

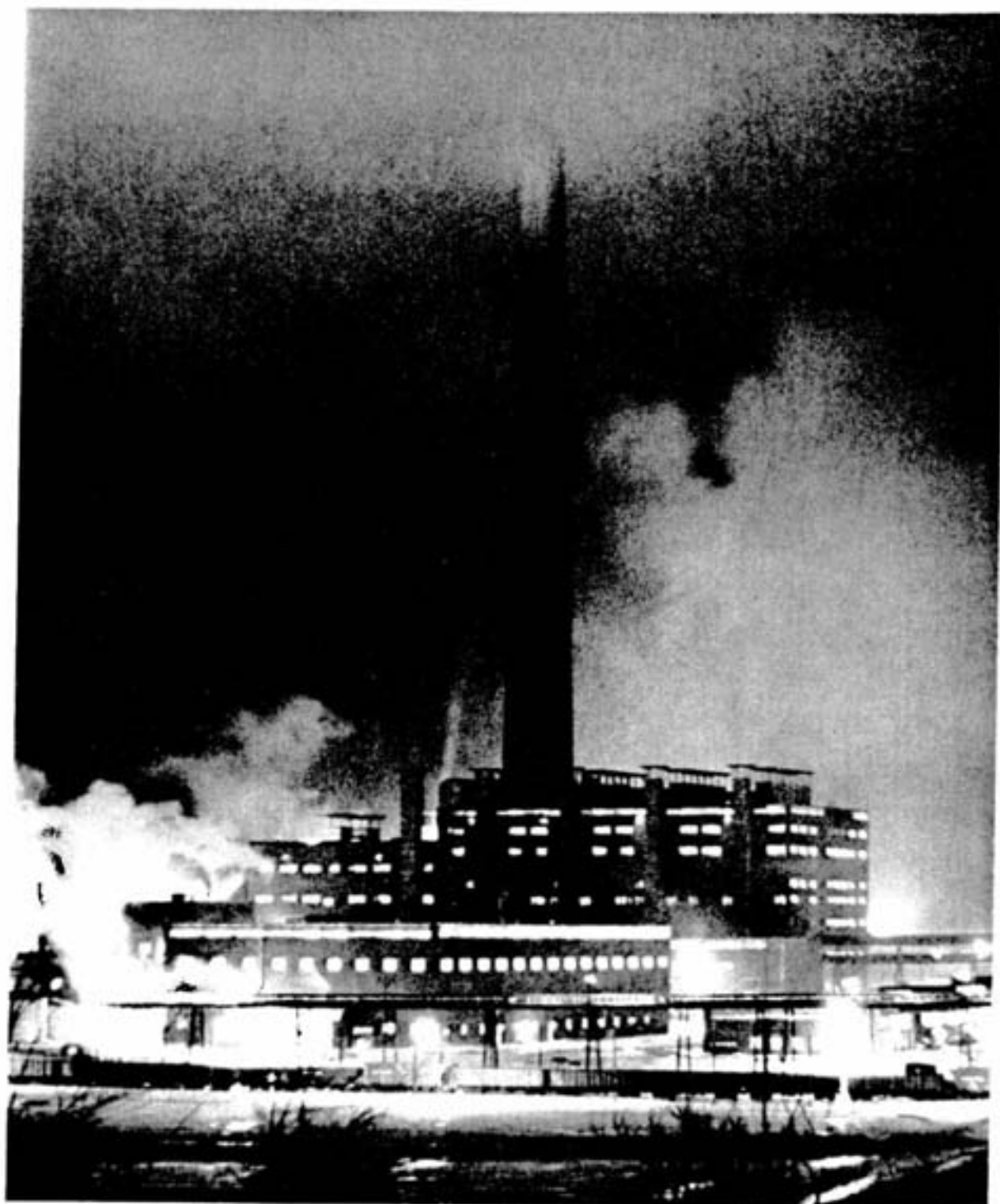
INCO TRIANGLE

VOLUME 24

COPPER CLIFF, ONTARIO, JANUARY, 1965

NUMBER 10

Home of the Fourteenth Element
(Story on Page 4)





Published for all employees of The International Nickel Company of Canada Limited.

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Precious Platinum Once Of No Value Most Useful Today

The platinum-group metals, recognized today as being among the world's most versatile and useful metals, were, at one time, thought of as nothing more than a nuisance.

In this respect they resemble the nickel with which they are associated in Inco's Sudbury district ores. Nickel too was once regarded as a nuisance.

During the 16th century, when first discovered by the Spanish conquistadors in South America, platinum was considered "unripe gold" and was tossed into rivers and streams for "ripening."

Today well over one million troy ounces of platinum-group metals are used annually by a large number of industries in a wide variety of key applications throughout the world.

The true characteristics and value of the precious metal platinum were not recognized until a sample was brought to England from South America. In 1750 it was identified as a new substance and became the eighth metal recognized by man.

Exhibiting similar noble properties, platinum, palladium, rhodium, iridium, osmium and ruthenium, are all members of the precious platinum group.

Canada, South Africa, and the Soviet Union are the world's primary sources of the precious metal platinum. From the mid 1850s until 1914, Russia was the largest single source of platinum. Today, however, a major part of the world's supply of platinum is extracted from the nickel ores of The International Nickel Company of Canada, Ltd., in the Sudbury District of Ontario.

Forty years ago nearly 65 per cent of the annual consumption of platinum-group metals in the United States was for use in jewelry. Although consumption of the metals has since increased more than five times, only about 6 per cent of the platinum-group metals used in the United States still goes into jewelry.

Platinum is used by the petroleum industry for the upgrading of gasoline. With the aid of platinum catalysts, the molecules of lower-grade fuels are rearranged into high-octane gasoline.

Platinum, in the form of fine wire screen, is used as a catalyst in the production of nitric acid from ammonia. It is used similarly



The White Wood of Winter

in production of nitrates for the agricultural industry.

Aircraft sparkplug electrodes are made from the precious metals platinum or iridium to provide long, reliable service and to withstand attack by corrosive compounds in aviation fuel.

In communication satellites, thousands of thin slices of man-made sapphires are set in platinum frames to protect the assembly of the solar cells which power the satellites.

Platinum-group metals are widely used in crucibles for melting optical glass, in bushings for extruding glass fibers, and in spinnerets for making rayon.

Joe Pen

A cheerful and popular figure around the general office at Copper Cliff Joe Pen has retired on



Mr. and Mrs. Pen

pension. Joe's job was keeping the entrances, walks and other areas in shipshape, and winter or sum-

mer he had a smile and friendly word for all. His many friends wish him well.

During his first year in Canada Joe worked a few months on a farm in Manitoba then headed for the lakehead and a job in the freight sheds. Two years later he arrived in Sudbury, worked with Fraser-Brace on the Copper Refinery construction and the following year got a job there.

In 1931 he transferred to the smelter, punched tynes for a dozen years, then joined the transportation department. He had worked around the office building since the new addition was completed in 1957.

Born in Italy 65 years ago Joe served two years in the army. Before leaving his homeland he had been paying court to the attractive Italia Mazzoni and when she came to Copper Cliff in 1933 they were married. "I arrived here on Christmas Day," she recalled.

They are very proud of their two sons, Bruno, an executive secretary, and Dino, an Esso dealer, both in Toronto, and their five grandchildren.

In 1950 Joe and his wife made a trip back to Italy and may go again next year. They have moved to a comfortable home in Hamilton where Mrs. Pen has a sister and their family are nearby. Joe has great plans for a garden next spring when he hopes to raise fruit trees and possibly a few grape vines as well as flowers and vegetables.

Alex Gregor

When Alex Gregor found that his arthritis was making work a pretty tough battle each day he welcomed a disability pension. His continuous service dates from 1933 but he had worked at Inco earlier than that.

He came over from Austria in 1925 and joined his father, who was working at Comstock. Earlier his dad had worked at the old Victoria smelter.

Alex worked at Comstock, then went south and helped with the building of the Welland canal. Next he worked in the refinery at Port Colborne, quit in 1930, then was rehired at Copper Cliff when



Mr. and Mrs. Gregor

the Orford process was moved from Port Colborne. Laid off in 1931 he returned in 1933 and worked in the Orford building until retirement.

For many years Alex was a tapper on the cupola furnaces and during the last ten years on the electric furnaces.

