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Good to the Last (snow) Drop
(Story on Page 13)



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News About The Company

• No. 1 shaft at the Copper Cliff North mine has been completed to its planned depth of 4,134 feet and development of the mine for future production is proceeding.

• A 60-foot diameter concrete caisson, sunk 65 feet through the overburden to bedrock, will form the foundation for the headframe of the new No. 3 shaft at Thompson.

• In the United Kingdom a new production unit for the refining of platinum-group metals has been installed at the Acton Refinery.

• Capital expenditures are expected to exceed \$50,000,000 in 1964.

• At year-end there were 2,936 former employees and beneficiaries receiving pensions under the Company's Retirement System and other pension plans.

• The Company is building new research facilities near Toronto and near New York, and is enlarging its research laboratory at Birmingham.

• It is probable that in 1964 the consumption of nickel throughout the free world will rise to a new high.

These and many other news items about the Company of special interest to employees are contained in Inco's annual report for 1963, issued recently over the signatures of Henry S. Wingate, chairman of the board, and J. Roy Gordon, president.

Here are some excerpts from the report:

Mines

Total ore production from our Ontario and Manitoba mines during 1963 amounted to 13,566,000 short tons. This compares with 13,794,000 short tons in 1962.

Our mines and plants in Ontario operated during 1963 at the lower level adopted in October 1962. A lowering of electrolytic nickel production in October 1963, consistent with decreased demand for this form of nickel, resulted in a work force reduction at our Port Colborne refinery. However, due to increased demand for nickel in other forms equally suitable for direct use in industry, the level of overall production remained unchanged.

In February 1964 the level of operations at our mines and plants in Ontario was raised. This action resulted in an increase of 1,850 men in the work force at



Expansion Completed

Deliveries of the Company's high-grade iron ore reached a new peak of 458,000 long tons in 1963, reflecting the completion of the \$50,000,000 extension to the Iron Ore Plant at Copper Cliff, shown above. Four new roaster-kill units were installed and the expanded leaching, recovery, and pelletizing facilities were completed during the year. Containing 68 per cent iron, Inco's high-grade iron ore is in continuing strong demand by the steel industries of Canada and the United States.

our mines and plants in the Sudbury District and at our Port Colborne refinery; and it will bring about an increase in our supplies of copper and platinum-group metals as well as of nickel.

At the Clarabelle open pit mine the acquisition of two rotary drills to replace churn drills has resulted in an appreciable reduction in drilling costs. At the Copper Cliff North mine, the sinking of the No. 1 shaft was completed to its planned depth of 4,134 feet, and development of this mine for future production is proceeding. Development was continued at the Creighton, Garson and Murray mines to provide access to lower horizons preparatory to deep level exploration.

The wide use of cemented sand fill throughout our underground mines resulted in substantial economies in timber requirements, decreased dilution of ore, and greater flexibility of mining methods. Coupled with special mining techniques, it has permitted mining by the cut-and-fill method to much greater depths than heretofore.

At our Thompson mine, development work was continued to prepare additional ore zones for future production. Surface preparations for the new No. 3 shaft included the sinking of a 60-foot diameter concrete caisson an average depth of 65 feet through the overburden. After being secured to the bedrock, the caisson will form the foundation for the shaft headframe, and regular shaft-sinking operations will proceed to the 2,400-foot level.

At year-end, underground development in our operating mines in Ontario and Manitoba had reached a cumulative total of 2,827,000 feet, or about 535 miles.

Ore Reserves

The proven ore reserves of the Company's Sudbury District and Manitoba mines stood at 301,620,000 short tons at December 31, 1963, with a nickel-copper content of 9,693,500 short tons. At the end of 1962, the proven ore reserves

stood at 299,416,000 short tons, with a nickel-copper content of 9,006,300 short tons.

Plant and Process Improvements

The extension to the iron ore recovery plant at Copper Cliff was completed during the year. With increased amounts of pyrrhotite by-passing the Copper Cliff smelter for direct conversion to iron ore, the Company achieved the significant economy of being able to reduce nickel reverberatory operations from five to four furnaces, with no decrease in overall nickel production.



Chairman Wingate President Gordon

At the Creighton mill, experimental work on improved nickel recovery continued throughout 1963. Work was started at the Levack mill on pyrrhotite concentration facilities to provide additional feed for the iron ore recovery plant. At the Copper Cliff mill, the improvements to the flotation section, and the provisions for increased pyrrhotite recovery, were completed.

At all of our nickel refineries, as well as at our copper refinery, investigations were carried forward leading to increased process efficiency and product improvement.

The Company continued to operate its two research stations at Port Colborne. In one, research was advanced in the treatment of intermediate products to provide refined nickel and associated refined by-product metals in an-

ticipation of the metallurgical needs of the future. The second station continued research on the treatment of nickel ores.

In the United Kingdom, a new production unit for the refining of platinum-group metals was installed at the Acton refinery. It will handle larger batches and will provide closer control of operations. Research at the Acton laboratory led to outstanding improvements in the ductility and workability of ruthenium, and has opened up the possibility of exploiting the high corrosion resistance of this metal in industrial applications. At Clydach, the new nickel chloride plant in the chemical products department was put into operation, and a new cobalt recovery plant was completed.

As part of its continuing research activities designed to develop specialized nickel products for particular applications, the Company was successful during the year in producing and introducing on a commercial basis three new or improved nickel products. One is a special grade of sulphur-containing electrolytic nickel, marketed as "SD" nickel in North America and "S" nickel in Europe, for which the demand has been increasingly strong in the electroplating industry. Another is a new high-purity carbonyl nickel powder for use in the field of powder metallurgy. The third is an improved soluble nickel oxide which has found a ready market in the chemical, ceramic and electronic industries for use in the production of nickel chemicals, catalysts, enameling frits and ferrites.

At our Huntington, West Virginia plant, construction of the new rolling mill and forcing press moved ahead, and rolling operations are expected to begin during the second half of 1964. Work started on projects to provide new facilities for strip and sheet production and for wire drawing.

With the transfer to Huntington of the manufacture of welding electrodes, formerly carried on in

Five Girls Receive Coveted Gold Cord, Highest Award in Guiding

Highlight of impressive Thinking Day ceremonies honoring the joint birthdays of Lord and Lady Baden-Powell was the presentation at Lively High School of gold cords to three Girl Guides of 1st Lively Company. District Commissioner Mrs. A. Maskell is seen here attaching Guiding's highest award to the uniform of Patricia Brigham; the other two girls receiving the coveted honor were Wendy Kovalchuk (left) and Barbara Morrison. A large audience attended.



Gold cords were also presented by the divisional commissioner for 8 division, Mrs. Norman Hayden, to Lois Horack of 1st New Sudbury Company (left) and Sheryl Bangle of Garson, formerly of Lively, now a member of 1st Coniston Ranger Company. Mrs. Hayden said it usually takes about five good years of Guide work to earn a gold cord.

our Bayonne, New Jersey plant, the Bayonne plant was closed.

The concentration of our rolling mill operations at Hereford in the United Kingdom, which were formerly carried on also at Birmingham and Glasgow, was almost complete at year-end. One item, the last portion of the hot sheet mill, remained for completion in 1964. Part of the old premises at Birmingham has been sold and the Glasgow plant has been dismantled.

New facilities put into operation at the Hereford plant during the year included a planetary hot strip rolling mill, a combined coiling and wire rod mill, a 3,500-ton horizontal extrusion press, and a dual frequency vacuum refining furnace.

Exploration

During the year the Company continued its worldwide search for new nickel deposits. Exploration expenditures were \$6,433,000, compared with \$5,873,000 for 1962. About one third of the expenditures in these two years was for exploration work in Manitoba.

In the Sudbury District, systematic surface and underground programs were continued to explore extensions of known ore bodies and favorable locations for new ore occurrences. Shaft-sinking operations were completed at the Copper Cliff North mine which will permit

major exploration at the 2,000 and 4,000-foot horizons. Also, in Manitoba, the Company proceeded with its systematic programs of exploration of the Thompson mine ore body and surface drilling in other locations.

Continued emphasis was placed on exploration in Canada outside the immediate Sudbury District and Thompson areas. Sampling of the gold deposit discovered in 1961 in the Northwest Territories was continued in 1963.

Outside of Canada, explorations and property examinations were conducted in many parts of the world, including Guatemala, the South Pacific and Africa.

