore chutes, greatly reducing maintenance costs. Ed Cuddy's suggestion resulted in reduced maintenance costs on flash furnace screw conveyors. Both improvements were given lengthy trials to determine their value. During February a total of 40 Suggestion Plan awards were issued at Copper Cliff, aggregating \$3,255.00.

Appointments (ONTARIO DIVISION)

J. B. McConnell, manager of reduction plants, announced the following appointments at Copper Cliff, effective February 1:

H. R. Butler, technical assistant to manager, reduction section;

R. J. Neal, superintendent, reverb department;

W. E. Lawson, superintendent, converter department;

E. H. Capstick, assistant superintendent, mill.

H. R. BUTLER

Born at Harrow, near Windsor, Ontario, Robert Butler attended Albert College and then Michigan

Technological University, from which he graduated in 1951. He then joined International Nickel at Copper Cliff, where he had worked for two summers in the copper refinery.

Starting in the smelter reverberatory department where he became a relieving general foreman, he later served as combustion engineer. He was transferred in 1961 to the Iron Ore Plant, where he became assistant superintendent. He returned to the reverberatory department and was appointed superintendent in 1967.

He is married, with two daughters. Golf and his summer camp at Fairbank Lake are favorite recreations.

R. J. NEAL

Joining International Nickel in 1952 in the smelter efficiency department at Copper Cliff, Bob Neal became plant engineer and then combustion engineer. He was appointed assistant superintendent of the reverberatory department in 1963, after serving as a general foreman, and two years later became superintendent of converters. His marriage to

Irene McCandless of Copper Cliff took place in 1954. He has one son.

Curling and a summer camp at Long Lake are his favorite recreations. He takes an active part in community affairs, having been a member of the Copper Cliff public school board until its recent disbandment, and serving on the executives of the Sudbury district Red Cross and Boy Scouts Association.

He was born at Moncton, N.B., and graduated from Acadia University at Wolfville, N.S. in 1952 with a B.Sc. degree in mathematics and physics.

W. E. LAWSON

Elliott Lawson has come up through the ranks in the converter building at Copper Cliff smelter, where he started to work at the age of 17 in 1936. He became a shift boss in 1946, a general foreman in 1952, and assistant superintendent of the converter building in 1956.

Born in Sudbury, he graduated from Sudbury Mining and Technical School.

He was married at Sudbury in 1948 to Lena Lauzon, and has two sons.

His chief recreation is his summer camp at McParlane Lake.

E. H. CAPSTICK

Holding the rank of captain after service overseas with the Royal Canadian Engineers in World War 2, Elmore "Cappy" Capstick went into militia work at Sudbury and in 1960 was appointed for a term as commanding officer of the 58th L.A.A. Regiment, R.C.A., with the rank of lieutenant-colonel.

Born in Winnipeg, he attended school in Calgary and Orillia before graduating from Queen's University, Kingston, in 1933 with a

degree in chemical engineering.

He joined International Nickel in the mill at Copper Cliff, where he became a general foreman in 1958 and assistant to the superintendent in 1967.

His marriage to Melba Jean Stout took place at Kincardine, Ontario, in 1938, and has a family of four, with four grandchildren. His son Ron is a member of the electrical department at Copper Cliff.

A continuing interest in the militia, and golf and curling, are his recreations.

Appointments

(MANITOBA DIVISION)

R. L. Hawkins, chief engineer, Manitoba division, announced the following appointments effective February 1:

H. G. King, assistant to the chief mines engineer;

R. D. McLatchy, mine engineer, Thomson mine;

W. R. Niemi, mine engineer, Soab mine;

G. D. Marshall, mine engineer, Pine mine;

G. G. Harley, senior engineer (administration).

H. G. KING

Following graduation from high school in his home town of Niagara Falls, Ontario, Bert King was employed for seven years as an architectural draughtsman and instrument man. Joining Inco in 1934 at Frood mine, he worked on stope and development survey until his transfer in 1941 to Garson. There during the following 12 years he was successively layout and efficiency engineer, shift boss, and safety engineer.