Emma Pilon and Alex were married in 1935. Their family include Helen, who married Nick Ledow of Creighton, Ted, a doctor in Toronto, Sharon, in grade 13, and two grandsons they adore. "We just love to mind them," smiled Mrs. Gregor.

About 25 years ago Alex built a small frame bungalow in Sudbury. Ten years later he remodelled it, adding a couple of nice apartments so that now he has very pleasant living plus a small revenue. Much of the building alterations he did himself.

A friendly and happy couple the Gregors are considering a move to southern Ontario although their many close ties of friendship here make it a difficult decision. They both agree, however, that they'd like a little less winter.

Jim Blackport Top Skip

Jim Blackport, ably assisted by Ken Pollock, Bill MacAlpine and Hilt Fowler, won the Toronto-Dominion Bank trophy in the annual Creighton-Lively bonspiel at the Copper Cliff Curling Club.

Runners-up in this main event were Casey Cull (skip), John Szendrey, Ed Wolfgram and Paul Khas.

Lively Athletic Association donated 24 turkeys as prizes for the big pow-wow, which drew a total of 54 rinks and was voted a great success. Gary Foy chaired the committee in charge, and Gord Bennett and John Woznow were drawmasters.

Second event winners were Gord Bennett (skip), Gary Foy, Bill Cushman and Bob Hughes, and third event honors went to George Stephens (skip), Sandy McIntyre, Ron Pierson and Joe Beauchamp. Prizes for these two events were given by Laurel VanClief.

Allan Riou

Allan had just completed his military service when he decided to leave his native France for Canada in 1923. He arrived in Montreal where he soon found work with the Canadian Pacific Railway.

A year later he came to Port Colborne where for the past 35 years he has worked in the electrolytic department of the Nickel Refinery. He started as a process laborer and then went to the pachuca floor where he was a cementation man and sub-foreman. His knowledge of the operation of the electrolytic department earned him promotion to foreman in 1959, the post he held at his retirement.

In 1954 Allan hit the jackpot when he was awarded \$1,000.00 through the employees' suggestion



Mr. and Mrs. Riou

plan for his suggestion in connection with cobalt treatment.

Allan is now going on disability pension due to a knee condition which has troubled him for some time. He said that perhaps next year he and Mrs. Riou will take a trip back to France.

In 1928 Allan married Henrietta Ballaven. They have two sons and one daughter, Albert, a former Incoite now at school to further his education; Donald, at Fort Erie with the law firm of Edward W. Tyrrell, Q.C., and Helen, Mrs. L. H. Reeves of Ottawa. They have four grandchildren.

At a gathering in the Electrolytic Department, Allan was presented with a purse of money by J. H. Walter on behalf of his fellow workers, along with thanks for a job well done and best wishes for a job well done and best wishes for Mrs. Riou and himself for happiness and health in retirement.

Joseph Toth

Joseph Toth came from Hungary in 1928 and headed straight for Port Colborne where he found



Joseph Toth

work at the Nickel Refinery. For the past 36 years he has been working in the electrolytic department as a stripper and basement laborer. Due to an asthmatic condition, he is now retiring on a disability pension.

His wife, Clare Toth whom he married in 1933, died in 1963. Their son Robert is working at No. 2 research station. Two grandchildren complete the Toth family.

The Company joins Joseph's

friends in wishing him a long and happy retirement.

If you realize you aren't so wise

today as you thought you were

yesterday, you're wiser today.

Executive Officers Address Safety Luncheons at Copper Cliff Club

A series of luncheons at which executive officers of the Company have addressed members of senior supervision on various facets of the Inco safety program have been held at the Copper Cliff Club. Organized by safety superintendent M. E. Young the meetings have further pointed up the high importance placed on safety in the Company's operations. Speaker in this picture is E. G. Staneman, manager of the Iron Ore Plant; on the right are assistant general manager J. A. Pigott, general manager T. M. Goetz, safety superintendent M. E. Young, and reduction works manager R. R. Saddington. Previous luncheons were addressed by Mr. Pigott, Mr. Saddington, and manager of mines J. McCreedy; speaker at the next meeting will be Copper Refinery manager G. A. Dick.



Part of Mr. Staneman's audience is shown in this photograph: Cam Girdwood, master mechanic, Clorabelle Open Pit; Reg Edmunds, machine shop foreman, Frood-Stobie; Arnold Bennett and Leo MacDonald, general foremen, Creighton 3 and 5 shafts; George Pass, master mechanic, Levack; Norman White, master mechanic, Frood-Stobie. Immediately beyond them can be seen Norman Ripley, assistant mechanical superintendent, Copper Refinery; Clare McAfee, general foreman, Frood-Stobie 7 shaft; Orin Pritchard, assistant to chief geologist; Sam Pataran, safety engineer, Creighton; Bob Mitchell, general foreman, Garson; Ray Beach, master mechanic, Garson. Visible in the back row are Louis Core, shift boss, electric furnaces; Gordon Adams, master mechanic, Caniston; Bill Bell, master mechanic, Lawson Quarry; Fred Pentney, master mechanic, Creighton; Dick Pearson, master mechanic, Murray.

Alex Watts

A veteran platemaker at the Copper Refinery, Alex Watts has retired on service pension.

Born and raised at Galt he started work in a shoe factory there when he was 13. "My father was killed and we needed the money," he said.

During the first war Alex worked on munitions and then joined the RAF as a mechanic.

Returning to Galt after the war he played ball for that town and St. Thomas. He was also a fair man with a hockey stick and actually came north to play hockey and ball.

"Cooney Wood was up here," explained Alex, "and he told me this was a good place to work and also for sport." Alex recalled that Vern Tupling and Alex Singhbush were playing ball and hockey then too. His last year in active competition was 1942.

Alex started working in the plate shop when he came to the refinery in 1935 and has stayed right there. "No sense moving

when you have a good place to work," he grinned.

The Watts have two daughters, Marion (Mrs. D. Parks) at the Soo, Joyce (Mrs. K. Lascelle) of



Mr. and Mrs. Watts

Sudbury and a son Robin in Ottawa. They have six grandchildren.

Alex is still a keen sports fan and closely follows all sports on television. "I used to do some running and jumping as well when I was younger," he said, "so I know something about most sports."

Some time later this year Alex and his wife plan on moving down southern Ontario way to live, but for the present they are comfortable in the Sudbury home they have shared for 30 years.

Change Of Name

Effective January 1, 1965, the name of the United Kingdom subsidiary of The International Nickel Company of Canada, Limited, has been changed from The International Nickel Company (Mond) Limited to International Nickel Limited.

The change of name identifies more closely the activities of International Nickel's United Kingdom organization with those of the parent company.

EVERYBODY WINS

A daughter was telling her mother why she never wore her glasses when she went out on dates.

"I look better to men without them," she explained, "and also the men look better to me."

How Iron Became the Fourteenth Element on The Inco Product Team

(INCO MAGAZINE)

The meat-packing industry has long been famous for its ability to slaughter a porker and extract and market just about everything but the squeal.

In contrast, non-ferrous smelters have been characterized by huge mounds of waste slag, composed chiefly of iron and silica in chemical combination, which bear mute testimony to the fact that metallurgists have been less successful in similarly utilizing all the constituents of their ores.

Although these slag piles have an iron content of 35 to 40 per cent, higher than that of many iron ores now being beneficiated and used for steel production, they are of little value as the iron is locked chemically to the silica in such a refractory combination that its recovery would be uneconomic under present conditions.

Today, International Nickel is recovering from its nickel ores some 750,000 gross tons of high grade iron ore a year at its recently completed iron ore recovery plant at Copper Cliff — iron that formerly would wind up in the smelter slag.

Ores Are Complex

Nickel ore deposits of the sulphide type, such as those of International Nickel in the Sudbury District (which have been the major source of the world's nickel supply for the past 70 years), contain small amounts of nickel, copper and cobalt, and much smaller amounts of gold, silver, platinum and the platinum-group metals and the metalloids selenium and tellurium. All are in intimate association with large amounts of

INTERNATIONAL NICKEL'S expanded iron ore recovery plant, three miles west of Copper Cliff. The original plant, in production since 1956, was recently enlarged at a cost of some \$50 million to triple its capacity. The smokestack is the tallest in the British Commonwealth. Standing 637 feet high on a 22-foot base it is almost two-thirds the height of the famed Eiffel Tower in Paris.

sulphur, iron and waste rock.