Capital Expenditures

Capital expenditures during the year, amounting to \$36,032,000, were less than anticipated principally because of changes in construction schedules. Capital expenditures were \$61,033,000 in 1962 and \$45,969,000 in 1961. Over the past five years capital expenditures amounted to \$285,898,000 in total.

Expenditures during the year included \$8,369,000 for the completion of the extension to our iron ore recovery plant at Copper Cliff, and \$3,104,000 at our other smelting and refining plants in Canada and the United Kingdom. Mine development expenditures in Ontario and Manitoba amounted to

\$4,241,000. New facilities in our rolling mills in the United States and the United Kingdom amounted to \$14,081,000. Expenditures of \$5,489,000 were made on our product research laboratories, and the balance of \$748,000 was expended for capital items at our other properties.

Capital expenditures in 1964 are expected to exceed \$50,000,000.

Nickel Markets

Free world nickel consumption reached an all-time high of approximately \$25,800,000 pounds in 1963. This represented an increase of \$2,000,000 pounds over 1962 and an increase of 19,000,000 pounds over the previous high in 1961 of \$66,800,000 pounds. The 1963 consumption amounted to more than 80 per cent of the free world's nickel production capacity, estimated at over 640,000,000 pounds per year.

Consumption in the United States, the world's largest user of

nickel, was at a record level, and most other countries of the free world used more nickel in 1963 than in the previous year.

A major factor contributing to the record use of nickel was the resurgence of the steel industry throughout the free world and, in particular, the increased production of nickel stainless steels and constructional alloy steels. In addition the electroplating industry, for the fourth successive year, established a new record of nickel consumption. This reflected the ever-increasing acceptance of quality plated products and the continued high production of automobiles and household appliances.

Other Markets

The Company's reduced deliveries of copper, which is marketed under our "ORC" brand name, reflected our reduced supplies resulting from the 1962 curtailments of nickel production from our Ontario mines. Canada continues to be our principal market for copper. Over 90 per cent of the copper we marketed during the year was consumed by customers in Canada, the United Kingdom and other Commonwealth countries. The balance went mostly to continental Europe.

The 1963 free world consumption of platinum-group metals was strong as industrial uses continued to expand. Principal uses for these metals are in the petroleum, chemical, communications, and glass industries. While more than one half of all platinum used in the 1920's went into jewelry, this market now accounts for less than 10 per cent of platinum used.

The output of Ductile Iron (S. G. Iron), produced throughout the free world by royalty-paying licensees under the Company's patents, totalled a record 925,000 tons in 1963, an increase of some 30 per cent over 1962.

Deliveries of Metals

The Company's deliveries of nickel in all forms were 10 per cent higher than in 1962. Total deliveries in 1963 were 350,730,000 pounds, compared with 318,170,000 (Continued on Page 16)



So Long, Dmytro

The gang from 2800 and 3000 levels gathered in the warmroom at Creighton 5 shaft to say "So Long" to Dmytro Chytuk, who was going on retirement. He had worked at Creighton since joining the Company in 1942. Bert Garbut, pictured on Dmytro's right, presented him with a purse of money on behalf of his friends at work. Shift boss Tom Murphy and foreman Nelson Crowder are among those seen here wishing Dmytro the best in retirement. Dmytro had been a slusherman for many years.

Free-Wheeling Levack Huskies Winding Up Big Season



Glowing with a big fat 16-3 victory over Temiskaming Royals in the third game of their playoff series, Levack Huskies were a happy crew as the Triangle camera took their picture. The teams split the first two games, both by only one-goal margins, but after swamping Royals in the third match the Huskies were pretty confident they had the rest of the series in the bag. The winner will meet Wawa for the Northern Ontario Intermediate B championship. Huskies have beaten Wawa 7-4 and 9-4 in exhibition games during the past winter. They also tied Abitibi Eskimos, a senior A team, 4-4 in another exhibition. Manager-coach Laddie Kavluk is mighty proud of his team.



Three Huskies, Gaylord Cull, Frank O'Grady and Ray Parker each scored the three-goal "hot trick" in that 16-3 runaway from the Royals on March 15. The above action shot shows right-winger Parker beating Temiskaming goalie Ward Shade after taking a pass from Dannie McKay on the left wing. Royals shown are captain Bob Reid (4) and Steve Hogan (7). The fourth and fifth games of their series are billed for Temiskaming March 18 and 29. The sixth, if necessary, will be played at Sudbury Arena.

TURBINE ALLOYS

Nickel alloys play an important role in gas-turbine engines, particularly in those being developed for

future automobiles. The first prototype gas-turbine sports car to race in this year's Le Mans endurance race in France used high nickel al-

loys in such essential components as turbine rotors and nozzles, gas ducting pipes, and as lining for its combustion chambers.

Fillipo Imperatori

Fillipo Imperatori has worked as a bricklayer most of his life, mostly at Inco where his continuous service dates from 1925 although he had worked in the smelter at Copper Cliff as early as 1920. Now enjoying an early service pension he is the picture of health and contentment.

"I started working when I was 12 years old," he said. "I got two cents an hour helping a mason." That was in Italy where he was born in 1899. He came directly to Copper Cliff after arriving in Canada in 1920 and was soon working at the smelter. Laid off in 1921 he returned the following year but quit in 1923. "I worked all over the place then," he recalled. The old Murray mine, Canada's west coast, Toronto and other spots



Mr. and Mrs. Imperatori

saw him briefly before he returned home to Copper Cliff in 1925.

Starting back in the plant working on the bins he was soon transferred to the bricklayers. He worked more than 20 years with the plant gang and the remaining years with Vic Baker's town gang.

On a trip back to Italy in 1930 Fillipo met and married Maria Baldelli and their three daughters have all married Inco men. Nancy is married to Bob Forsythe of the laboratory, Annie to Owen O'Reilly of the Copper Cliff machine shop and Nelbe to Leo Dupuis of the Copper Cliff mill. The four grandchildren provide this fine couple with much pleasure.

Fillipo enjoys daily walks and visits with family and friends, playing cards at the nearby Italian Club, watching TV and reminiscing with old friends. In summer the garden will claim most of his time.

Peppe Pensioner

Former assistant to the manager of mines C. H. Stewart, who has resided in Albuquerque, New Mexico, since his retirement on pension in 1961, is apparently as zestful a sportsman as ever. Writing to a friend at Copper Cliff he reports: "Had a good deer hunt last fall and shot my first running deer from horseback while traveling at a full gallop. Of course it would have been no trick for Buffalo Bill but it was a thrill for me. A case of shoot quick or not at all."

An ardent fisherman who tied his own trout flies he later took up golf and still plays regularly. He says he also has another new pastime besides hunting on horseback. He collects gem rocks and works them into sets for cuff links, bolo ties, rings, etc., selling enough to defray the cost of this rather expensive but pleasantly time-consuming hobby.

INCO FAMILY ALBUM



Fred Tyefischer was raised in Manitoba and has worked about eight months at Thompson where he is a track boss. When this picture was taken they had just moved into their new home on Pintail Crescent. With Fred are his wife Rose and their five youngsters, Rickey, 11, Brian, 7, Linda, 4, Susan, 3 and Darrel, 7 months.



Bernard Lee, on the Port Colborne engineering department staff since 1948, did most of the work himself in building his handsome home at 56 Berkley Avenue. He and his wife Barbara, a Ridgeway girl, are both bowling fans. Their smiling children are twins Kathleen and Kimberley, 6, Michael, 7, and Chris, 11.



John Parker and his wife Winnifred are seen here with their son Jim, 10. John is a motorman at Creighton 8 shaft. They live near Siman Lake and operate a small business there in the summer months.



Bruce Hykin is looking forward to the day when his two young sons, Billy, 4, and Bruce, 18 months, can go fishing with him. Bruce fishes winter and summer at his Geneva Lake camp and his wife Mary also enjoys the outdoors. Bill works in the blacksmith shop at Levack, where his father worked before him, retiring in 1956.



Bill Blaney, long-time underground trammer at Frood-Stable, is pictured with his family in their fine new home in Sudbury's Northern Heights. His wife Armande, Carol, 16, Lynda, 11, Colleen, 8, and Brian, 5, make up his attractive family.



