

INCO TRIANGLE

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Girl Guide Dorothy Klein

(Story on Page 6)



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D. M. Dunbar, Editor
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Inco's Activities Had Outstanding Success in 1959

In 1959 Inco delivered 317,040,000 pounds of nickel — a record.

At the end of the year the Company and its subsidiaries had 28,195 employees, also a record. The geographical distribution was: Canada, 19,161; United Kingdom, 4,980; United States and other countries, 4,054.

Approximately 2,750 of the employees have been in the service of the Company for 25 years or longer.

The number of shareholders at the year-end was 63,812.

Inco copper deliveries were also impressive last year, reaching 252,450,000 pounds compared with the postwar high of 280,810,000 in 1957. Iron ore deliveries, 162,000 long tons, were more than 30 per cent above those for 1958. Deliveries of the platinum metals were the second highest for any year.

Capital Expenditures

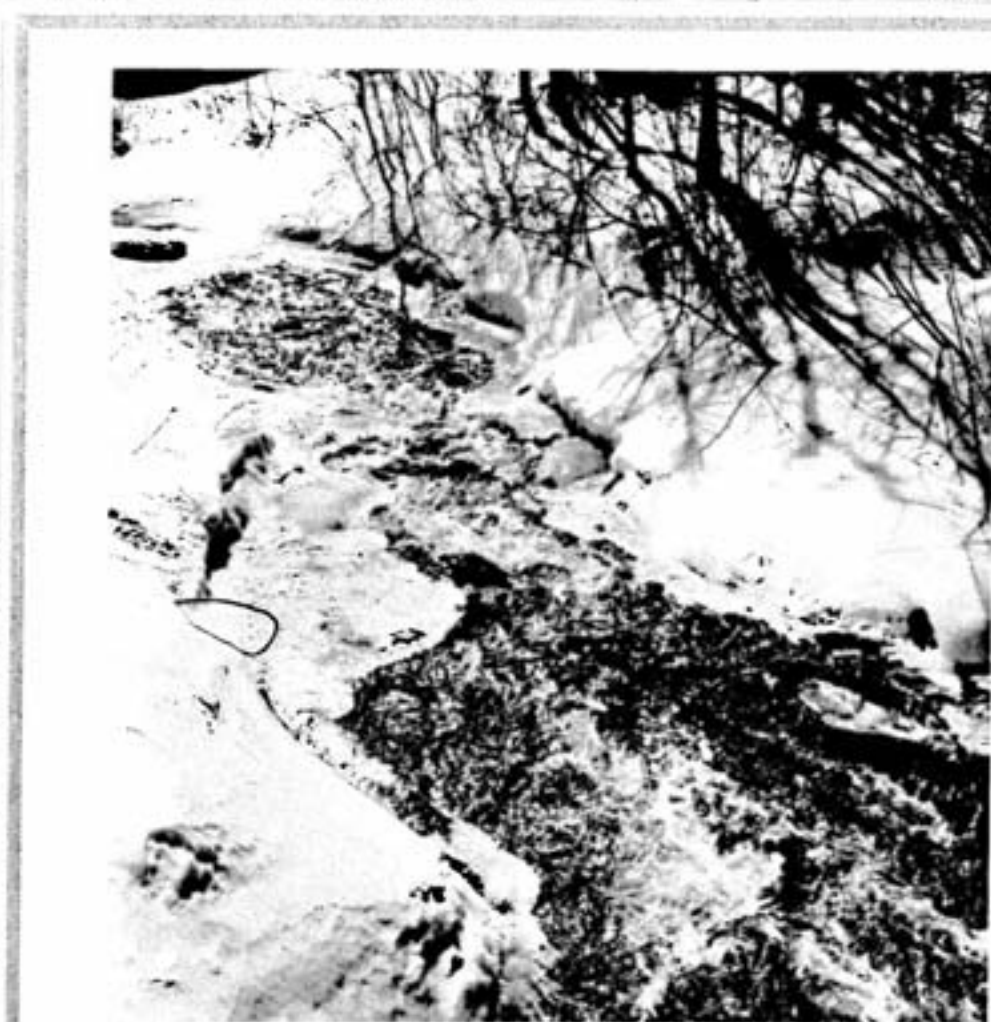
Other Inco vital statistics contained in the annual report issued by the chairman, Dr. John F. Thompson, and the president, Henry S. Wingate, included the total of the capital expenditures for 1959, \$46,902,000, which compared with \$55,444,000 in 1958. The 1960 capital expenditures were estimated at upwards of \$70,000,000.