The principal ore minerals are chalcopyrite, a copper-iron sulphide; pentlandite, a nickel-iron sulphide; and pyrrhotite, a sulphide of iron. The over-all ore contains about 10 pounds of iron for each pound of nickel, while the most abundant sulphide mineral, pyrrhotite, carries over 100 pounds of iron for every pound of nickel.

To recover these valuable metals, ore-dressing methods are used to eliminate worthless rock constituents and also to effect a preliminary separation of the copper-bearing and nickel-bearing minerals. Then the smelter continues the concentration process by burning off the sulphur and eliminating the iron through oxidation, fusion and chemical combination with silica flux to form a slag.

This molten iron silicate slag is immiscible with the liquid copper-

nickel sulphides (matte), and being of lower density, floats on top, whence it is easily removed by skimming. The valuable non-ferrous metals are recovered by the smelting process, but the iron is lost in the discarded slag.

Considerable expense is involved in smelting, since silica flux must be provided and large amounts of fuel are needed to heat the concentrates and flux to fusion temperatures (about 2250 degrees F.) where iron oxides and silica can combine chemically in the molten state. Thus the principal function of the smelters has been the elimination of iron and sulphur.

Long-Sought Process

Since before the turn of the century International Nickel metallurgists had eyed the substantial iron content of the Sudbury nickel ores and made continual attempts to find an economic way to utilize it.

Early in the 1940's metallurgists

at International Nickel reached the conclusion that the best way to deal with the iron occurring in the nickeliferous pyrrhotite, the predominant sulphide mineral, would be to remove it during the ore-dressing stage for completely separate treatment. In bypassing the smelter a major portion of the iron content of the ore thus would be spared from discard on the slag pile, and might be recovered as a valuable, premium-grade iron ore.

This plan offered other interesting possibilities. Since iron sulphide diverted from the smelting operation would not require fuel to melt it nor silica flux to "slag" it, existing smelter facilities could then treat more of a higher-grade nickel concentrate and produce more nickel.

There was, however, one obstacle of long standing. Up to this time no satisfactory method for treating a nickeliferous iron sulphide concentrate had been found except for the familiar but expensive smelting routine.

The difficulty in separate treatment of pyrrhotite stems from the fact that concentrates of this mineral normally contain about 0.75 per cent nickel, most of it present as a solid solution in which nickel has replaced iron in the iron sulphide crystal lattice. This nickel is immune to all attempts to remove it by mechanical means, such as ore-dressing techniques.

If a pyrrhotite concentrate were roasted and reduced to metallic iron, the iron would contain between one and two per cent nickel. Thus, with almost a pound of nickel for every 100 pounds of iron, pyrrhotite has too much nickel to make acceptable iron ore — and too much nickel to be discarded.

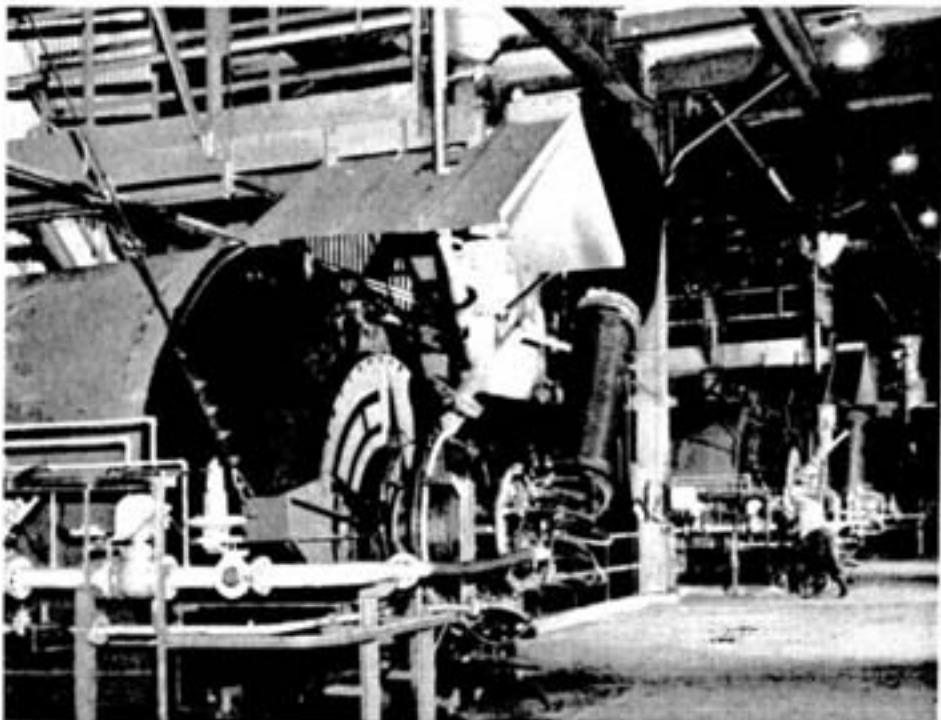
Investigations Intensified

International Nickel's investigations into the possibility of diverting a high grade pyrrhotite concentrate and treating it separately for recovery of iron ore and nickel were intensified after World War II.

Of the major ore constituents, only pyrrhotite is magnetic. It was found that the main separation could be accomplished by the simple expedient of passing finely



Standing 637 feet high on a 22-foot base it is almost two-thirds the height of the famed Eiffel Tower in Paris.



THIS IS THE FEED and firing end of the kilns which perform selective reduction. Here, in the process of separating nickel from iron, nickel is converted to the metallic state, while the bulk of the iron is simultaneously reduced to the magnetite stage.

ground ore or concentrate over a magnetic separator. Regrinding and flotation of the magnetic concentrate, to eliminate residual rock and to remove scattered composite grains containing copper and nickel sulphides, consistently yielded a pyrrhotite concentrate containing less than one per cent nickel.

Several years of laboratory and pilot plant investigation followed, in which alternative methods of extracting the nickel were devised and evaluated. The most economic method was selected, and iron became the fourteenth element to be recovered from International Nickel's Sudbury ores. In addition to copper and nickel, the others are five platinum-group metals — platinum, palladium, rhodium, ruthenium and iridium — gold, silver, cobalt, selenium, tellurium and sulphur.

The process selected, and currently in use, involves roasting of the pyrrhotite concentrate, selective reduction of the nickeliferous calcine, extraction of nickel from the partially reduced calcine with an ammoniacal leach solution, recovery of nickel from the solution, and conversion of the leached solids into premium-grade iron ore pellets.

Immediate Success

In 1956, a \$20 million plant was put into operation by International Nickel at Copper Cliff to use this process for the separate treatment of a third of a million tons of pyrrhotite concentrate per year. Its output of premium-grade pellets met with immediate acceptance by the steel industry. Its success was such that in 1961 a \$50 million extension was undertaken to triple the capacity of the plant. The expansion program is now completed and the plant is in full-scale operation.

The enlarged plant treats pyrrhotite concentrate at the rate of one and one-quarter million tons per year, to produce over 750,000 gross tons of premium-grade iron ore pellets, as well as nickel in the form of high-purity nickel oxide with good solubility in dilute mineral acids.

The Copper Cliff product ranks with the highest quality iron ore pellets produced anywhere in the world. Since they receive intense induration at high temperatures,

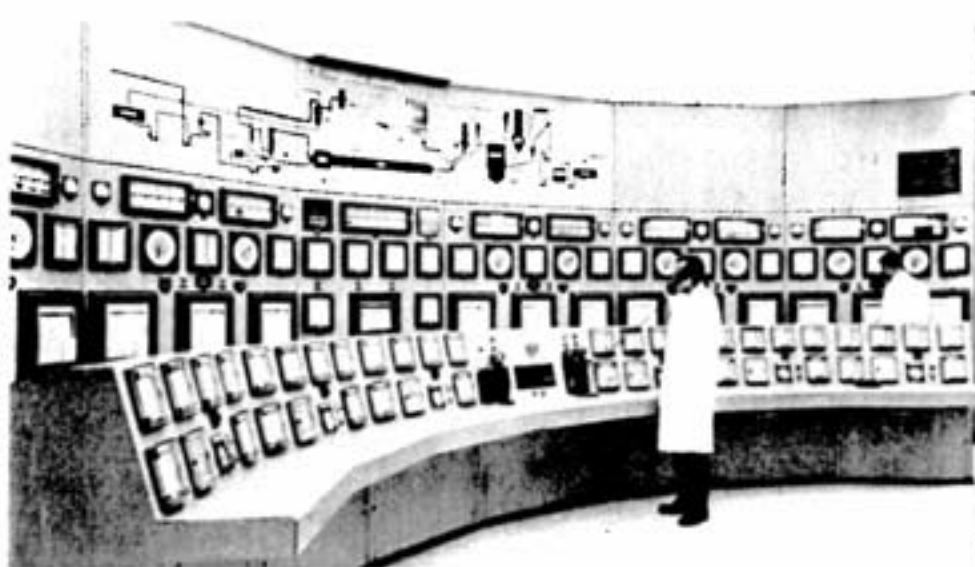
they possess more than adequate strength to readily withstand the rigors of handling, shipping and charging to steel furnaces. They analyze about 68 per cent iron, 1 per cent silica and less than 0.01 per cent sulphur and phosphorus.