A bin boss in the crushing plant at Copper Cliff, Ken Swant enjoys his family, his home and fishing, in that order. Here he is in their comfortable Barry-Downe home with his wife Mary, sons Kent, 17, Blain, 10, Kevin, 5, and daughter Nancy who is 13.



Representing Coniston are Mario Mirabelli, his wife Esther and their three children, John, 14, Angelina, 11, and Juliano, 9. Mario has worked on the blast furnaces at Coniston for over 14 years. They live in the Gatchell section of Sudbury.



Garry Klein is taking an ore sample after first marking up the ore contact in 38.5 stope on 1400 level. Marking the ore contact is standard procedure by the geologist to assist in the efficient mining of the irregular Thompson orebody. The sample Garry is collecting will be taken to the geological department for visual estimates of its metal content and may then go on to the laboratory for assay.



Dan Gray measures a band of mineralized schist during the geological mapping of a stope on 1400 level. The information he gathers, such as the grade and type of mineralization and the rock structures will be transferred to the geological records.



In 30 stope on 800 level Len Eckstrand checks drill core with driller Sacundio Rodriguez in a preliminary logging before the core is taken to surface for detailed logging and sampling. This visual check of the grade is to determine any change in the extent or attitude of the orebody, for control of mining operations.

A VISIT WITH

The Mine Geological Department

AT THOMPSON

On this and the next page are pictures of personalities in the mine geological department at Thompson, photographed as they carried on with their interesting work.

Theirs is the responsibility of determining the distribution and grade of ore in the mine.

Their department provides the operating, engineering, and efficiency departments of the mine with projections and general geological information covering the extent and types of ore and rock to be encountered, and the ground conditions to be anticipated.

They also carry on the search underground for new orebodies or extensions of known orebodies.

The Thompson orebody was discovered early in 1956, in the course of an extensive exploration program in Northern Manitoba, a program that is still continuing. By the end of 1956 the existence of a

major orebody had been proven, and plans had been announced for its immediate development.

The orebody extends over a length of approximately 3½ miles. It lies in a schist zone conformable with the local formation. The dip is fairly steep, about 65 degrees, with local flat-lying areas associated with the structure of the deposit. The ore pinches and swells both along strike and on dip, with further irregularities owing to local offshoots into the wall rocks. Mining widths range from the minimum practicable up to a maximum of around 150 feet. In general both the wall rocks and the ore are fairly strong.

The orebody is being mined by the horizontal cut-and-fill method, chosen due to the local irregularities.

The major structure that controls the distribution of ore at Thompson is an anticlinal fold



Ernie Gallo and Jeff Sample prepare to photograph in color some irregular structural details in 39.5 stope on 1400 level. The color slides will be used for study and record. Taking pictures of geological features "on the job" is a recent innovation at Thompson.



Drill core from all underground diamond drilling, running into thousands of feet per month, is taken to the core shack where it is washed, logged, and photographed. In logging, such details as mineralization and rock type and structure are noted. Samples of the mineralized sections of the core are then sent to the laboratory for assay. On the left, above, Dick Agar is

striking northeast and plunging steeply to the south. The locus of the ore is a schist zone which is continuous over the length of the structure and which is conformable with the overlying and underlying formations. The main concentration of ore occurs along the southern portion of the east limb of the fold, around the nose of the fold, and within associated minor crenulations and drags.

The nickel mineralization occurs as disseminations and stringers in the serpentinized peridotite and as massive bodies and stringers in schists, metasediments and gneisses.

The basic purpose of the mine geological department is to apply the established geological knowledge in the efficient mining of known orebodies and in the search for new ones, and at the same time to increase in effectiveness by adding to the store of information.

All mine openings are mapped regularly as the underground workings advance, and the information is transferred daily to the base maps. On these maps the growth of new structures is watched, and from them information necessary to direct exploration is obtained. They are essential in dispensing the geological information used in day-to-day mining operations, and they constitute a permanent consolidated geological record.

A large portion of the mine geologist's time is devoted to providing services that have to do with direct mining operations.

"On the spot" determination of mining limits by estimation of grade is a regular duty of the stope geologist.

Much effort goes into providing the engineering department with ore outlines in irregular ore areas being laid out for mining.

A study of structure ranging from shearing to jointing precedes reports covering the physical



Colin Riley and Joe Lapina check the mapping of a recently driven exploration diamond drill before it is recorded on the permanent geological records.



Keith Maclean and Carl Renzoni examine a beautiful specimen of Thompson ore showing intense folding of both mineralized schist and sulphide.



washing core to facilitate logging, with Ernie Guilboche assisting him. Picture on the right shows Carl Goddard, assistant to the chief geologist, discussing with geologists Grant Hambley and Jack Vincent features of the Thompson orebody as outlined on a plexiglass model which was made at Thompson.



At the light table draftsman Vic Goodman traces detail of geological information on a linen for the department's permanent records.

qualities of the ore and its wall-rock in relationship to mining methods. Recommendations are submitted covering the location of development workings, which are placed where they will be least liable to sloughing and rock-burst conditions.

Through the day-to-day study of detailed information gleaned from visual observation, color photographs, mapping and samples of the ore and rock taken by hand or drill and sent on for assay, the mine geological department provides "eyes" for the engineers and operators as they go in to get the ore.

Albert Ladurante

Albert Ladurante and his wife Jane Harmon were both born and raised in the Sudbury area, Albert in the city and Mrs. Ladurante at Nairn. "I remember one spring as a kid we paddled a canoe in front of the old post office on Elm street," recalled Albert, and his wife remembered when her family moved to Coniston in 1912 the only dwelling was the Nickel Club. "There were a few houses in what we

call "Old" Coniston," he said.

Albert has retired on early service pension after serving as plumber at Coniston for 36 years. He first worked there in 1924 but quit and returned in 1927. Earlier he had worked a year as rock picker at Levack and before that drove horses at the old Moose Mountain mine. "My first job though was with a plumber in Sudbury," he said. "I worked with him for over three years."

The Ladurantes were married in 1925 and have a son Roy working at Copper Cliff, a daughter Margaret (Mrs. C. Wyatt) in Weston, and five grandchildren.

The summer home on the Wahnapiet river below Stinson that this couple have enjoyed for many years now, has been converted into a year-round dwelling that suits them just fine. "We're only a mile



Mr. and Mrs. Ladurante

from the highway and our road is always ploughed open in winter," Albert said.

Right now Albert is enjoying a lazy man's life. He drops in at the curling rink at Coniston each Wednesday afternoon for some curling and a visit with his old buddies. Come spring though he has a big landscaping project to tackle and he also hopes to bait a lot of hooks this year. And of course the view from his hillside home is conducive to pleasant relaxation over a pint of the best.

DEEP IN THE HEART OF TEXAS

The world's deepest oil well, in Pecos County, Texas, reaches 25,240 feet below the earth's surface. Nickel alloy steel drill pipe was used to reach that depth.



The carpenter shop crew and other surface personnel at Creighton 5 shaft hopped up on benches to pose for a picture with Karl Suutari, popular retiring carpenter, as he was presented with a wallet of money by master mechanic Fred Pentney. On the left in the front row is Creighton mine

Karl Suutari

"On the boat coming over I met a fellow who had a cousin in Sudbury, so after landing at Halifax, we headed straight for there," recounted Karl Suutari, who recently retired from Creighton on early service pension. "That was in 1924," continued Karl, "and I managed to get a job helping build the Regent theatre."



Mrs. Suutari

It was another 10 years before he started with Inco and during that decade, Karl worked in the bush, helped build a sawmill at Blind River, and worked with Fraser-Brace on the smelter and refinery construction at Copper Cliff. During the peak depression years he had very little work but managed to live quite well at the camp he had built on Little Penage Lake.

Starting at Frood in 1934, a week later he was sent to Creighton where he worked in the carpenter shop until retirement. "You can't beat that Creighton," emphasized Karl. "It's the best place to work and they have some of the best

people there. At least I thing so."

Karl married Mary Makela in 1928 and they have two sons, Ray and Arnold, both in Sudbury, and two grandchildren. Ray was an Inco scholarship winner in his final year at Copper Cliff High School.

The Suutaris have a comfortable home on George Street in Creighton that Karl built in 1938 and they also make full use of their summer home.

Born in Finland in 1901, Karl is planning his first trip back there next spring.