In Manitoba in 1959, \$46,203,000 was expended for mine shafts and development, the smelter, refinery and other facilities. The Company also spent \$3,400,000 on its Sudbury underground mine development; \$7,466,000 in smelting, refining and pilot plants at Copper Cliff, Port Colborne and Clydach; and \$8,327,000 for improvements and expansion of its rolling mills in the United Kingdom and the United States. The balance was spent for capital items at other properties.

Underground development in Inco's operating mines in 1959 totalled 66,000 feet, bringing the cumulative total to about 450 miles.

Total ore mined during the last half of 1959 was at the rate of 16,500,000 tons per year.

Ore shipments were resumed in January 1959 from the Murray mine, where operations had been suspended in July 1958. The Crean Hill mine development and underground construction program, suspended in February 1958, was resumed in August 1959. Also in 1959, a new and improved method of mining continued under active development for areas in mines where difficult ground conditions are encountered. This method, using hydraulic sand fill, gives promise of more efficient mining and of improved working conditions in such areas.



“... can Spring be far behind?”

Proven ore reserves stood at 264,864,000 short tons at the end of 1959, compared with 264,628,000 at the end of 1958, not including Manitoba ore.

Plant and Process Improvements

In addition to building the new plants for the processing of the ore from the Thompson mine in Manitoba, the Company is continually improving its plants in Ontario and the United Kingdom. It is also actively continuing process research to improve the efficiency of our operations, and new or modified processes capable of dealing with different types of ores are under study in several pilot plants.

Following long-term study, the Company's research staff has developed an improved fluid-bed process for roasting nickel sulphide. At year-end, construction had begun on a \$5,000,000 plant at Copper Cliff which will utilize the new method and will largely replace existing sintering facilities.

Other developments in the Sudbury district included completion of the new Levack mill, which went into operation June 1; completion of a new 375-foot chimney and a pumping station for the Coniston smelter; and completion of a natural gas distribution system serving some of the Copper Cliff operations.

In the United Kingdom, a new technique was developed at the Clydach refinery which will permit a substantial increase in the output of nickel pellets. Plant additions were made at the Acton refinery to increase the capacity for refining platinum metals.

Exploration

The development of ever higher demand for nickel depends on the assurance of constantly increasing supplies of the metal. Toward this end, the Company is continuing its active search for new nickel deposits. Exploration expenditures amounted to \$7,989,000 in 1959, compared with \$7,396,000 in the preceding year.

Manitoba exploration continued to account for about one-half of the total. In the Sudbury district the systematic investigation, both surface and underground, of favorable geological locations and the extensions of ore zones was continued with satisfactory results.

The examination of nickel occurrences and the exploration of ore possibilities were also carried out in northern Ontario, Saskatchewan and the Northwest Territories of Canada; and in Africa, Australia, New Caledonia and the United States.

Market Development

Restoration of consumer confidence in the future of nickel sup-

ply, an essential to the development of markets for nickel, was in large measure achieved in 1959.

Throughout the year, the Company sought to strengthen nickel's competitive position by recapturing markets lost to substitute materials and by expanding existing markets. Promotional campaigns were carried on by the Company to increase the sale of nickel-containing products manufactured by others.

The Company's product research activities ranged over a wide field looking toward the development of new products containing nickel and of new applications for existing nickel-containing products. Exemplifying the results of this work, a new series of very high strength nickel alloy steels containing 20 to 30 per cent nickel was developed in the Company's research laboratories and was announced during the past year. These new steels have overall characteristics that promise for them, when available commercially, a wide range of uses, from small machine parts to large pressure vessels and other heavy equipment.

Along with several other major copper producers, International Nickel participated in the formation of the Copper Products Development Association to expand existing markets and to find new

(Continued on Page 7)



Our Port Colborne refinery family this month makes an attractive group: Mr. and Mrs. Paul Radzikowski with Karen, 5, Allan, 9 months, and David, 6. Paul is an ironworker and plays first base in the softball league.