Less Glow and More Go

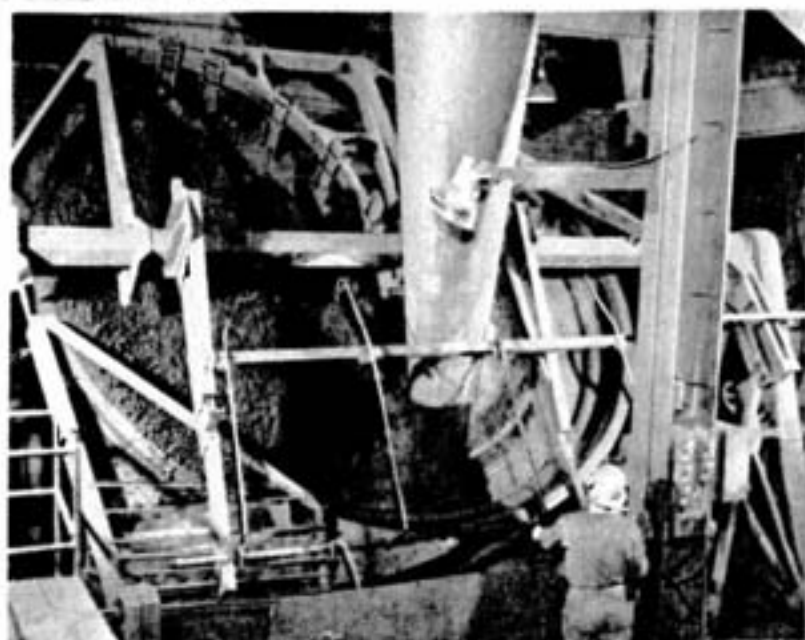
Slag trains still travel from the smelter to the dumps with their pots of fiery, molten slag, because the copper and nickel concentrates still carry some rock and iron that must be removed by slagging. But the pink glow in the night sky over Sudbury, signifying another cascade of flaming lava down the side of the dump, occurs much less frequently now. Instead, in less spectacular but more economical fashion, railway cars loaded with premium-grade iron ore pellets quietly leave for steel-producing plants, certain of a warm reception when they arrive.

Comfort In Space

When the astronaut of the future steps out of his capsule in outer space, his space suit will truly be his home. The suit will be heated, air-conditioned and will even have outlets for the astronaut's electric razor. Power will be supplied by rechargeable nickel-cadmium batteries which are virtually unaffected by any extremes of temperature encountered in outer space.



THE CONTROL ROOM in the plant's roaster-kiln building. The plant's roasters, boilers, reduction kilns and auxiliary equipment are under constant supervision and regulation by operators at this console.



THE LEACHED MAGNETITE, with all traces of nickel-bearing solution removed, is thickened, filtered and fed with the correct moisture addition to balling discs. The 18-foot diameter saucers rotate, rolling and tumbling the moist filter cake into compact "green" pellets about one inch in diameter.



VIEW OF ONE of the plant's two gas-fired traveling grate machines which bake the "green" iron ore pellets hard.



IRON ORE PELLETS, fired at a temperature of 2400 degrees F., come off the traveling grate machine, after being dried, fired and finally cooled.

Here and There on The Christmas Scene



As has become the pleasant custom, on the day before Christmas, work tapered off early in the general offices at Copper Cliff and in several departments the members of the distaff side brought forth coffee, sandwiches and cake to be enjoyed while greetings and good wishes of the Season were exchanged. Shown above is a group in the purchasing department, Jack Colquhoun, Aubrey Mills, Diane Villeseche, Alice Gibson and Mac Forsythe.

On an improvised stage in the little schoolhouse at Whitefish Falls the scene at Bethlehem was beautifully portrayed at the annual Christmas concert given by the pupils and their teachers. The audience joined Mary and Joseph, the angels, wise men and centurions in singing Christmas carols at the manger in which lay the Christ child.



LEFT: Posing with Santa Leo Boyer and two of his admirers at the Coniston Christmas party are Ugo Comacchio and three of the clowns who made fun for the kiddies, Silver Marcon, Gina Gabbo and Phil Lalonde. RIGHT: During their rounds of the Christmas tree parties assistant vice-president and general manager T. M. Goetz and assistant general manager J. A. Pigott are shown enjoying the distribution of gifts at the big Frodo-Stable affair with Mrs. Ingrid Dobson, Mrs. Grace Dickie, Mrs. Margaret St. George and Mrs. Laurette Leroux.



LEFT: Fred Eng, mechanical helper at the Copper Cliff mill, made an international Christmas tree bearing the greeting "Merry Christmas" in 20 languages. RIGHT: Some of the office people who dropped in for Christmas coffee in the real estate department: seated Karen Nutbey, Orest Andrews, Sharon Hall, Helen McParland, Tam Peters, Marie Paquette; standing, Sid Manley, Jean Parri, Clare Young, Alex Crossgrave.



Alvin Nickel, Bob Crawford, Wayne Martin, John Forsey.



At the Garson Christmas tree party the special entertainment included carol singing by this children's choir which was warmly applauded by the big turnout of parents and kiddies.



Mines superintendent G. R. Green (third from left) was among the visitors at the Garson party where he is shown with Vic Stone, Bruce King and Tom Scanlon.

THE PATIENTS AT COPPER CLIFF HOSPITAL were cheered on Christmas morning by a visit from assistant vice-president T. M. Goetz and assistant general manager J. A. Pigott, who made the rounds of the wards to extend Season's greetings and best wishes for early recovery. They were escorted by chief surgeon Dr. Brent Hazlewood, superintendent of nurses Barbara Truskoski, attending physicians and members of the staff.

Red Maltby, casting and crushing boss at the Copper Cliff smelter who was in hospital for treatment of a heart condition, posed with a group of his visitors for this photograph which shows, left to right, Dr. Hazlewood, Mrs. Truskoski, Mr. Goetz, nurse Beverley Duff, nurse Marie Mulligan, Mr. Pigott, certified nursing assistant Winnie Nickert, Red's physician Dr. John Sturtridge and nurse Eileen Tobin.



HERE WERE SOME of those enjoying the Christmas coffee klatch in the accounting department steno pool: seated, Pieter Bergman, June Dagg and Dina Minardi; standing, Gerry Myers, Ron Heale, George Syer, Geoff Lawson, Janet Laplante, Mary Jane Lenihan, Wilma Zahavich, Dan Cowcill.



HOSTESSES AND CALLERS at the safety department's informal reception were, seated, Anne Buttridge, Beatrice Lucid, Mel Young, Gail Assmann, Patricia Crowther; standing, Marlon Seawright, Ray Caverson, Laura Dinitro, Bob Saddlington, Joan Lapointe, Tom Crowther, Florence Hussion.



GEORGE BETANCOURT'S beautiful tenor voice in a solo, "O Holy Night", was a surprise treat at the carol singing in the pay office. Raptly attentive in the above picture are Jean Bell, Pat Charlebois, Colleen Penton, Noreen Clements, Pat Taylor, Doris Wilkie, Mary Ellen Fillator, Sandra Walsh, Linda Witt.



POSING WITH SANTA Jack Latreille and a young friend at one of the Copper Cliff Athletic Association's six huge theatre parties were association president Fred Burchell, assistant to the general manager Gordon Machum, association executive, Hugh Allen and safety superintendent Mel Young.