Joe Nardi

When Joe Nardi came to Canada in 1925 he went straight to Vancouver but in a few months was back east working at the paper mill in the Soo. The next year he came to Copper Cliff. He retired in February on service pension and is enjoying his leisure very much.

After working with Fraser-Brace on the new smelter construction, Joe in 1931 went back to his native Italy for a couple of years, then in 1933 returned to a job at Copper Cliff smelter. Starting with the yard gang he went into the carpenter shop in 1940 and remained



Mr. and Mrs. Nardi

there until his retirement. "That was the best place to work," declared Joe.

In 1948 Joe built his own home in the Gatchell section of Sudbury and lives there with his son Mario. Another son Sabario is in New York; daughter Louisa's husband Almerino Natalie works on the nickel reverbs.

All-Ontario Badminton Titles for Garson



Peter Orfankos

Photographed for the Triangle as they appeared before the CKSO television camera are Garson's young badminton stars: Judy Cull, Lauri Nicholls, Judy Morin, Terry Lennie, Terry Ralph, Stewart MacKinnon and John Gregg. In the foreground CK-TV sports celebrity Hub Beaudry interviews the team's proud coach, Rene Paquette.

Emulating the feats of young Creightonites a few years back, a team of youthful Garson badminton stars made a terrific showing in the all-Ontario junior championships at Midland.

Competing in a field of 135 players the Garson contingent won two all-Ontario titles and finished strongly in other events.

Judy Morin won the all-Ontario girls' singles championship, and then teamed with Terry Lennie to take the doubles crown.

Lauri Nicholls went to the semi-

finals before bowing out to her club mate, Judy Morin. John Gregg and Stewart MacKinnon were finalists in the boys' doubles, and Stewart MacKinnon made it to the semi-finals of the singles.

Other members of the team were Judy Cull and Terry Ralph.

Their hard-working coach, Rene Paquette, a driller at Garson mine, has been receiving congratulations from all sides on the splendid performance of his charges in provincial competition. Their victories brought fame to their home club, Garson Employees Club.

Mrs. Nardi was Rosaria Ayelo before their marriage in 1932. Their seven grandchildren give this couple many pleasant hours.

Joe's most recent trip back to Italy was in 1959 and the chances are good that he'll be heading that way again either this year or next.

Oops! Wrong Hospital!

The stork made no mistake, but we did.

Reporting the birth of Sudbury's first baby of 1964 to Mr. and Mrs. Jack Perron, the Triangle stated that the big event took place at the General Hospital instead of at the Memorial Hospital.

The man from Memorial had a sob in his voice when he called us about it. "It was the first time we ever had the first baby of the New Year," he said. "Then you went and gave him to the General. Fine thing!"

Fine thing indeed! Sorry, Memorial.

Recalled Employees As Well As New Men Get "Full Safety Treatment"



Men returning to Inco mines and plants on the recent recall, as well as new employees have been impressed by the strong safety spirit when they were interviewed by the mine supervision and received their safety equipment. At all mines and plants, each recalled employee gets the same talk as the new employee on the importance of safe workmanship to himself as well as to his workmates. In the first picture above, new man Waldo Gundrum listens intently as Stobie assistant mine superintendent Dave Lennie stresses that to be a good miner a man must be a safe miner; on the left is underground



superintendent Casey Jones. The second picture shows Waldo at the mine warehouse, to which he has been escorted by Stobie personnel officer Garnet Milks to get his hard hat and safety boots; the warehouseman serving him is Pete Loberge. Boasting over one million man hours to date without a lost-time accident, the Stobie section of Frood-Stobie mine is a mighty safety-conscious crew. "Let's make it two million at least," is the way they're thinking these days.

Joe Keir

Arthur Joseph Keir is now a man of leisure. With continuous service dating back to 1934 he has retired on full service pension.

He plans to leave Port Colborne in the near future to live in Montreal.

Joe was born in London, England, and received all his schooling at Kings' College in that big city. He apprenticed as marine engineer at Fairfield Shipbuilding and Engineering Company in Glasgow. From there he took to the high seas and for five years was a marine engineer with Cunard Steamship Lines. During World War I he enlisted with the British Army in 1917 and was wounded while on active service in France. He was demobilized in 1919. In 1926 he came to Canada and worked for Imperial Oil, C. S. Boone and Canadian Purnace division of Algoma Steel before joining Inco in 1934.

Joe was a highly regarded employee and faithfully handled the responsibility of keeping steam up for the past 29 years with the exception of five years in the Royal Canadian Navy. He joined the Navy in 1940 as a marine engineer. When discharged in 1945 he held the rank of lieutenant (engineer). He was a member of the Port Colborne School Board for 14 years, serving as chairman during the years 1950 and 1951.

Joe married Mary Margaret White in 1930. She died in 1952 leaving him with three sons and a daughter: Robert of Sudbury, a journalist and presently a member of the City Council; Paul, an electronics technician with Bell Telephone in Welland; Peter, an apprentice marine engineer at Davies Shipbuilding Company, Levis, Quebec, and Mary Elizabeth

Joe married Mary Margaret White in 1930. She died in 1952 leaving him with three sons and a daughter: Robert of Sudbury, a journalist and presently a member of the City Council; Paul, an electronics technician with Bell Telephone in Welland; Peter, an apprentice marine engineer at Davies Shipbuilding Company, Levis, Quebec, and Mary Elizabeth



Here new miner Gundrum signs for other items of his personal safety equipment, his safety belt and safety glasses, issued to him by Larry Delaire at the first aid room.

(Mrs. Gerald Yur'echek), Montreal. Nine grandchildren complete the Keir family.

At a gathering in the mechanical department Joe was presented by Charles Ott with a purse of money from his fellow employees as a token of their respect. J. H. Walter thanked Joe on behalf of the Company and expressed the wish that he would long enjoy his retirement in health and happiness.

First Aid Finals

At all Inco mines and plants in the Sudbury district the annual elimination competitions are underway to determine which teams will take part in the semi-final and final matches for the first aid championship.

Semi-final contest for the intermines title and the H. J. Mutz trophy is scheduled for April 7, and the semi-final for surface plants, with the D. Finlayson trophy at stake, takes place April 9. Both events will be held in the Inco Employees Club, Sudbury, commencing at 7:00 p.m.

The grand finale for the R. D. Parker shield is billed for the Inco Club on April 23.

Vincent Elder

Born and brought up in the beautiful lake country between Orillia and Huntsville, Vincent Elder is returning there to live now that he has entered retirement. A stationary engineer at Creighton since shortly after starting there in 1937, he is in fine health, enjoying his leisure, and planning for the future.

Topmost on his agenda is the construction of a new lakeshore home he and his wife have been planning all winter. An I.C.S. graduate in drafting, Vincent has drawn all the plans and they hope to start building by April. Their new home will be located within hailing distance of where Mrs. Elder was born, about 20 miles from Huntsville. She was Mary Cunningham before their marriage in 1945.

With most of his working life spent around steam boilers Vincent recalled that his first job at age 16 was operating the steam locomotive that pulled a train of passengers the mile or so between



Mr. and Mrs. Elder

Peninsula Lake and Lake of Bays. "There is about 100 feet difference in elevation between the lakes, Vincent explained, "so the passengers had to change boats."

Later he worked many seasons on steamboats on the Muskoka Lakes and the Great Lakes. "That's where I got my time in to write for my papers," he said. He got his 4th class papers in 1929, his 3rd class in 1938 and his 2nd class in 1944.

During the twenties Vincent worked as a draftsman in Pittsburgh and Detroit. From 1929 to 1931 he was chief engineer on a boat running between Norway Point and

Bigwin Island and in 1934 served on the old Chippewa out of Toronto. "I worked on 13 different boats," he recalled.

Vincent applied for a job as draftsman at Creighton but with no vacancies in that category took a job in the carpenter shop. Soon he was firing a boiler at no. 3 shaft, went on the compressors in 1940, and took over there from Joe Nicholls when he retired in 1946.

The gang at Creighton presented him with a fine set of fishing tackle on the occasion of his retirement.

Easter Music

The second and third parts of The Messiah, performed by Sudbury Philharmonic Society under the baton of its founder-director, Eric Woodward, will be an Easter Sunday music presentation of The International Nickel Company.

Taped at a concert given by the Society March 20, the program will be broadcast by Radio Station CKSO from 1:00 to 2:30 p.m. on March 29.