Moved to Creighton mine in 1953, he was caving control engineer until his transfer in 1958 to Thomson, where he has been senior stope layout engineer, planning engineer, and mine engineer of Thomson mine.

He is married, with one daughter and two sons.

R. D. McLATCHY

A Manitoba man, R. D. McLatchy was born in Killarney. He graduated from Nova Scotia Technical College in 1963 with the degree of bachelor of engineering in mining.

Joining International Nickel at Thompson in May, 1963, he was appointed chief mine planning engineer early in 1968.

His marriage to Hope McKenzie took place at Lockeport, Nova Scotia, in 1960. He has two sons. His recreations are fishing, camping, and curling.

W. R. NIEMI

Born in Copper Cliff, W. R. Niemi went on from high school to the Provincial Institute of Mining at Haileybury, then attended Queen's University at Kingston where he received a B.Sc. degree in mining engineering. During summer vacations he worked at Frood, Creighton and Levack mines and also in the reduction works at Copper Cliff.

He joined International Nickel at Thompson in 1963, was a layout and mine planning engineer.

He was married in 1958 at Picton, Ontario, to Mary Hutton, and has two sons.

Hunting, fishing and curling are his favorite recreations.

G. D. MARSHALL

Truro, Nova Scotia, was the birthplace of G. D. Marshall, who attended Nova Scotia Technical College and graduated with the degree of bachelor of civil engineering.

He came to International Nickel at Thompson in the spring of 1964.

His marriage to Anne McCurdy was solemnized at Truro, Nova Scotia in 1963, and he has two daughters.

He enjoys hunting, fishing and curling.

G. G. HARLEY

Gordon Harley became a member of Inco's mine engineering department at Creighton mine in 1947, and transferred to the mine engineering department at Thompson in January 1959.

His new duties involve him in the general engineering activities at Thompson.

He is a graduate of McGill University, Montreal, with a degree in engineering (mining).

He served from 1942 to 1946 in the R.C.A. in World War 2.

His marriage to Mary Spencer, also in the services with the army medical corps, took place at Gananoque, Ontario, in 1943. They have two daughters.

He lists curling, golf and bridge as his favorite pastimes.



R. D. McLatchy



W. R. Niemi



G. D. Marshall



G. G. Harley



H. G. King



H. R. Butler



R. J. Neal



W. E. Lawson



E. H. Capstick



Leo Pavata, conference leader

Will Digby
Training Co-ordinatorHarold Waller
Conference leader

John Ricketson, conference leader

"College of Supervisory Knowledge"

More than 600 of the 1,100 slated to receive training at International Nickel's supervisory leadership course have completed the four-day seminar and received their certificates.

The "college of supervisory knowledge" is being enthusiastically acclaimed for its broad insight of the attributes and techniques of a successful leader. Training co-ordinator Will Digby and his staff of conference leaders have received many congratulations on the effectiveness of the course.

In the classes held at the Inco Club, Sudbury, programmed instruction including film presentations and visual case studies is followed by lively informal discussions in which the ideas and experiences of each member are freely explored.

Front-line supervision, senior supervision and management attending the conference, indicating its importance to the Company's employee relations program.

Typical Class Represents All Mines, Plants

Mike Opaleychuk
Clarabelle PitDon Cataford
Frood-StobieSweeney Rautiainen
Frood-Stobie millGerry Pidgeon
C.C. millChris Crowder
Iron Ore PlantGerry Lacroix
Frood-StobieJoe Diduch
Copper RefineryWilbur Herman
Crean HillD. St. Germain
Garson mineOmer Marois
C.C. smelterJohn Donoghue
C.C. metallurgicalHarold Wilson
C.C. MaintenanceEarl Todd
C.C. smelterBob Burford,
Murray mineDoug Anderson,
Creighton mineGeorge Johnson,
Little Stobie

Angus Strachan, Coniston; Malcolm Mason, Levack



With part of the Easter Parade formed up behind her, Mrs. Wolfe gives a handsome bunny his candy eyes so he can see where he's going and not bump into the panda bears.

Easter Parade

In the basement of an attractive little home on Tennessee Avenue in Port Colborne was a sight to send small boys and girls pop-eyed with excitement.