THE VENERABLE COPPER CLIFF CLUB was jumping when its annual family Christmas party got into full swing. Up until 10 o'clock in the evening the little fry held sway, joined by their parents in bowling, ping pong, billiards, square dancing and lunch. Then the Hit Parade's top 20 was stocked on the record player and the teen-agers took over, with cribbage, chess and bridge on the side. A highlight of the very successful party, which drew a capacity turnout, was a display of ornamental swimming under the direction of Lynne Wadge and Sandra Dunn.





Faces
of
Christmas
at Inco







Mr. and Mrs. Vic Legault with their retirement presentations and the delegation from the plant that brought them, Leo Proulx, Jacques Pelland, Russell Lushman, Laurent Dupuis, Wilfred Rancourt.

Vic Legault

When Vic Legault went on pension some of the boys from Pete Latta's flue dust gang, where Vic had worked for several years, came round to his home, wrestled a very comfortable easy chair into the living room, sat Vic in it and then presented Mrs. Legault with a bouquet of roses. Vic and his wife were pleasantly surprised, to say the least.

A real oldtimer at the Copper Cliff smelter, where he started in 1925, Vic has worked at many jobs including the blast furnaces, the reverbs where he was a tapper for 20 years, on the cranes and for the last few years on the cottrells.

Stanley Smith

Stanley Smith was born in Decew Falls but when he was 10 months old his family took up residence in Humberstone Village, now part of Port Colborne, where he attended public and high school.

He was employed by Canada Cement Company, John Deere Welland Works and Pierce Arrow Automobile Works in Buffalo, N.Y.



Mr. and Mrs. Smith

In November 1928 Stanley entered the employ of Inco and worked in no. 1 building as a fitter until the operation was curtailed in 1931. For the next 10 years, he worked in the electrolytic department as a process laborer and bridgeman. In 1941 he transferred to the mechanical

Vic was raised around Chelmsford where his family settled in 1910. He worked at the Murray mine in 1923 and had farmed and worked in the bush before starting with Inco.

He almost remained a bachelor but luckily about eight years ago, after exposure to the charms of Evelyn Ranger, he married her. They are very happy together and have already bought their retirement home on the outskirts of Cornwall. They are both originally from that part of the country and have many friends there.

In good health Vic is as enthusiastic and keen about this new life of retirement as he was about his work, and he was long known to be a man who liked his work.

department and for the past 19 years his job has been plant fitter, at which he was always obliging and co-operative. Now after 36 years with Inco Stanley is retiring on full service pension.

In 1923 he married Doris Holland and has one son, Russell, at John Deere Welland Works, and one grandchild.

Stanley and Mrs. Smith have just recently returned from a trip to the West. "We have our own tent and now with plenty of time, we will be doing a lot of camping," he said.

At a gathering in the mechanical department, he was presented with a purse of money by C. MacPhail on behalf of his fellow workers, along with thanks for his services to the Company and the wish that he and Mrs. Smith may long enjoy retirement.

Rum Run In Stainless

Rum is shipped from Hawaii, for bottling in California, in huge nickel stainless steel containers, each holding 4,800 gallons and weighing 50,000 pounds when full.

Young people these days find it difficult to believe that years ago most people wouldn't buy or do anything they couldn't afford.

Ovila Sauve

A man who likes to work and who, in his 70th year, is as trim and fit as most men 10 years younger. Ovila Sauve is now enjoying an Inco pension. That doesn't mean he's retired though, in fact he is just itching to get another job.

"My first job was in a cotton factory in Montreal when I was 13," he grinned, "and I've been working ever since."

He first tried the nickel industry over 50 years ago. "We moved to a farm near Garson in 1908," he recalled, "and cut cordwood for the mine." During the 10 years his family lived there Ovila worked in the rockhouse and spent three years underground.

After war service in the army he returned to Garson, then moved on to Espanola and worked in the paper mill for seven years. He tried Frood in 1928, running a motor for drifting operations. Later he held a variety of jobs until hooking on permanently at Copper Cliff.

Ovila married Pauline Chart-



Mr. and Mrs. Sauve

rand in 1918 and they have three daughters, Stella (Mrs. L. Lafrance) of Sudbury, Lucy, wife of Andre Foucault of Murray, Beatrice who married Camille Gravelle of Frood, and one son Nelson who lives at Hagar and works at Garson. They also have seven grandchildren.

The Sauves have a comfortable home at Azilda in what was originally their summer camp. Here Ovila keeps everything in top shape and enjoys doing so. He and his wife are a happy couple.

who appreciate the many good things in life.

Sam Ubrico

Sam Ubrico recalls working at Murray back when you took the train to work. "There were few cars and poor roads then," he said. "We used to board the train in Sudbury where the Loblaw building is now and believe me, we had lots of snow around in winter then."

Sam has taken an early service pension from Creighton where he



Mr. and Mrs. Ubrico

worked since 1935, starting in the rockhouse at 3 shaft and moving over to 5 shaft the following year. He returned to 3 shaft as an underground crusherman, then wound up his Inco career with three years in the plate shop and six years in the machine shop.

Before joining Inco Sam had a variety of jobs. He came directly to Sudbury from Italy but in 1919 jobs were scarce. He did manage a job at Nobel however and later worked at Murray. From there he went to the paper mill at Espanola for three years and then to the States in 1925.

Returning to Sudbury he drove taxi a short while before getting on at Creighton.

Divinor Ubrico and Sam were married in 1925. Their two sons Ernie and Tom work at the Copper Refinery and daughter Lena is Mrs. L. Grenon of Sudbury. They have one granddaughter.

The Ubricos have lately moved to Sudbury after living in Creighton for nearly a quarter of a century.

HE WASN'T FOOLING

"Refuse me and I'll die!" he said on bended knee. She refused him. Sixty years later, he died.

A Winner in Thompson's Light-Up Contest



Mr. and Mrs. John Nagy, Elk Bay, won first prize for scenic lighting effect in the Jaycees annual Christmas light-up contest at Thompson. The attractive display at their home is shown above. John is a stope leader at the Thompson Mine. Mr. and Mrs. H. Duncan, Westwood Drive, and Mr. and Mrs. Roy Wilcox, Riverside Drive, were other prize-winners among the many entries that added so much to the Christmas season at Thompson.

Ashick and Currie Shifts Build Great Safety Records at Creighton Mine



Sometimes lost in the triumph of a spectacular plant safety achievement, which is usually attained over a relatively short period of time, are the wonderful records piled up over a long, long haul by many individual crews of men. Creighton had occasion recently to salute two such performances, one by Eric Ashick's shift on 4400 North at 5 shaft and the other by Jim Currie's surface

gang. Shown above is the Ashick crew, with shift boss Eric and underground superintendent Grant Bertram in the centre of the front row. The last lost-time accident charged against the Ashick shift occurred on December 23, 1953. Since that time they have maintained a perfect record, and on January 1 had completed a total of 107,154 safe shifts.

All Major Fields Of Nickel Uses Increased in '64

Led by the stainless steels, which were expected to use 50 million pounds more nickel than they did in 1963, all major fields of nickel consumption showed large increases in 1964.

In his year-end review of the nickel industry Inco chairman Henry S. Wingate estimated that the free world's use of nickel in 1964 would exceed 600 million pounds for the first time. This was 107 million pounds more than the previous high attained in 1963.

Mr. Wingate placed the free world's total nickel production capability at 700 million pounds and predicted that within the next few years this will be increased to 800 million pounds.

80% From Canada

Canadian producers account for almost 80% of the free world's nickel-producing capacity. Mr. Wingate estimated the capabilities as follows:

International Nickel, 440 to 450 million pounds; Falconbridge, 75 to 80 million pounds; Sherritt Gordon, 30 million pounds;

Societe Le Nickel, New Caledonia, 60 million pounds; Japan (using imported ores) 60 million pounds; Hanna, United States, 25 to 30 million pounds; Brazil, Finland, Morocco, Southern Rhodesia, South Africa, 14 million pounds.

United States continued as the world's largest nickel user, an estimated increase of 45 million pounds in 1964 bringing its expected total consumption to 300 million pounds. Also figured for a big increase was the European Common Market, world's second-



Equally as impressive as the performance of the Ashick shift is the splendid safety record rolled up by Jim Currie's surface crew working at both 3 and 5 shafts, photographed above with shift boss Jim and mine superintendent Earl Mumford in the centre of the front row. These men on January 1 had completed a total of 107,953 shifts without a lost-time accident, their record reaching back nine years to December 19, 1955. It is safe workmanship such as this, year in and year out, that builds the great safety achievements for which Inco is internationally famous in the mining world.

largest nickel-consuming area, which probably used 120 million pounds in 1964.