Two outstanding Toronto artists, soprano Norma Lewicki and tenor Garnet Brooks, will be heard with the Philharmonic in the presentation.

Bob's Line Was Busy



Frood man Bob Burgess, an ardent fisherman, wouldn't say where he caught this 15-pound lake trout, but he was certainly on a busy line, hauling up a 5-pounder and a 4-pounder the same afternoon, February 16.

Competition Keen but Public Interest Weak at Festival



H. T. Dionne

Stephen Monk, 12-year-old accordionist, is seen above receiving the \$250 International Nickel scholarship from Inco administrative assistant Richard G. Dow at the Festival Hi-Lites concert. Studious young Stephen has been studying the piano accordion for six years; his ambition is to become a music teacher. His father, Samuel W. Monk, is office manager of Weldwood-

The Festival has come and gone again, leaving 6,000 young competitors the richer for a fine musical experience.

It had more entries and fewer spectators than ever before. The Kiwanis Club and the Sudbury Branch of the Registered Music Teachers' Association, its loyal, hard-working sponsors, took their reward from an inspiring task well done, if not from public appreciation and interest.

Of the 925 entries, the school choirs, accordion, and piano classes attracted most. There were only six entries in the violin classes.

Over 60 trophies, shields and other prizes were awarded during the festival, in addition to some 17 scholarships administered by the Kiwanis Scholarship Fund.

Besides the \$250 Inco scholarship won by Stephen Monk (above), the following major awards were made at the Festival Hi-Lites concert:

Saul Silverman Memorial scholarship, \$300, won by Boyanna Toyich, pianist, presented by Peter Silverman.

Falconbridge Nickel Mines scholarship, \$150, won by accordionist Carol Belland, presented by Bruce Kerr.

Sudbury Star scholarship, \$150, won by Susan Kneeshaw, pianist, presented by Festival chairman Michael Martin.

Doran's Northern Brewery scholarship, \$100, won by Janina Scot, violinist, presented by Dal Lamont.

NICKELSWORTH OF HISTORY

Although the element nickel was discovered by the Swedish scientist Axel Frederick Cronstedt in 1751, metallic nickel was not produced on an industrial scale until 1824, and nickel plating was not introduced until 1843.



Westply Ltd., Sudbury. He has previously won two Kiwanis scholarships at the Festival. The picture on the right shows one of the seemingly innumerable school choirs which annually descend on the Festival and are the backbone of its success. These young songsters are from St. Albert's Separate School, and their music director is Mrs. Larry Menard.

Johnston Winning Skip In F-S Spiel



Winners of the first event in Froed-Stobie Athletic Association's big annual curling bonspiel are pictured above being congratulated by mine superintendent S. J. Sheehan: skip Wes Johnston, Bill Demkiw, Gene Mullins and Mike Sorochninski. Runner-up was Gordon Milne's rink of Jim Harper, Joe Cyr and George Orbeck.

Max Matte, who won the first event last year, skipped a new team to top honors in the second event this year. Andy Rayne and Wilf Duguay were his mates. Finishing a close second was Al Demkiw's rink of Arnold Schultz, Joe Chudczak and Rube Hortness.

The third event proved to be the thriller of the spiel with an extra end required before Charlie Pitts drew a beautiful rock home to squeeze out Sid Sheehan's four-some. Charlie had Les Thornton, Bill Reynolds and Guy Arsenault on his rink. Gerry Mulligan, Fern Dionne and Murray Kilby made up the Sheehan rink.

Eldred Dickie handled all the 'spiel details with his customary



SECOND EVENT WINNERS

THIRD EVENT WINNERS

flair. Ted Goddard and Gerry Mulligan made up a first-class draw for the 38 competing teams. The bonspiel was held on February 28, 29 and March 1.

Mrs. Johnston and her lunch counter staff at the Copper Cliff Curling Club served an excellent buffet supper on Saturday night.

Presentation of awards was made early Sunday evening.

POETIC INJUSTICE

"Who is the responsible man in the firm?" asked the salesman. "I don't know who is the responsible man, sir," said the office boy, "but I always get the blame."



Frank Bartolini "floats like a butterfly" but not for long as instructor Dave Jinks "stings like a bee", to use Cassius Clay's fanciful way of putting it, during a demonstration of the familiar hip throw at Thompson's gym club. In judo wrestling the clothing is always grasped when making a throw.



Don Morrison is the victim as Dave Jinks shows members of his judo class the correct way to apply a choke hold. Class members seen in the picture are Dominic Vidoni, Tom Cook, Heinz Wegner and Marc Lery.

Judo Taught to Thompson Gym Club By Second Black Belt Dave Jinks

Compared with the mugging, slam-bang style of modern wrestling, the ancient and honorable art of judo stands out as a highly ritualistic science.

This difficult sport, requiring great skill and finesse as well as superb mental and physical condition, is being taught at Thompson by Dave Jinks, one of Canada's ranking exponents of this oriental art. Dave, a member of the security force at Thompson the past two years, won the Canadian midwest judo championship in 1960, was runner-up in 1961, and also in 1961 placed third in the all-Canadian championships. He is a "nidan" or second black belt, a rank placing him among the experts.

There are seven belts in judo, from white for the beginner through yellow, orange, green, blue, brown to black, the goal of every judoist. At the black belt stage there are 10 separate degrees but beyond seven these are largely honorary. Dave told the Triangle. Only two men are 10 black belts, he added, both Japanese and both in their seventies.

Dave organized the Inco Gym

Club about a year ago and one of the vacant camp buildings at the Thompson plant serves as their gymnasium. Some weight-lifting equipment has been installed along with mats and it is here that Dave instructs his 15 tyro judoists. "It helps keep me in shape too," grinned this genial giant, "and that's what I need, along with more competition." Members of the club pay a small fee, the money being used to purchase additional equipment.

So immersed is Dave in this sport that he plans on going to Japan this month in order to further study and perfect his technique. He would then like to teach judo in Canada. "I will be attending the Kodokan in Tokyo," he explained. "It is rated as the best judo school in the world."

Dave first became interested in judo as a means of self-defense. "I was 'the fat boy' at school," he explained with a smile. He soon learned, however, that judo required strict mental as well as physical discipline, the purpose being to develop an efficiency of mind movement that could be ap-

plied to all facets of daily living. "To some it is almost a form of religion," he said.

Born and raised in Birmingham, England, Dave has been in Canada for six years. He is married and hopes to take his wife to Japan with him. His future plans envisage teaching judo in some large Canadian centre and preparing himself as a judo competitor for the next Olympics.

Elzear Fortin

If it's true that a man is only as old as he looks or feels then Elzear Fortin is about 48. Actually he is 68 but just bubbling over with youthful vitality. "I feel great," he beamed. "Always have. And the reason is that I always eat three good meals a day and don't worry. And," he added with a twinkle in his eye, "I enjoy a drink of good gin too."

Elzear has retired from the converters at Copper Cliff on pension but being unhappy when idle he already has his sights set on another job. "I was bartender in this town many years ago and liked

it," he enthused. "So I think maybe I'll go back to that work."

Born and raised at Verner he spent many years working the sawmills in summer, diamond drilling and bush work in winter. He recalled working back of Killarney where he said the virgin yellow pine and hemlock ran better than 60 inches at the butt. "I worked at Bellwood mine and Milnet too," he added.

From 1929 to 1937 he worked underground at Frood, spent the next two years at Falconbridge then bought a farm near Buckingham, Quebec.

In the early forties he was back mining, this time at Timmins, then in 1947 returned to Inco. He was powderman on the converters for a number of years. A good workman with boundless energy, and a man with strong political



Mr. and Mrs. Fortin

convictions but a robust sense of humour, Elzear was popular with the gang at work.

Marie Jeanne Patry became Mrs. Fortin in 1924 and their family include sons Henry in New Jersey, Leo and Valdis in Sudbury, daughter Rita (Mrs. R. Barr) also of Sudbury, and two grandchildren. Elzear's brother Dave is a well-known supervisor at Frood.

SPINAL BEARINGS

An effective remedy for back stiffness sometimes caused by slipped-disk operations has been found, doctors believe, by placing a nickel stainless steel ball between the affected spinal vertebrae. Several patients so treated have returned to active and strenuous occupations without feeling any ill effects.