A thickener man in the separation department at Copper Cliff smelter, John Jarus is proud of his three young sons. Here they are with their happy parents: Wayne, 8, Brian, 6, and Norman, 2½. John was raised at Whitefish.

INCO FAMILY ALBUM



Creighton raise driller Vincent Lotzler is shown with his family in their new home in Arilda. The children are Denis, 8, Joanne, 3, and Linda, 3 months.



Mr. and Mrs. George Sleeman of Val Caron with Debbie, 4, Patricia, 8 and Mary-Ellen, 1. George, who came from England, is a slope leader at Frood.

Representing Coniston in this month's Album are Sam Chys and his young family. Michael is 7 and Lillian 2. Sam has worked at Coniston for over 25 years.



Here are George Zito of the Copper Refinery with his wife, daughter Immacolata, 12, and son Joseph, 9. George is a great gardener and his wife is noted for her needle-work skill.



At Thompson Mrs. Harold Heale has an attentive audience for her bedtime story. The boys are Robert, 7, Douglas, 6, and Johnny, 4. Their dad is storekeeper at Inco's new Thompson plant, and they formerly lived in Copper Cliff.

Friendly Hockey Match Brings Out Strange Assortment at Creighton



Coach Wilf Rochefort calls for a little more oomph from his players during a between-periods huddle. Rugged Ray Wheaton kneeling in foreground took the advice too literally and was the only man tabbed with a penalty. From left to right the players are Gord Bennett, Nels Crowder, Art Marson, Harry Narasnek, Jim Byrnes, Doug Anderson and, at front right, Art Carbone who was the big scorer.

A casual argument in the dry between two non-skating, red-hot Montreal Canadiens fans, a loosely tossed challenge, plus torrents of enthusiasm produced a hockey game that is still a topic of friendly disagreement around Creighton.

With the challenge enthusiastically accepted, Wilf Rochefort and Eric Ashick as the original debaters were named coaches, and with Lyall McGinn providing the organization things quickly jelled.

Played at Lively on a bright Sunday afternoon the match brought into action the outstanding hockey ex-"greats" from the staff at Creighton's 3, 5 and 7 shafts. Such old campaigners as Joe Mulligan, Harry Narasnek and Walter Sanderson rubbed rust from skates, borrowed junior's hockey stick, laid in a supply of liniment and went at it with great vigour.

According to Lyall McGinn most of the players enrolled the following Tuesday in the Ache and Arnica Club. However all agreed

it was a great do and the later rematch at Stanley Stadium was equally successful. Only serious misfortune of the day was a meeting between Bob Freeman's head and Bob Gorman's teeth.

Rochefort's more experienced squad took the opening game by a 5 to 3 score with Art Carbone getting four goals. Three stars for the day were Carbone, Joe Mulligan, and goalie Alf Maskell who stopped 39 of the 35 shots peppered at him. Wilf Digby and Gene Donnelly officiated on the ice with Norm Silverman acting as scorekeeper, timekeeper and big-league scout.

Nickel in Gas Turbines

Transition sections of gas turbines, which channel hot gases to the turbine blades, are often made of Inconel nickel-chromium alloy because it resists oxidation, corrosion and loss of strength at elevated temperatures.



"Spearing", said coach Eric Ashick, "is taboo, but in case you are interested, this is the way it's done." While they lost the game Eric's stalwarts speared no one and gave a good account of themselves. Bob Freeman is sitting on the boards and to Eric's left are goalie Alf Maskell, Walter Sanderson, Lyall McGinn, Fern Roberts, Bob Gorman, Harvey Bangle, Lee Ingraham and Grant Villeneuve.



"He shoots — he sco-o-o-ores!" Goal judge Fred Piehl's upraised arm tells the tale. The goalie is Alf Maskell, and in the left foreground is the marksman, Max Matte.

Win Copper Cliff Club Bowling Trophy



Winners in the Copper Cliff Club ladies' 5-pin bowling league were this foursome seen receiving the coveted Rosemary Owens trophy from the club steward, Cecil Bissonnette: Mrs. M. Finlayson (captain), Mrs. T. Crowther, Mrs. M. Kostash and Miss R. Doherty. The team captained by Mrs. G. Montgomery was runners-up.