All other major nickel users were expected to show hefty increases in 1964. Mr. Wingate's review stated: Japan, a 30% increase to 65 million pounds; United Kingdom, a 27% increase to 85 million pounds; Sweden, a 25% increase to 25 million pounds; Canada, a 15% increase to 15 million pounds; other countries, an 11% increase to 30 million pounds.

The market price for refined nickel in the United States, including the U.S. import duty of 1 1/4 cents, remained at 79 cents (U.S.) per pound. Based on prevailing exchange rates the corresponding

price in Canada was 84 cents (Canadian) per pound. In the United Kingdom the market price continued at £642 per long ton. These prices have been in effect since May, 1962.

Important New Product

"An important alternative form of primary nickel for the various technological practices in modern steel making was announced during the year by International Nickel," Mr. Wingate reported. "This new product is nickel oxide sinter 90, a modified form of the Company's present nickel oxide sinter 75 which will continue to be marketed. Nickel oxide sinter 90 is an intermediate product of extractive metallurgy containing

about 90 per cent nickel and with lower impurities and lower oxygen content. Already produced in large pilot plant operations and proven in tests at the plants of steel producers, nickel oxide sinter 90 is expected to be used mostly in the production of wrought alloy steels and stainless steels. A plant at Copper Cliff to produce the new intermediate product in tonnage quantities will be completed by the end of 1965."

In 1964, too, the development of a new basic grade of maraging steel, containing 12 per cent nickel, was announced by Inco. The new steel has considerable potential for hydropower, high pressure equip-

(Continued on Page 15)

INCO FAMILY ALBUM



Here we have the Art Brasseau family of Chelmsford. Young Robert is still at high school, Denis works on the reverbs at Copper Cliff and Sylvianne is the wife of Robert Sauve of Levack. Art has recently remodelled his home inside and out, doing most of the work himself. He is a smelter man at Copper Cliff.



This happy Filion family picture was taken shortly before Christmas when everyone was home. Art and his wife Germaine have 5-year-old Eloise between them; the tall adult sons are Robert (Frood), Gerald (Creighton), Bernard (Levack). Young Arthur is 11, Lionel 13, and daughter Lorraine was 16 on January 10. Art is a shift boss at Frood.



Red Butler worked in the laboratory at the Copper Refinery for many years and recently joined Inco's first aid department as a relief man. With him here are his wife Marie, Alan who will be 6 in February, Brenda, 4, and Craig, 2. Red's hobbies are his home, family, and collecting coins.



Both George McGrath and his wife Kay are from Nova Scotia and while they enjoy visiting there, much prefer to live in Lively. Their family pictured here are Eric, 17, Kathy, 9, and Kevin, 7. George is a diamond drill boss at Creighton 5 shaft.

Don and Jean Horne, with sons Mark, 4, and Michael, 6 months, are our Port Colborne family of the month. Jean is a former member of the Nickel Refinery office staff; Don is a cost accountant who made a name for himself in starring roles with Port Colborne Operatic Society.



Our first Coniston family for 1965 is Philippe Lalonde, his wife Joyce and their three youngsters. Michel is 8, Jean-Pierre, 6, and Andre, 16 months young. The Lalondes are one of the original families in the co-operative subdivision they helped build at Wahnapioté in 1958. Philippe has worked at Coniston 13 years.



A sandfill foreman underground at Thompson, Larry Wiesner is shown with his wife Elizabeth and children Sherri, 2½, and Kimberley, 1½. They moved into a new home on Teal Avenue last year. Bowling, hunting and fishing are Larry's hobbies.



The Sorento Hotel's Christmas decorations were a bonus feature of the Foot & Hangingwall Society's ladies' night. Grouped around the tree here are, from the right, Anita and Bob Chambers, Lloyd and Jean MacTaggart, and Elinor and Bob Williams.

Strange Creatures in the Air at Bedrock Ball

Dragon flies with a three-foot wingspread and flying reptiles such as the pteranodon, pterodactyl and ramphorhynchus, all familiar enough back in the Cretaceous Age, sailed through the air with the greatest of ease at the annual ladies' night of the Foot & Hangingwall Society.

Theme of the Bedrock Ball, as the geologists called their big party, was the era of 1 Million B.C. In addition to the cleverly

constructed life-size models of the mammoth dragon flies and their strange air pals, the imaginative decorations included humorous cartoons from the pen of Orest Andrews purporting to illustrate geological activities of that prehistoric time.

More than 100 couples attended the brilliantly successful affair which was held in the Sorento Motor Hotel ballroom.

Albert Landry

Albert Landry has retired on disability pension. After a couple of years in and out of hospital it was agreed that this was the best thing for him and while hating to say goodbye to the gang at Clarabelle, where he had been the last three years, Albert realized he couldn't continue working.

A lifetime resident of Azilda, he enjoys a very attractive and comfortable home on the east shore of Whitewater Lake. "This was part of our family's farm at one time," he said. "Back in 1946 my father turned it into three subdivisions."

Albert's father was section fore-

man at Azilda for over 40 years. They moved there in 1913 when Albert was a year old. He worked for the railroad from the time he was 15 until starting at Levack in 1937, the year that mine reopened.

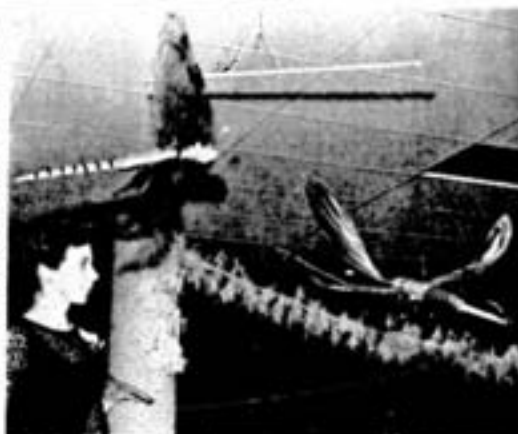
In 1941 he came to Frood, went to the Open Pit in 1942 and joined the RCAF in 1943. He returned to the Pit and worked as a churn driller until his transfer to Murray in 1950. There he worked as skip-tender and on tramming crews. In 1961 it was back to the work he liked, churn drilling at Clarabelle.

Recognized as a particularly capable driller Albert was called from underground on several occasions to perform some special



Diane Parisotto and Pauline Davis enjoyed the Orest Andrews cartoon depicting geological administration in 1 Million B.C. The chief geologist, reclining in his easy chair, is throwing spears at a map to decide where he'll send his exploration geologists next.

They're only models but Lily Kurkimaki is keeping a wary eye on the mammoth dragon flies (meganeuri) which with various types of flying reptiles common in the Cretaceous Age were part of the clever decorative effects at the Bedrock Ball. Stenographer in the geological department at Copper Cliff, Lily is its only lady member.



Four of the more than 100 couples who thoroughly enjoyed the big geological shindig are shown here: seated, Jean Bruser, Carline Throll, Edith Savage, Alice Gibson; the men, Dick Bruser, Frank Gibson, Bud Savage and chief geologist Glen Throll.

drilling job. One in particular he likes to recall was in 1959 at Levack where an 850-foot hole was churn-drilled from surface to an underground stope for filling purposes.

Albert married Elise Charron in 1934. Her father Fred is also an

come spring, that he may get some light job. He was a councillor of Raeside township for five years.

Schuss On Stainless

Nickel stainless steel skis which are extra strong and light and will not rust or tarnish are expected to be on the market soon. More than 100 pair of prototype nickel stainless steel skis are being tested this winter on ski slopes throughout the United States.

CAN'T KEEP UP

Trying to sell a housewife a home freezer, the salesman said: "You can save enough on your food bills to pay for it."