50 Years Of Marriage

George Hrcka married Dorothy Luptak on December 28, 1913, in the village of Cerova in Czechoslovakia. On December 28 last, they celebrated the golden anniversary of that happy event in their lovely home on Homewood Avenue in Port Colborne, where many of their friends feted them at a fine party.

Flowers, traditional gifts and congratulatory messages from Canada's Governor General, Prime Minister, and other national and civic dignitaries were received.

George was a Nickel Refinery man from 1928 until his retirement on service pension early in 1957. He and Mrs. Hrcka are in excellent health.



John Kamensky

John Kamensky has retired on early service pension from Port Colborne Refinery and is now helping his son operate their 190-acre farm in Wainfleet Township.

John was born 61 years ago in Austria and worked on the farm before coming to Canada in 1928. He started with the Company in 1929 as a puncher on the converters



Mr. and Mrs. Kamensky

In no. 1 building. When this operation was curtailed in 1931 he struck out for Copper Cliff where he again found employment with the Company and for the next 10 years worked on the converters. Returning to Port Colborne in 1941 John has performed a variety of process jobs for the past 22 years; for a time he worked in the mechanical department as a blacksmith helper.

John and Mary Pakisc, who became his wife in 1923, have a son and a daughter, both residing with them.

On his departure from the anode department John received a watch from his fellow workers and good wishes on behalf of the Company from assistant-to-the-manager C. H. Ott and superintendent Norm Hillier.

Peter Sunday

One of Peter Sunday's first jobs in Canada was working for the Foundation Company in Montreal. That was around 1913 as he recalls it. He along with the rest of his family had just immigrated to Canada from Austria. Later he worked for Fraser-Brace and several other construction firms before coming to Port Colborne in 1923 to join Inco as a carpenter.



Mr. and Mrs. Sunday

After being laid off a couple of times due to curtailment of operations, he again returned to construction work and one of his jobs was helping with the addition to the Humberstone Shoe Company. By 1937 he had again entered the employ of the Company and for the past 26 years has performed a variety of jobs in the anode, mechanical and shearing departments. He now retires on a full service pension.

In 1930 he married Mary Fogel. They have four sons, Peter, Adam, Anthony and Paul.

General Manager Commences Series of Safety Meetings



Continuing his program of keeping in close personal touch with accident prevention in the Ontario division, general manager T. M. Goetz has commenced a series of meetings with supervision at the mines and plants to discuss the effectiveness of safety promotion methods used in the various departments. The first of these informal meetings (above) was held at Caniston; on the right in the picture are master mechanic Gordon Adams, assistant yardmaster Don Simmon, and chief electrician Herb Goodspeed; on the left, smelter foreman R. J. MacNeil, superintendent of safety M. E. Young who will accompany the general manager to all the meetings, and plant superintendent R. L. Smith.

On leaving the shearing department Peter was presented with a wallet of money from his fellow workers. Charles Ott and Charles Bridges extended best wishes for a long and comfortable retirement to him and his wife.

Dick Viinikka

With arthritis giving him frequent bouts of discomfort Dick Viinikka decided to put away his hard hat and take a disability pension. An Open Pit man for 20 years, this genial Finn miner started at Frood back in 1928.

Dick was born in Finland 59 years ago and had served a year in the army before coming to Canada in 1927. A few months in the bush near South Porcupine and he had picked up enough



Mr. and Mrs. Viinikka

English words to get a job in the mines at Sudbury. "I started at Frood with the Mond Nickel," he recounted. "That was old no. 4 shaft and Martin Horne was the boss."

The following year Dick quit, but 1930 found him at Frood no. 3 shaft and there he decided to stay. He worked in stopes, pillars and raises until transferred to the Open Pit in 1944. He was pit miner and blaster there, then moved over to the new Clarabelle pit.

Dick and his wife, the former Helvi Pien, are planning to leave Sudbury. "We are going to move farther south and see if it will help Dick's arthritis," said his wife. The Viinikkas have a son Tauno who works in the research laboratory at Copper Cliff.

Dick finds his favorite sport, ice fishing, considerably curtailed on account of his ailment, but was happy to announce that he had been out a couple of times this winter. "Pretty good catch too," he grinned.

Murray and Garson In the Safety Spotlight

Murray and Garson mines both stepped into the safety spotlight during March by completing 100,000 shifts without a lost-time accident.

On March 1 the men of Murray went over the top with 100,156 safe shifts. They started their successful bid on June 28, 1962, and are still going strong.

This is the first time that Murray has reached the 100,000 mark. They previously reached a total of 99,096, when an accident cut off their run.

On January 1, 1964, they completed one full year without a lost-time accident, winning the All-Mines Trophy as well as individual awards.

Garson mine piled up 100,327 safe shifts between September 26, 1963, and March 13, 1964, and each man on the payroll during that period will be presented with an individual award.

In congratulating all personnel at the two mines on their fine efforts, safety superintendent M. E. Young pointed out that Garson has worked this year to date with only one major dressing.



Ernie Larabie Well Liked by All

Described by separation department superintendent Syl Merla as "one of the best-liked men in the building", Ernie Larabie has retired on service pension after 20 years with Inco at Copper Cliff. On his last day he was presented by his shift boss, Hughie Allan, with a wallet of money and the best wishes of all the boys. On the left in the picture are Syl Merla, Phil Doran and Johnny O'Neill, and on the right, next to Ernie, Ross Skinner and Jim Perry. Ernie will continue to live in Sudbury with his mother who, though over 90, is still very active. An expert carpenter, he expects to find plenty of work to fill in his time.



Manitoba division general manager F. F. Todd presented the championship trophy and cash awards to captain Herman Rohwer of the victorious mine team following the annual Inco first aid contest held February 26 in the Thompson High School auditorium. Other members of the winning team, from the left in the above picture, Eric Jacobson, coach, Jack Scott, Ron Aitkenhead, Bill Laing, Bill Loughton, Norris Desjardins.

Mine Team Captures First Aid Title In Closely Fought Final at Thompson

An alert smooth-working team from the mine department, coached by shift boss Eric Jacobson and captained by Herman Rohwer, won the first aid championship of the Thompson plant in a closely contested final match with a smelter team and an electrical department team.

Judges were Dr. J. B. Johnston, Dr. L. Rustige, and H. Bloy, safety director of the Mines Accident Prevention Association of Manitoba.

A total of 34 teams entered the preliminary competitions, 17 from the mine department, eight from the reduction plants, and nine from the miscellaneous departments. Almost 240 men took part.

Warmly congratulating the winners and runners-up in the final contest on their outstanding proficiency, general manager E. F. Todd expressed his thanks to the judges for their assistance in a difficult assignment, to the large number of team coaches throughout the plant for their interest and efforts, and to safety supervisor Harry Banasuk for organizing the highly successful competition.

Positive Thinking

Throughout his 58-year career with "the Nickel Company", as he always refers to it, Dr. John F. Thompson has kept a sharp eye on the present but at the same time planned for the future. He's still carrying on that way.

At a small luncheon of Inco colleagues in New York on March 6, chairman H. S. Wingate extended warmest felicitations to Dr. Thompson, who celebrated his 83rd birthday on March 8.

Dr. Thompson, with a twinkle in his eye, told the group, "I hope you will continue to keep in good health and take care of yourselves because I won't want to be lonesome around the office 10 years from now."

This coming July Dr. Thompson will complete his 58th year on the Company payroll. Honorary chairman and chairman of the executive committee, he goes to the office in New York every working day.

He welcomed the large number of townspeople present, saying he felt confident that the Inco first aid final would grow into an important annual event in the community, and would generate genuine public interest in first aid and safety work.

Members of the smelter team representing the reduction plants in the final match were shift boss J. Burt, coach, J. Somerset, captain, L. Bennett, G. Kingdon, J. White, R. Lutyse, and A. Kruk. On the electrical team which won out among the miscellaneous departments were foreman H. Lamontagne, coach, A. Cherry, captain, J. Lindsay, W. Hardacre, R. McIntosh, W. Grywinski and L. Collins.

Setting for the problem presented to the three finalist teams was a house where two workmen were repairing eaves troughing. One fell from a scaffold, 20 feet to the ground and suffered concussion and a fractured hand and thigh. His partner, although apparently not injured, was in a highly excited state and eventually fainted.

Good to Last (snow) Drop

Billy Podolski, 7, loves summer sports but he certainly hates to see winter come to an end.