John Visentin

"I'd like to work another 25 years in the blacksmith shop," grinned John Visentin. "I like making things out of metal and Coniston is a good place to work." He should know as he spent almost 39 years there.

Retired now on service pension he lives comfortably in Coniston with his wife.

John started at Coniston back in 1921 the year after he arrived in Canada, and after a spell in the yard moved into the blacksmith shop and never left that work. "One of the best," commented Gordon Adams, "a man you could always depend on."

Born on a farm in Italy in 1896 John had served four years in the army as a young man.

He was married to Rina Simeoni



John and Mrs. Visentin

just before leaving for Canada. They have one son Rino of the Coniston carpenter shop and a daughter, married to Mel Orendorff of Coniston. Their five grandchildren give John a great deal of pleasure.



This is the winning Creighton first aid team in action. Tending the badly injured man in the foreground are Kurt Fuerniss and Ed Stewart, while Heinz Kittle looks after the second victim in the background. Fourth member of the squad was Joe Piering. Judges were Dr. McGruther and Dr. Robideau and the "victims" Ray Pearson and Ernie Wunsch.

First Aiders Ready for April Trophy Competitions

"You four men are on a hike in the country. While walking down a farm road a car passes at excessive speed. When you turn a corner in the road you see the wreck of that car in the ditch. There is a first aid post in a farm house 50 yards away where you may obtain equipment and use the phone!"

That was the problem confronting four Creighton mine first aid teams in their recent elimination competition held at the Employees Club.

One patient, the driver, was in pretty bad shape. He had a fractured skull with arterial haemorrhage, fractured lower right leg, severe lacerations right forearm with arterial haemorrhage, and shock. The other had both femurs fractured and was also suffering from shock.

The goal was to diagnose, treat and protect these injuries within a 30-minute time allowance. The team captained by Kurt Fuerniss was judged the winner.

During the past month each Inco plant and mine in the Sudbury district has held a similar first aid elimination contest.

The four top surface plant teams will battle it out for the D. Finlayson trophy at the Sudbury Inco Club auditorium on April 5, and the victorious teams from the five mines will vie for the H. J. Mutz trophy at the same location on April 7.

The winners of these two contests will then settle down for some real concentrated drilling preparatory to competing for the Inco inter-plant first aid championship

and the R. D. Parker shield. This event is to be held in the main auditorium of the Inco Club at Sudbury on April 21, commencing at 8.00 p.m.

PUTTING IT POLITELY

Civilizations are measured in many ways. One is by the height of their heroes. We might keep that in mind whenever we find ourselves falling for the grin, the studied bad grammar, the Good Guy approach, the fishin' pole and the freckles.—Clifton Fadinian.

Natale Galasso

Working at Inco was a picnic compared to the brickyard where he worked as a youngster, Nat Galasso told the Triangle. "I started working before I was 12 years old and we worked from dark to dark, and that was in summer."

Retired now on service pension he spent the past 20 years at Hill station on the tailings line. Previously he worked in the mill and the old Orford department.



Mr. and Mrs. Galasso

Nat was discharged in Libya after five years in the Italian army during the World War I. Before coming to Canada in 1926 he had worked in Roumania and farmed in his native Italy.

He started with Inco at Coniston in 1927, and also worked for a year at Garson.

Born in 1894 he married Catharina Picco in 1921. Their family are Mary, wife of the Copper Refinery's Joe Scinto, sons Leo and Dominic of Toronto and Carlo of Sudbury, and seven grandchildren.

Nat has lived in the Gatchell for well over 20 years and recently built himself a fine new brick home there.

Receive AIME Award at New York Meeting



The paper "Direct Electrorefining of Nickel Matte" won the 1960 extractive metallurgy award of the American Institute of Mining, Metallurgical and Petroleum Engineers for its authors, L. S. Rensoni, the late R. C. McQuire, and W. Vernon Barker. Picture shows Mrs. McQuire, whose husband was manager of Inco's nickel refining division at Port Colborne, accepting a certificate from Howard C. Pyle, president of the AIME, at the recent annual meeting of the Institute in New York. On her left are Mr. Rensoni, manager of process research (Canada) for Inco, and Mr. Barker, chief research chemist of the nickel refining division. The paper was presented at the 1958 AIME meeting by Mr. Rensoni. The award consisted of a gold medal and certificate for each of the three authors.