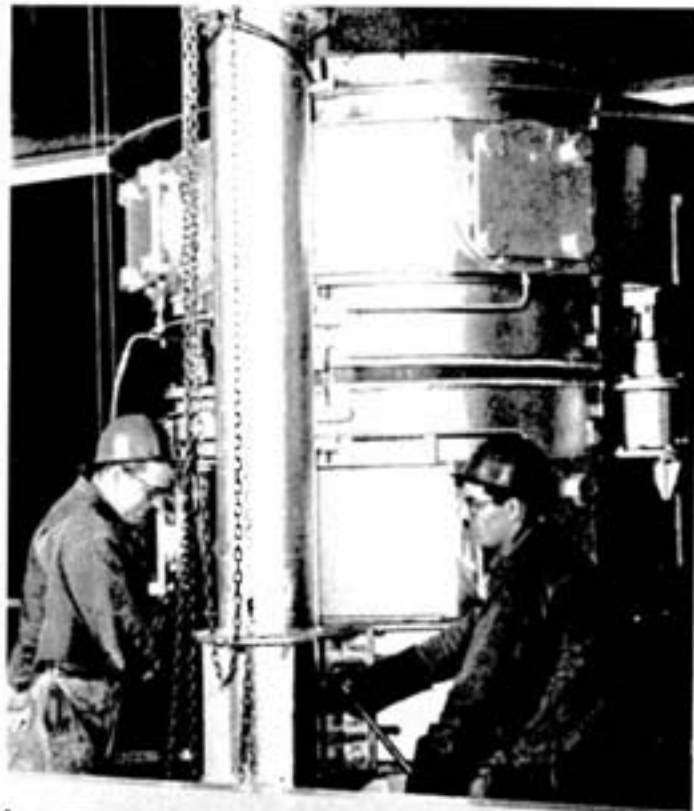
"Yes, I know," the woman agreed. "But we are buying our car on the bus fare we save. Then we are paying for our washing machine on the laundry bills we save, and we're paying for our house on the rent we save. We just can't afford to save any more right now."



Mr. and Mrs. Landry

Inco pensioner. Albert's two sons are both Inco men. Richard at Levack and Leo at Copper Cliff. Five grandchildren are always welcome at this home.

Taking life easy now and feeling the better for it Albert hopes,



A REGULAR job instruction session, part of the safety program, is in progress here, with refinery mechanical foreman Dan Fraser demonstrating the use of an oxygen-acetylene burning torch. Watching the demonstration at the left are assistant mechanical superintendent Bill Clement and mechanical superintendent John MacDougall, and in the "class" are maintenance mechanics Ted Wasylenko, Leo Langergrabber, Ted Linick, Vic Pasternak, Roland Reid and maintenance mechanic leader Jacques Parent.

With The Mechanics at Thompson

At the fully integrated nickel plant at Thompson all mechanical work is performed by one department, unlike the Inco operations in the Sudbury district where there are separate mechanical departments for the mines, reduction plants, and copper refinery.

Besides all plant maintenance Thompson's mechanical depart-

ment is responsible for the operation of underground crushers, mine hoists, and compressor and heating plants.

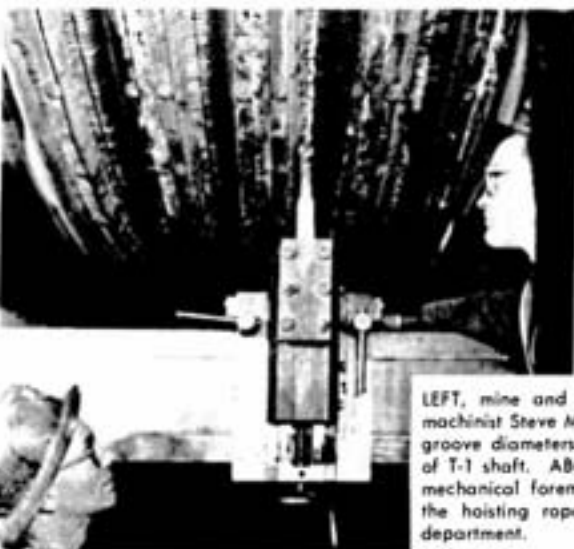
In this and the next issue The Triangle visits some of the Thompson mechanical department men on the job here and there in the plant as they carry out their vitally important duties.

Maintenance mechanics Gib Wall and George Galloway installing a hydraulic cylinder on one of the big electrode slipping devices above the electric furnaces.

Garage mechanic Don Baines is busy on a repair job to the transmission of the plant roader grader.



1. Pipefitter Al Mattel makes repairs to a refrigerator compressor. 2. In this on-the-job shot maintenance mechanic Bob Orr and smelter mechanical foreman Derk Perdok discuss a repair to one of the automatic tuyere punching machines. 3. In the refinery pump room maintenance mechanic Dieter Wehner is shown making a valve change on a vacuum pump.



LEFT, mine and concentrator mechanical foreman Bill Chaddock and machinist Steve Modric are machining the rubber rope treads to equalize groove diameters on the friction cage hoist pulley up in the headframe of T-1 shaft. ABOVE, maintenance mechanic Frank McLean and smelter mechanical foreman Lorne Langstaff carry out a regular inspection of the hoisting ropes on the 20T Hepburn crane in the anode casting department.

Honored After 41 Years' Service at Port Colborne



Assistant vice-president L. S. Renzoni, Toronto, was among the speakers who lauded the accomplishments of Port Colborne engineering superintendent Allin Harvie at a largely attended retirement dinner in the Rathfon Inn. He is shown above as he recalled an amusing occasion. Seated between Mrs. Harvie and her husband is Nickel Refinery manager Warren Koth.



A specially struck plaque of pure electro nickel following the design of the 1951 Canadian five-cent piece but also bearing Mr. Harvie's name and record of Inco service was presented to him by James H. Walter. He also received a camera, luggage and a pen and pencil set were presented to him by his friends and admirers at the office.

Among the large gathering honoring Mr. and Mrs. Harvie were Coralie and Ed Mitchell and Audrey and Steve Pinkos, newer members of the Inco community at Port Colborne.



In this head-table picture are assistant to the general manager Gordon Machum, Mrs. W. J. Freeman, assistant to the chief engineer (Copper Cliff) Robert Beattie, Mrs. John Quance, assistant to the manager Gene Winter.

Port Colborne's new chief engineer, Alastair Finlayson and his wife Winnifred, congratulate Mr. Harvie on his retirement. At the right is inveterate camera fan Vic Lynden, who "covers" all the retirement parties like a pro for his collection of color slides.



Allin Harvie

As brimming with youthful enthusiasm as the day he joined the Company 41 years ago, Allin Harvie has stepped into full service retirement at Port Colborne, where for the past 16 years he has been engineering superintendent of the Nickel Refinery.

Born in Peterborough on January 6, 1900, he came with his family at the age of nine to Port Colborne, where his father was general foreman in the government elevator.

He attended Welland High School. At Queen's University, where he graduated in mechanical engineering in 1923, he took up wrestling and became intercollegiate flyweight champion. He was employed at Inco during the summer of 1922.

Immediately following graduation he joined the Inco engineering department as a draftsman. He was promoted to assistant works engineer in 1936, works engineer in 1942, and mechanical superintendent in 1945. He became engineering superintendent in 1948.

Mr. Harvie looks back on a broad engineering experience which encompassed large-scale plant expansion as well as many major process changes and improvements. He was esteemed by management and men alike for his professional competence and his warm, friendly personality.

In 1926 he married Hazel Cavell. They have one daughter Elizabeth (Mrs. H. R. Davies), residing in Lindsay, and three grandchildren. They will continue to make their home in Port Colborne but plan to travel a good deal.

For the occasion of a dinner at the Rathfon Inn honoring them

on retirement Mr. and Mrs. Harvie were joined by a large group of their friends and well-wishers including several from Toronto and Copper Cliff.

Among the presentations made to Mr. Harvie was one that brought a big smile to his face, a steak and kidney pie.

Nickel Uses Increased

(Continued from Page 11)

ment and aerospace applications, and steel producers are prepared to offer it in a variety of product forms. Many new products in the family of maraging steels are expected to follow.

New opportunities for nickel in one of the oldest fields of nickel applications — coinage — opened up during the year. For generations, nickel has been widely used in coins, both in its pure state and as an alloy. Because of the reduced availability of silver, as well as its increased price, coinage experts foresaw the gradual replacement of silver as a coinage metal. Present available figures indicate that the use of nickel in coinage throughout the free world in 1964 will be almost double that employed for this purpose in 1963.

Healthy Outlook For 1965

"Indications are that the coming year will see a consolidation of the gains made in nickel consumption and demand should continue strong," Mr. Wingate said in concluding his statement.