It was the annual Easter Parade of novelties in Luella Wolfe's candy factory, and as if the vision of shelves and tables laden with richly gleaming goodies wasn't enough to make a young visitor squirm with instant hunger, over it all hung the sweet smell of melted chocolate, nectar of the junior set.

By the time Easter arrives it'll all be gone, spirited away to bring joy to the hearts and tummies of

children in many parts of the Niagara Peninsula.

"Chief cook" of the establishment during his spare time from the Port Colborne nickel refinery is Mrs. Wolfe's husband Charles, a metallurgical sampler with 33 years of Inco service behind him. He is the son of Inco pensioner "Manny" Wolfe.

John Kramer of the refinery personnel department is the son of Mrs. Wolfe from her marriage to the late Vincent Kramer.

Easter Bunny Is King

The traditional Easter bunny is the king of the mouth-watering parade, and he comes in 15 different poses and sizes up to 18 inches tall. Among his chocolate retinue are fat hens on nests filled with colored candy eggs, cute ducklings, sad-faced dogs, strutting roosters, saucy squirrels, and important looking panda bears.

The pandas are a specialty of the house — ivory chocolate is used to give them cream-colored vests, mitts, snouts and ears.

"The good old chocolate Easter egg, no matter how fancy it's decorated, doesn't sell so much any more," said Mrs. Wolfe, the pleasant proprietress of the thriving factory. "Children nowadays prefer animals or birds — just as long as they can eat them."

Other specialties are religious articles cast in chocolate, such as the immortal scene of the Last Supper. One Sunday School in Welland annually orders 300 crosses decorated with candy flowers as an Easter gift for the children.

50 Different Novelties

About 1,500 pounds of the purest milk chocolate is used in the annual production of Christmas and Easter treats from Mrs. Wolfe's factory, which is a hive of activity

during four to five months of the year. Some 50 different novelties are turned out, as well as boxed chocolates.

Most of the production is sold through drug stores in the Niagara district, but a great deal is picked up by customers who come personally with their baskets to select an assortment. The wares have a wide-spread reputation for that "home-made" taste and high quality.

Purchased in big slabs, the pure milk chocolate is melted in a vat to 120 degrees and then slowly cooled back to 80 degrees, at which it is maintained by thermostatic control. Instinct born of long experience tells when it is just right for casting.

Moulds Come from Germany

The intricately designed tin moulds, imported from Germany and much preferred by Mrs. Wolfe to plastic substitutes, must be cool and free of moisture. When one is carefully filled with the hot chocolate, with frequent shaking down to eliminate air bubbles, a shell quickly hardens over the mould's inner surface, and the balance of the chocolate is then poured off. After cooling for an hour the halves of the mould are separated and — presto! — there's Mr. Bunny, all ready to get his candy eyes and a ribbon around his neck.

Casting the two-tone panda bears to give them those sporty trimmings is a painstaking double operation. With the mould open the parts of special ivory chocolate are first carefully coated by hand and left to harden. Then the mould is closed and the balance of the figure is cast in conventional chocolate. No wonder the pandas have such a superior air about them!



Charles Wolfe, a nickel refinery veteran with 33 years' service, puts in a lot of his spare time helping his wife with the chocolate novelty production. Here he fills the mould of an 18-inch rabbit.

THE IRISH OF IT

Pat and Mike were hunting. Pat saw a duck far overhead, gave it both barrels, and to his delight saw the bird wheel over and plummet to the ground.