Popular Nurses in New Manitoba Town



Three very popular young ladies at Thompson (for obvious reasons) are the nurses at the temporary hospital, Elizabeth McCordle, Mary Mulhall, and June Scott. Miss Scott is a former member of the Copper Cliff Hospital staff. Thompson's new 36-bed hospital, of stainless steel curtain wall design, is scheduled for completion in June.



The stalking game is always popular.



Inspection keeps a patrol on its toes.



There's a knack to making a bedroll.

Girl Guides Are Celebrating Their Golden Jubilee Year

Completing a full half-century of fine character building, 1960 is Guiding's Golden Jubilee Year, and Girl Guide companies all across Canada are joining in the celebration.

To mark the occasion a special Canadian five-cent stamp has been issued bearing the Girl Guide emblem.

Guide companies themselves have sown a golden path across the land in the form of nearly one million golden tulips, planted last fall at nearly all locations where Guides meet. Formal recognition of this unique undertaking will be made later when the first tulips bloom.

The first Girl Guide company in Canada was formed at St. Cath-

erines in 1910, only a short time after the movement had been founded by Agnes Baden-Powell, sister of the founder of the Boy Scouts. The Brownies, formerly called "Rosebuds," were formed in 1913.

Mrs. D. Forster, long a dedicated Guide worker in the Sudbury district, was associated with that early group at St. Catharines, and Dr. Helen Wilson of Toronto, mother of Inco's Dr. B. M. Wilson, was a member of the first company.

Today Guides are active in many countries of the world and the Guide credo, to build better citizens, with all that this implies, is an integral and recognized force in community life.

Camping is a feature of the

BELOW: left, cooking with "Buddy Burners" produces surprisingly good results; right, practising how to spell off in artificial respiration.



Triangle Camera Snaps 2nd Lockerby Leaders



LEFT: Margaret Rose, pretty patrol leader with 2nd Lockerby Girl Guide company, has been chosen to attend the Guide Jubilee camp in British Columbia. **RIGHT:** Captain of 2nd Lockerby Guides, Mrs. Vera Rose is seen discussing a training program with her company leader, Lorna Patterson.

Golden Jubilee Year program, and special Jubilee camps are being set up in each Canadian province. Here carefully selected guides will spend two weeks camping plus another two weeks enjoying the hospitality of the area. Each camp will accommodate two Guides from each province plus two from Great Britain.

The Sudbury division has the distinction of having two of its Guides numbered among the 22 chosen from Ontario to attend Jubilee camps. This is a high average and reflects very creditably on the calibre of Guiding in the district. The two lucky Guides are Margaret Rose of 2nd Lockerby company and Dorothy Klein of 4th Minnow Lake company. Margaret will attend the camp in British Columbia and Dorothy, who recently received her Gold Cord, will go to New Brunswick.

Daughter of Henry Klein, long-time Frood miner, Dorothy appears on the front cover of this issue of the Triangle, a lovely young lady truly representative of Canada's Girl Guides.

In keeping with the Jubilee Year camping theme, 2nd Lockerby Girl Guide company recently spent one of their regular meetings reviewing and practising some of their camp crafts. The Triangle camera was there that evening and snapped a few of their activities as captain Mrs. Vera Rose kept things organized and moving briskly.

A busy company is 2nd Lockerby, with a full quota of six patrols of six girls each. The fine auditorium of McLeod road public school is their regular meeting place and with excellent leadership their training program is tops.

THE PICTURES

CENTRE: Making beds is a snap for girls, and at making up a camp bedroll they are equally adept, as demonstrated here by Elaine Blue-man and Rona Knight. On the right is patrol leader Elisabeth Munsterhjelm, standing is Oisela Engler and watching are Denise Connelly, Janice Kett and Margaret Quinn.

TOP RIGHT: Regular inspections, as in the army, help keep the Guides smart and neat in appearance. Patrol leader Margaret Gillespie is seen checking her patrol of Margaret Burgess, Elaine Blue-man, Patsy Rose and Susan Reeves.