"For the years ahead, International Nickel's programs covering production, exploration for new nickel deposits, research, market expansion, and its other activities, as well as those of other Canadian producers, reflect our faith in continued and substantial increases in nickel consumption."

Frood-Stobie Has Hundreds of Safety Rhymsters

Winner in Frood-Stobie's annual Yuletide Safety Slogan Contest was Herb Kuz, pictured here receiving his \$25 prize from Frood-Stobie Athletic Association secretary-manager Eldred Dickie. Featured on the display panel in the background is Herb's winning slogan. Second prize winner (\$15) was Stobie's Jesse Bosen who wrote: "Safety at work and safety at play, Makes your Yuletide happy and gay." Frood's P. Murchie won the third prize of \$10 with: "Christmas is a time of cheer, Remember to keep safety near." Ten consolation prizes of \$5 each were also awarded.



Indicating the popularity of this unique safety campaign are the hundreds of slogans entered each year by men in all occupations at the mine.

Among the many interesting entries this year were: "Be safety wise, Protect your eyes." "Take a second look, You haven't got a second life." "Safety and health, Are better than wealth." "A safety check may save your neck." And one miner took the direct approach with, "A safety hat protects your head. If you treat it wrong you may be dead."

16,000 Children Welcomed Santa At Inco Parties

"Not a creature was stirring, not even a mouse," may have been true enough the Night Before Christmas, but it certainly didn't describe the state of affairs the week-end before Christmas, at least as far as Inco kiddies were concerned.

On that busy week-end "stirring" was hardly the word to describe the activities of almost 16,000 kiddies, accompanied by hordes of happy parents, who attended the many Christmas tree parties the mine and plant athletic associations provided.

A sampling of entertainment, a gift, candy, fruit and a visit with one of Santa's specially appointed deputies primed all concerned for the Yuletide holidays.

General manager T. M. Gaetz, assistant general manager J. Pigott and other senior officials of the Company made the rounds of the Christmas gatherings, enjoying the excitement of the children and exchanging greetings with many of the parents.

COPPER CLIFF

On the Saturday before Christmas some 4,000 young fry, accompanied by older brothers, sisters and parents, enjoyed a cartoon movie show, candy, apples and a visit from one of Santa's busiest stand-ins. This was the Copper Cliff Athletic Association's mammoth party, and embraced, in addition to smelter and mill employees' children, the Iron Ore Recovery Plant, Police and Creighton employees living in Sudbury. Bus transportation was provided for those living far away. The four Sudbury theatres, the Italian Club in Copper Cliff and the theatre at Chelmsford were all in action that morning. Inco pensioner Pat Bradshaw was on hand to look after the details at Chelmsford. Chief organizer for this big day was again Gord McLean who had able assistance from athletic association president Fred Burchell, Hugh Allen, Roy Maud and dozens of volunteers. Lorne Garber whisked Santa (Jack Latreille) from place to place, ensuring his appearance at each theatre.

CONISTON

Coniston produced their customary smoothly organized party at the Club Allegri with a varied program headlined by Jerry Gauvreau's parade of talented young performers. Ugo Comacchio outdid himself in leading the sing song that preceded Santa's arrival. Leo Boyer was appointed Santa's representative for the day and accompanying him were four fun-making clowns who in street clothes answer to the names of Silver Marcon, Gino Gobbo, Phil Lalonde and Romeo Boulet. Reg MacNeil headed up a very active group of workers which included Ray Bouchard, Don Slimmons, plant superintendent Roy Smith, and a number of regulars who help out each year. About 475 youngsters under 10 years of age enjoyed the fun.

COPPER REFINERY

The Copper Refinery party played host to about 800 young



Out Macorille

Recreation Hall at Port Colborne Packed with Friends and Admirers of S. Claus

This was part of the mob of 1,400 joyously greeting Santa at the Inco Recreation Hall Christmas party at Port Colborne. The jolly old gent can just be seen in the upper centre of the picture, practically swamped by his adoring fans. The children and their parents were welcomed by Charles Ott, Recreation Hall chairman, and enjoyed a sing-song of Christmas carols and songs led by Bob Duke with Reg Steeves at the piano, followed by a Christmas film and a cartoon. Each child received a package of candy from Santa (Wesley Pierce) and his helpers, Jim Walter, Norm Hillier, Ross Butler, Gord Lindsay, Steve Pinkos, Jim Kocsis, Elmer Somers, Paul Rodzikoski, Joe Lanneval, Frank Kubena and Bob Flemming.

fry who were called individually by name to meet Santa and receive a gift. Toys, candy and crackerjack went to the youngsters and adults were treated to coffee and cake. An excellent short movie cartoon was part of the evening's entertainment. Buddy Eies, Herb Gatoni, Cec Mathews, Howard Caldwell, Glen Fahner, Bill McBane and Bob Rogers were prominent among those who helped make the evening a success. Popular pensioner George Furchner helped Santa dispense candy and conviviality.

LIVELY

At the Lively party Santa toured the town on a fire truck before landing at the high school where about 1,000 bright-eyed kiddies came to visit him. There a corps of helpers gave out candy, fruit and toys to a quietly happy crowd while Santa, in his ho-ho-hearty way listened to requests. Paul Beiner acted as Santa's delegate and his many helpers included Harold Haas, Johnny Spec, Lee Davis, Gary Poy, Harry Haddow, Charlie Trigg and Maurice Coulter.

MURRAY

This Christmas the Murray mine kiddies were called up by name, received a gaily wrapped gift and a bag of candy, then had a word with a jovial, bilingual Santa in the person of Maurice Lavoie. A further treat of hot dogs and pop was provided along with a movie cartoon while Mom and Dad were served coffee and cake. Tony Basso was in charge of the operation and in his gang were Bill Lang, Clarence Weist, Cec Jacklin, Carl Clusbe, Walter Sokoloski, Bill

Stevenson, Bill Fournier and many others.

GARSON

At Garson this year a few movie cartoon shorts were added to the program and were well received. Mrs. Maenpaa's young carol singers were also very popular. An estimated 1,500 kiddies 1 to 10 received a toy, candy and a chance to have a word with another of Santa's loyal appointees, in this case John MacKinnon. Mine superintendent B. T. King was chairman of the party and prominent among the organizers and workers were Tom Scanlon, Vic Stone, Ollie Matson, Orville Cull, along with assistant superintendent Harvey Bangle and members of supervision.

CREIGHTON

Creighton again required two sittings to accommodate the more than 1,000 kiddies who enjoyed a fine cartoon show at the Employees Club on the Sunday before Christmas. Popular Ed Cayen gave Santa a brief respite as he donned a red suit and whiskers and greeted each youngster after the show. A mound of fruit and candy quickly disappeared as his helpers made certain no child was overlooked. Munro Smith along with Jim Martel, Jack Deacon, members of the Athletic Association executive, their wives and many others were again on tap to make this a happy day for all.

LEVACK

Up at Levack the athletic association entertained about 1,900 children at their Christmas party which was held in the Employees Club. In the early afternoon the very young ones were catered to

and in early evening the 8, 9 and 10-year olds were the guests. Toys and candy were distributed and a movie was shown. A fine decorated tree inside the club and a huge outdoor tree were attractive features of their festive season. Gordon French again was the leader of a fine group of workers that included Lloyd Dean, Harvey Nadeau, Don McLean, Bud Rodd, Ron Glassford, Joe Charbonneau, Alex McIntosh along with many others. Local Boy Scouts also lent a hand and Santa was played by Ron Matte.

FROOD-STOBIE

The great Frood-Stobie Christmas party saw more than 4,200 kiddies enjoy a brief Sunday afternoon at the Inco Employees Club where Santa, portrayed by Fred Gilbert, was as popular as the Beatles at a teenage dance. On stage Eldred Dickie had his crew of experienced assistants passing out a fine assortment of toys while others kept the flow of traffic moving and facilitated proceedings in other ways. A movie cartoon was shown and parents enjoyed coffee and cake. Prominent among the host of workers were Eldred's wife Grace and son Bob, the Stan Dobsons, Mr. and Mrs. Vic Leroux and Mr. and Mrs. Joe St. George, Andy Rayne, Bob Christie, Bob Brown, Wm Johnston, Charlie Cranston, Garnet Milks.

Coloring Crockery

Nickel oxide, in conjunction with iron, chromium and cobalt, is used to produce black, olive green, and brown colors in quality earthenware.