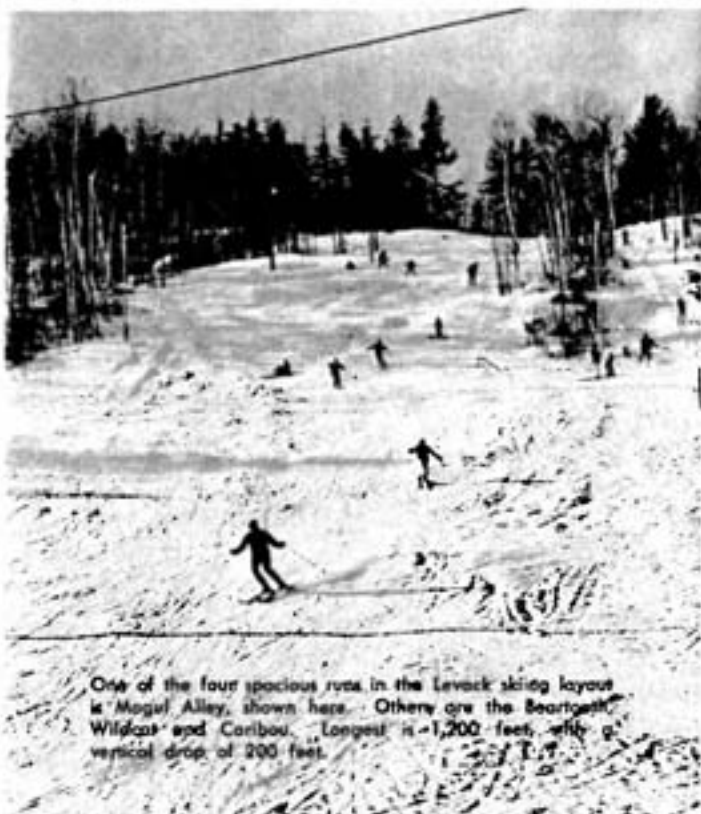
"Ye wanted that powder, Pat," said Mike reprovingly.

"Got the bird, didn't I?"

"Yis, but the fall would have kilt him."



This may be hard for most kids to understand, but when young Scott Wolfe, 7, comes in from school he'd sooner have a banana or an apple, or maybe some cookies. Chocolate goodies from his mother's candy novelty factory are old stuff to him.



One of the four spacious runs in the Levack skiing layout is Mogul Alley, shown here. Others are the Beartooth, Wildcat and Caribou. Longest is 1,200 feet, with a vertical drop of 200 feet.

Levack's Fine Ski Facility Built by Hardy Volunteers

The community spirit and hard work of a little group of enthusiasts has paid off handsomely for Levack in the excellent skiing layout on the range of hills at the north end of the town.

Four good downhill runs have been cleared and developed, all served by an electric rope tow, with ideal areas for beginners as well as slopes to satisfy the more experienced intermediate skier.

There was a registration of 70

in the ski school this winter, including several very promising young prospects for Canadian Olympic teams of the future. Director of the school is Mrs. Alan Smeeth, and on her staff of instructors are Michael Keast, James Corkal, Michael Mallette, Allan Kanerva, Scott Goodyear, Peter Keast and Robert Cullis. Two teams from the club, each with 13 members, took part in the district Nancy Green Little League competitions for skiers under the age of 14.

Levack Ski Club's busy program provides week-end skiing, Wednesday afternoon lessons for junior skiers, Thursday night skiing, and Thursday night lessons for adults. The tow operates from 10:00 to 4:00 on Saturdays and Sundays.

Present club membership is 150. Season rates are \$10.00 for adults and \$5.00 for students, with a maximum fee of \$15.00 for the whole family.

It was back in 1959 that development of recreational facilities was launched by a playground association of residents in the northern section of the town with the building of an outdoor skating rink at the end of Oak Street, and investigation of the possibilities for a ski hill.

The following year the laborious job of clearing one trail was started. The hill was covered with heavy brush, and there were many rocky outcrops to be drilled and blasted, but the enthusiastic volunteers kept hacking and hewing away in their spare time. In subsequent years more trails were cleared until now there are four — Beartooth, Mogul Alley, Wildcat

Levack Ski Club's executive; standing, Ernie Mallette, Bob Diebel, Al Smeeth, Frank Corkal (secretary - treasurer); seated, Roy Pulvermacher, George Keast, Forest Goodyear (president). All except newcomer Pulvermacher are club pioneers who worked hard to clear the trails and install the tow.



Some of the club's ski school instructors are shown here: Allan Kanerva, Michael Mallette, Mrs. Phyl Smeeth (ski school director), Michael and Peter Keast.



Mrs. Smeeth is shown with a class taking a lesson in turns: Debbie Goodyear, Wayne Lawrence, Shawn Gary, Terry Lawrence, Janet Ludgate, Gregory Keast, Chris Ryter, and Gary Pulvermacher.

and Caribou. The shortest run is 800 feet and the longest about 1200 feet. The vertical drop is about 200 feet.