Billy is a skier, and a very good one too. In the under-8 class in the Lively-Creighton championships this year he won all three events, downhill, slalom, and jumping.

As long as there was enough snow on the Lively ski hill this spring Billy was out there, his little skis chattering over the icy patches as he stretched the season out as far as it would go. It wasn't a very good winter for the skiers, but Billy made the most of it.

If he keeps after it like that, some day he'll be one of the hottest young skiers in Canada.

He also studies piano, and already has appeared twice in the Music Festival. He is the son of Mr. and Mrs. Terry Podolski of Lively.

Mike Kavanaugh

On Irishman first, last and always, Mike Kavanaugh is as easily identified by his brogue today as when he first arrived in Canada nearly 38 years ago. "We're going back this summer," said Mrs. Kavanaugh, who was Annie Furlong before their marriage in 1926. "Neither of us have been home since we landed here."

Mike is enjoying a full service pension after working on the roasters at Copper Cliff more than 33 years. He started with Inco in 1929, spent some time on the slag dump then moved in to the smelter. "I sure miss the gang there," he said.

During the first world war Mike saw plenty of action in France and was wounded three times. After discharge from the army he landed a job as cook at Westminster Cathedral in London and it was there that he met his wife.

Mike was all set to hit out for Australia but his new bride prevailed on him to try Canada. She had learned through a friend that a Mr. Gatchell, who had a big farm near Sudbury, would give



Mr. and Mrs. Kavanaugh

year he got a job at the Creosote plant, but it was only temporary and Mike went back to milking cows until he got on with Inco in 1929.

The Kavanahs have three sons, Jim in Toronto, Noss in the Copper Cliff warehouse and Eddie at the Copper Refinery. The four grandchildren get the finest in baby-sitting service from their fond grandparents.

"We've lived in this same house on Peter Street for almost 35 years," said Mike, "but I guess now we'll get an apartment in town."

Appointments

J. McCreedy, manager of mines, announced the following appointments effective February 14:

R. H. D. Brown, superintendent, Crean Hill mine;

D. Lennie, assistant superintendent, Frood-Stobie mine;

H. Bangle, assistant superintendent, Garson mine.

Transportation Department Has Its Own Poet-Laureate



A rhymester with safety on his mind produced a catchy slogan for one of the track motor cars at Copper Cliff:

This car goes forward, this car goes back,

So keep it on the safety track.

Along with the admonition on the opposite side, the nimble rhyme is a daily reminder for the track crews riding to and from their maintenance work on the Company's standard gauge track. The transportation department has three of these cars, hauling man cars and lorries. Shown at the helm above is Garnet McAuley.



Toronto Artists Hailed for Stainless Steel Sculpture of Famous Explorer

At the recent American Society of Metals Convention in Cleveland, Ohio, a startling stainless steel sculpture became the centre of interest for hundreds of people who visited the Atlas Alloys exhibit. Depicting the famed Father Marquette, the life-size sculpture was made almost entirely of Atlas Eze-form stainless steel.

The work of Toronto sculptors Mary and Marik Masson, the amazingly life-like statue indicates the new standards of excellence in modern material sculpture being attained by these two Ontario artists. Detail of the statue is intriguing, even down to such things as gown cord and fingernails.

The creations of Mary and Marik Masson are familiar to Sudbury District people, having often been featured in the Inco Window at the Chamber of Commerce offices.

Born at Laon, in northern France in 1637, Jacques Marquette joined the Society of Jesus in 1654, and sailed for Canada two years later. He was sent to the Upper Lakes in 1668, and stationed at La Pointe near the western end of Lake Superior.

The young Jesuit's thirst for exploration was awakened by his journey over the historic canoe route of the voyageurs, up the Mattawa and French Rivers from Ottawa to Georgian Bay and

thence along the north shore of Lake Superior to St. Ignace de Michillimackinac on the north shore of the Straits of Mackinac near Sault Ste. Marie.

When he heard from travellers of a great river flowing far to the south, he was filled with an ardent desire to explore it. His opportunity came when he was chosen to accompany Louis Jolliet on his memorable exploration of the Mississippi in 1673.

Descending the river to the mouth of the Arkansas, Jolliet and Marquette satisfied themselves that the Mississippi flowed neither into the Atlantic, or the Gulf of California, but into the Gulf of Mexico. They returned to Green Bay in September of 1673.

Marquette remained at the mission of De Pere until 1675, when he established a new mission at Kaskaskia on the Illinois River. His strength had been broken by the difficult journey of 1673, and on his return to Michillimackinac, he died on the shores of Lake Michigan on May 18th, 1675, at the age of only 38 years.

Marquette, whose travels took him through what is now Michigan, Ohio and Illinois, is revered as one of the Fathers of early America... a man whose work and life is a bright page in the mutual beginnings of both Canada and the United States.



CENTRE: Bob Mikkola is ready to give this rock a shot of instant broom as it starts to die on the doorstep; in the background is Eleanor Fynn. LEFT: Bud Osborne looks like a satisfied skip; Shirley Harrison of Cobourg, former Copper Cliff girl and daughter of Inco president J. Ray Gordan, was a guest curler with her husband Ralph. RIGHT: Dr. John Stalker and Bonita Roy were among the happy 'spielers'.



Amanda Munro and Rose Poulton, both looking very smart, enthuse over a takeout shot; Marian and John Rickaby survey the scene.



CENTRE: Ed Davey and Janice Stevenson pause between ends to light up. LEFT: Tes McMaster, who throws her rocks left-handed; John Woznow, the old Creighton Comet, looks a little anxious about this one. RIGHT: Don Meehan, the curling wife of D'Arcy Meehan; popular club secretary Ron Heale at the microphone.



"YES! YES! SWEEP!"
Louise Segsworth



"EASY NOW. LOTS IN 'ER."
Hughie Munro



"HORRORS! NOT THAT!"
Harriet Stalker



"HE'S NARROW! GRRRI!"
Alice Gibson



"JUST GOING TO GET BY."
Gord Poulton



"WELL, HERE GOES!"
Pat Charlebois

56 Rinks Happy In Cliff 'Mixed'

Ron and Noreen Gauthier teamed up with Rene and Rita Poirier to win the main event in Copper Cliff's second annual mixed bonspiel. In a well-curl'd final match they nosed out the strong entry of Joe and Auda Sauve and Dr. Allen Smith and his wife Blanche, guests from Richmond Hill.

The Gauthier rink also gave everybody a good laugh by turning up for their Saturday matches dressed as the Beverly Hillbillies.

With a total of 56 rinks the 'spiel rang up new records for size and sociability. Curling Club president Dan Kelly and secretary Ron Heale, who made the draw and kept it moving, were greatly pleased with the event and so were all who took part.

Estelle Johnstone and her catering staff outdid themselves with the sumptuous spread for the banquet, which was followed by all-out dancing with regular pianist Daisy Trepanier getting some high-class volunteer help from Ernie Loney and his boom bass, Dunc White and his banjo, and Keith Segsworth and his guitar.

The ice was in beautiful shape, thanks to the club's two genial experts, Ernie and Charles St. Pierre.

Results in the other events were:
Second event: 1. Lindo and Evelyn Cecchetto, Hugh and Myrie Allan. 2. Gord and Viv McQuarrie, Doug and Ruth Gathereole.

Third event: 1. Gord and Connie Chisholm, Harold and Rita Olivier. 2. Maurice Curlock, Barbara Hamilton, Dr. Bill and Donna Jacques.

Consolation: 1. Hughie and Amanda Munro, Gord and Rose Poulton. 2. Bill and Ruth Taylor, Herb and Jean Stewart.



One of the nicest things about the 'spiel was Marg Yeo's smile.



"You gotta have heart!" gasps Orin Pritchard as he and his wife Mary sweep furiously to get a lazy rock over the hog line.



Myrie Allen pleased with incoming stone; not so Bill Yeo.



Vern and Isabel Tupling wonder if he can make that narrow port.



Dar and Ad Storey ponder tight situation developing against them.



Rene and Rita Poirier and Noreen and Ron Gauthier wear big smiles as president Dan Kelly presents them with the victors' loot.