In 1964 the playground association was disbanded and the Levack Ski Club formed. Work on installation of the ski tow was started in 1965 and it went into operation in the winter of 1966-67.

Within easy walking distance of homes in the north end of the town, Levack's ski facility is a real boon to the community, which owes a king-sized debt of gratitude to the hardy band of citizens responsible for its development and operation.

Lively's First

Continued from Page 7

and a snowmobile race was won by Lou Kehoe.

Other highlights included hockey games, with Lively Old-Timers playing Lively High, and Pee-wees

versus mothers. There was also broomball, a figure skating display, and skating races. An elevated ice slide was polished steadily by the snowsuits of hundreds of excited youngsters.

Hot dogs and hot chocolate sold like they were going out of style, and a local church group provided a hot chili and casserole lunch at the high school.

Two dances rounded out the day, a moccasin affair at the ice rink for the teenagers, and a packed house at the Copper Cliff Italian Club for the adults.

Co-chairman for the two sponsoring organizations, Jack Cooper of the Lively Athletic Association and high school principal Charlie Tuttle of the Lively Lions Club, together with the two club presidents, Al Este and Ray Schmidt, are to be congratulated together with their hardworking committees for a very successful winter carnival.



With both his parents ardent skiers, naturally young Stephen Smeeth got into the act as early as possible. Here he is, 14 months old, about to ride up on the T-bar with his dad Al.

New Refinery Will Use Two Big Innovations in Nickel Metallurgy

Continued from Page 8

on the nonferrous industry. The combination of surface blowing and mechanically induced turbulence improves the performance of the essential functions of converting, and also renders them largely independent of each other, thereby increasing its flexibility.

Inco has gained a wealth of experience with its direct nickel conversion process by operation of a 7-ton TBRC at its Port Colborne research complex. Two 50-ton Kaldos converters are to be installed at Copper Cliff, but one unit operating full time is capable of producing nearly the entire scheduled output of 275 tons per day of IPC feed, which will be granulated.

Carbonyl Refining Since 1902

In describing the new Inco pressure carbonyl process, the Queneau-O'Neill-Ilis-Warner paper notes that the International Nickel Company of Canada, Limited, through its subsidiary International Nickel Limited (formerly the Mond Nickel Company), has been engaged in carbonyl refining of nickel since 1902.

The process is based on the historic discovery of Carl Langer and Ludwig Mond, who found that carbon monoxide at atmospheric pressure and at temperatures between 40 degrees C and 100 degrees C will react with "active" nickel to form a colorless gas identified as nickel carbonyl. They further demonstrated that the reaction is readily reversible by heating the nickel carbonyl to temperatures in the 150-300 degrees C range to yield pure nickel and carbon monoxide. Because at atmospheric pressure the carbonyl-forming impurities in crude nickel metal do not enter the gas phase, the process is highly selective.

Inco's refinery at Clydach, Wales, still uses the basic concept of the Mond-Langer process, but many

innovations over the years have greatly increased its efficiency. It produces pure metal pellets and powders from nickel oxide sinter shipped from Copper Cliff.

The basic simplicity and high efficiency of the carbonyl extraction concept has fascinated the Inco process research group, and a comprehensive long-term effort was initiated about 20 years ago to broaden the utility of the process.

Broad New Concept

Nickel in its sulphide ores is usually intimately associated with iron, cobalt and copper, which hinder carbonyl formation at atmospheric pressure. The Inco pressure carbonyl process was accordingly developed to permit simultaneous extraction of nickel, cobalt and iron — the natural trinity — from mineral concentrates and smelter or refinery intermediates.

This new technology, the result of a major process research team effort, is believed superior within its field of application to any known alternative.

The main extractive phase of the process, following suitable feed preparation in the Kaldos furnaces, employs carbon monoxide at moderate temperatures up to about 180 degrees C and pressures of some 70 atmospheres. Under these conditions carbon monoxide has unique and sharply selective affinity for active nickel, cobalt and iron. Carbonyls of these metals are obtained, are readily separated because of their markedly differing properties, and are decomposed to metal at atmospheric pressure and below 280 degrees C.

Nickel as Powder or Pellet

Nickel can be produced either as powder or pellet, and iron and cobalt are produced as powder. Metal output in alloy composite powders is one of the many attractive potentials of the process.

One hundred million pounds per year of nickel will report as nickel pellets, and 20 million pounds per year as nickel powder. An iron-nickel carbonyl mixture will be decomposed to yield an annual 5 million pounds of iron-nickel powder. Cathode copper and cobalt oxide will also be produced.

The process will also centralize production of precious metals concentrate for treatment at the Company's Acton (England) refinery. The combined feed to the IPC plant will contain over 95% of the platinum group metals present in bismuth matte produced at the Copper Cliff, Coniston and Thompson smelters.

Port Colborne

Continued from Page 6

previous "best seller". Co-starring with her was Dominic Favero, making his first appearance since playing the King in "The King and I" in 1960. He was completely believable as "Leadville" Johnny Brown, the miner who struck it fabulously rich and was willing to blow it all on his beloved Molly.

Especially notable among the cast of 80 were Ed Kalalief and



Horse Race Novel Safety Booster

Continuing the emphasis on safety, the Thompson mines department has inaugurated a safety horse race in which each crew is represented by a nimble nag.

Each horse is "jockeyed" by a shift boss and every week the crews which have had no lost-time injuries or dressings advances one spot closer to the finish mark.

Explaining the "track rules" in the above picture is mine safety

engineer Herman Rohwer; on the left, standing, is Bruce Thompson, shift boss on 601 level at Thompson No. 1 shaft, and members of his crew are (front row): A. Olivier, John Knczek, L. Doetzel, Peter Ewaskow, Roman Skorsetz and Tony Chamberlain; back row: Ronald Stadynek, Richard Purves, Peter Reid, Abdelkader Ghiata, Donald Wilson, Lionel Hutchings and Dale Roberts.

\$2,000 Lift for Thompson Ski Club

Executive members of the Thompson Ski Club swept down the slopes into the arms of "Good Dame Fortune" recently. The windfall was a donation of \$2,000 by International Nickel.

The Thompson Ski Club, with a membership of 145, has three runs from 800 to 4,000 feet in length at its new layout on Mystery Mountain. The runs are served by a poma lift.

The work of clearing the slopes, installing the tow and preparing the area for skiing has been done entirely by the club members. Through the Inco donation and proceeds of club functions, a capital fund has been established.

John McCreedy, assistant vice president and divisional general



manager, presented the Inco cheque to ski club president Bert Ingebritson (right). On hand for the ceremony were executive members Don Cameron and Madeline Fregren. The \$2,000 has been earmarked for the cost of the poma lift, which was made in France.

With the installation of the new lift and completion of a chalet due next year, the Thompson Ski Club will be the most modern in Manitoba.

the orchestra under the direction of Robert Wood. The very competent pianists were Marilyn Skidmore and Gladys Neal, and Pat Goss was prompter.

Stage manager Graham Mitchell and his crew had their work cut out for them with the show's 28 scene changes, but they were right on cue. Makeup artists and others in the backstage complement of 20 also deserved praise for their efforts. Backing them all up was a live business staff managed by Bette Kalalief.

Three-dimensional scenic effects painted by Jim Crawford, and rich costuming by Mallabars, put the finishing touches to a highly professional production.

Negotiations Start Early

The International Nickel Company of Canada, Limited, and locals 6500 and 6200 of the United Steelworkers of America have agreed to begin negotiations for new collective bargaining agreements almost a month ahead of schedule.

Negotiations will begin on March 18, some four months before the July 10 expiration of the present contract, which covers approximately 17,200 hourly paid employees at Inco's nickel mining and refining operations in the Sudbury District and Port Colborne.

The present union agreements provide that negotiations shall begin between 60 and 90 days prior to expiration of the contract. However, in view of the many matters to be discussed, and in an effort to insure that there is not an interruption of employment or production, International Nickel proposed an early commencement of discussions. The union promptly agreed.