The Company

(Continued from Page 3)

pounds in 1962 and the record 372,460,000 pounds in 1961. Included in our deliveries in 1963 were only 2,240,000 pounds of nickel acquired in earlier years by the Company at market prices from the United States Government or its suppliers, compared with 20,310,000 pounds of acquired nickel in 1962, and 48,240,000 pounds in 1961.

Copper deliveries totalled 253,550,000 pounds, compared with 267,280,000 pounds in 1962.

Deliveries of platinum-group metals (platinum, palladium, rhodium, ruthenium and iridium), and of gold were 439,400 troy ounces, compared with 410,800 ounces in 1962.

Net Earnings

Net earnings for the year were \$106,311,000, or \$3.60 per share. These earnings compare with \$94,221,000, or \$3.19 per share in 1962, and \$88,777,000, or \$3.02 per share in 1961. The previous high was \$96,296,000, or \$3.25 per share, in 1956.

Our 1963 earnings benefited from the record deliveries of nickel produced from our own mines and plants, and from the tax savings resulting from the "new mines" exemption from Canadian income tax applicable to earnings derived from our Thompson mine operations and also our Clarabelle mine operations. Our earnings were also favorably affected by increased deliveries of platinum-group metals and of iron ore, but were adversely affected by decreased deliveries of copper.

The "new mines" exemption continues until June 14, 1964 for the Thompson mine and April 30, 1965 for the Clarabelle mine.

Town of Thompson

The town of Thompson continues to grow. At year-end it had a population of 7,900, making it the eighth largest community in Manitoba. Of this population, 5,450 were Company employees and members of their families.

The town now contains 1,400 housing units, with 160 new units under construction. A residence for single men, with accommodations for 86 people, was finished during the year. A third elementary school was completed and opened in September. Business establishments in Thompson at year-end numbered 137, with 33 located in the shopping plaza.

The Provincial authorities continued work on the highway which will connect Thompson with the Manitoba highway system at The Pas. Construction contracts were let for all of the unfinished portions, and completion of the highway is scheduled for the Autumn of 1964.

A measure of the progress at Thompson is the Thompson airstrip, now owned by the Federal Department of Transport and operated by the local government district. The airstrip is to be extended and hard surfaced to permit the use of turbo-prop airplanes.

Shareholders

The number of shareholders of record at December 31, 1963 was 64,178, compared with 63,425 at December 31, 1962.

Employees

At the end of 1963 the Company and its subsidiaries had a total of 26,907 employees, compared with 27,606 at the previous year-end. Personnel were distributed over 15 countries as follows: Canada, 17,549; United Kingdom, 5,561; United States and other countries, 3,797. Of our employees, 3,741 have served for more than 25 years and are members of the Company's Quarter Century Club.

At year-end there were 2,936 former employees and beneficiaries receiving pensions under the Company's Retirement System and other pension plans.

In July 1963, the Company entered into a three-year collective bargaining agreement covering the hourly-paid employees at the Company's mines and plants in Ontario.

Research and Market Development

Expanding the markets for nickel, through the development of new nickel-containing products and the development of new or increased uses for established nickel-containing products, continued in 1963 to be a major part of the Company's activities. This work encompassed a wide variety of research and market development projects.

The maraging steels, which were invented and developed in the Company's laboratories and on which patents have recently been issued or are pending in many countries, continued to attract great interest among steel producers and engineers. About 1,000,000 pounds of nickel were used in 1963 in the production of this new family of steels, which have an exceptional combination of high strength and great toughness and are easy to heat treat and to weld. The Company itself does not produce these steels, the most important of which contains 18 per cent nickel, but promotes their use by industry through granting royalty-free licenses and providing technical information and assistance.

Over a period of years the Company has been conducting a broad study of the effects of nickel on the properties of aluminum base alloys, and manufacturers have been encouraged to test nickel-containing aluminum alloys in certain important fields of application. A number of these alloys show promise and one large chain saw manufacturer has specified cast aluminum pistons containing 3 per cent nickel in a new commercial line of engines.

In many cases the usefulness of a particular alloy is restricted by difficulties in welding it, and part of our research work is devoted to overcoming this problem. During the past year, as a result of International Nickel's development of a new welding wire, the use of a long-known nickel-iron alloy containing 36 per cent nickel was made feasible in an entirely new application — pipelines for the transfer of liquefied gases at extremely low temperatures.

Another research project resulted in the development of an improved "Ni-Hard" nickel-chromium-iron cast alloy with higher strength and superior abrasion and corrosion resistance. A number of foundries are now producing and selling castings of this alloy.

In 1962 wide interest was created in a prototype lightweight nickel stainless steel tank truck embodying a new design concept, which was built under International Nickel sponsorship. This interest advanced to commercial acceptance in 1963, with the result that more than 150 new tank trucks were ordered by fleet owners. Prospects for further expansion of this market appear excellent.

The new world of cordless electric appliances continued to provide a fast-growing market for nickel-cadmium batteries. More than 50 companies are using nickel-cadmium batteries in over 20 different types of electric devices, ranging from toothbrushes to hedge trimmers.

Electroforming of nickel — the formation of an all-nickel product by electroplating nickel on a mold which is subsequently removed — continued to be aggressively promoted for consumer products. This process has the merit of permitting the economical production of articles having complex shape and fine detail. One manufacturer has successfully marketed an electroformed nickel electric coffee percolator, another a line of attractive wall switch plates. In addition, numerous hollow-ware and decorative items were put into experimental production.

To further its research and market development program the Company is enlarging its laboratory facilities in Canada, the United States and the United Kingdom. During the year the Company announced plans to establish a research facility in the Ontario Research Community outside of Toronto. Both process and product research will be undertaken there. In the United States, construction of the Company's new research laboratory in Sterling Forest, near Suffern, New York, went forward and will be completed in 1964. In the United Kingdom, work continued on the enlargement of the research laboratory at Birmingham.

Outlook

We have completed a year in which demand for nickel has improved significantly and earnings for the third consecutive year have increased. Dividends and earnings both were \$10,000,000 above the highest they had been before.

Looking ahead, we see an encouraging buoyancy in the general business outlook in both North America and Europe. We expect the business of our customers generally to be greater and to show improvement in profits. In our own case, we have been able, in the first two months of 1964, substantially to increase our employment and production in Ontario, and demand for our nickel, copper, platinum-group metals and iron ore is stronger than it was in the corresponding period a year ago.

The industry's current nickel production capacity is large enough to handle the increasing requirements of nickel users as well as surges in demand. But nickel consumption throughout the free world is now more than double what it averaged during the five peacetime years following World War II. Our objective is to sustain and accelerate this growth rate. Accordingly, we are continuing both the development of our exist-

ing production resources and our search in Canada and world-wide for new nickel deposits. We have accentuated our market development and research activities, confident that we will be able to draw on our long-accumulated capabilities to provide effective assistance and service to nickel users and to advance their and our business opportunities.

We think that in 1964 the consumption of nickel throughout the world will rise to a new high. We expect to share in this improvement. The prospects are good furthermore that we will have exported from Canada more of our metals than in 1963, with consequent strengthening of Canada's balance of payments.

In short, the deliveries of nickel and of all our other principal metals should be up in 1964. Barring unforeseen developments that would adversely affect industry generally, International Nickel should have another year of fine results.

Art Vaillancourt

Art Vaillancourt has retired on disability pension after working on the roasters at Copper Cliff for 30 years. "I miss the gang," Art said, "and the days are sure long when you don't go to work." He is presently lining up a few repair jobs on his home in New Sudbury and hopes this summer to spend much of his time outdoors.

Art was born in Copper Cliff in 1915 and started work at an early age. "I helped Dominion Bridge erect the steel for the smelter at



Mr. and Mrs. Vaillancourt

Copper Cliff when I was only 14," reminisced this new pensioner. "and later I helped the Custodians put up the Orford stack. Starting from the ground up I didn't mind the height," smiled Art, "but the following year when I had to go back up to help uncap it, I was scared."

During the early depression years Art was among the unemployed but in 1933 he finally got a job at the smelter.

Jeanne Gagnon became Mrs. Art Vaillancourt in 1935 and they have two sons, Arthur in the Soo and Richard in Sudbury, and a daughter Gloria who married Barney Barant of Levack; they have two grandsons. Very fond of children, the Vaillancourts are now in the process of adopting 5-year old David into their family.

Art is a member of a well-known Vaillancourt family and has five brothers, some prominent in baseball circles a decade ago.