LOWER RIGHT: Among the Guides' many accomplishments is their ability to apply artificial respiration. The Holger-Nielsen method is demonstrated here with Joel Sloat and Dorothy Lachance practising how to spell off. Patrol leader Betty Ann Garrow is conducting the drill, the "victim" is Dawn Lang, and observers are Brenda Burgess and Jean Dube.

LOWER LEFT: Cooking a meal indoors or where no wood is avail-

able is a craft for these Guides with their "Buddy Burners." A rather primitive but most effective fire, it consists of an old coffee can filled with wax in which a section of egg carton has been set. This is the wick and gives off such heat that pancakes and coffee were actually prepared by this patrol in short order. From the left are Lorraine Baker, Ina Petrovsky, Kathy Wolchuk, Sheryl Carmichael (leader) and Cathy McIlroy.

TOP LEFT: The stalking game is one of the many ways of combining training with fun. This usually gets an evening away to a good start. Girls with backs to camera are blindfolded and attempt to detect any sound or movement from the stalkers.

Inco's Activities

(Continued from Page 2)

markets for copper and copper-containing alloys.

The Company also participated actively in the development of markets for other of the products recovered from its ores, including platinum metals, cobalt, selenium and tellurium.

Outlook

Dr. Thompson and Mr. Wingate concluded their report as follows: "Our nickel deliveries during the last part of 1959 and the early

months of 1960 have been extraordinarily high and at a rate greater than our production. This high demand, while based in part on our market development programs, has been caused primarily by rising industrial activity throughout the world and by purchases by industry beyond immediate consumption needs in preparation for future contingencies, including the possible consequences of political disturbances affecting nickel producers in Cuba.

"In 1961, when our Manitoba project comes into operation, the nickel production capacity of free world producers outside of Cuba will exceed the anticipated nickel consumption for that year. As for the present year, the United States Government has stocks of surplus nickel, stated by Government officials to be in excess of strategic requirements, more than sufficient to offset any curtailment of supplies from Cuban production in 1960. The supply of nickel is therefore plentiful.

"The outlook for 1960 is for continued capacity production at our mines, smelters and refiners. The Company will continue most actively its programs for market development and research on new and expanded uses of nickel. If the present high level of industrial activity continues, we look forward to recording another very satisfactory year."

Long-Time Tapper Harry Smith Retires on Early Service Pension



Harry Smith is pictured here beside No. 1 furnace after working his last shift before retirement. Many of his old gang gathered around to say farewell and on their behalf Larry Melleur presented Harry with a well-filled wallet and a box of candy for Mrs. Smith. Shift boss Herbie Eastwood is shaking hands with Harry while Russ Chambers and Ray Forth stand by to add their best wishes.

Tapper on No. 1 reverberatory furnace at Copper Cliff smelter for almost 15 years. Harry Smith has taken an early service pension and retired to his country home at Whitefish to fill out his life with gardening, fishing and hunting. His total time with Inco was 37 years.

Harry was born in Waters Township. His father, Paddy Smith, was an Inco brakeman who later

joined the Grand Trunk Railway and was killed in an accident at Parry Sound.

Before joining Inco Harry worked for the British American Nickel Co., where his shift boss was Dick Oll.

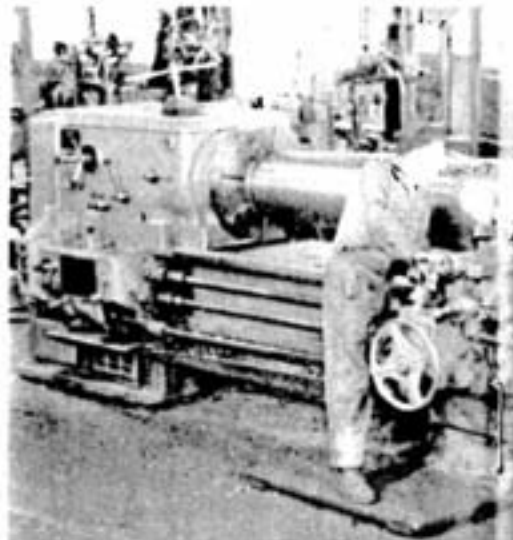
Elsie Stubbington of Copper Cliff became Harry's wife in 1924. Of their family, Robert works at

Copper Cliff. Stephen is at home. Shirley lives in the Soo and Dulcie is Mrs. Ferdie Franks of Gatchell.

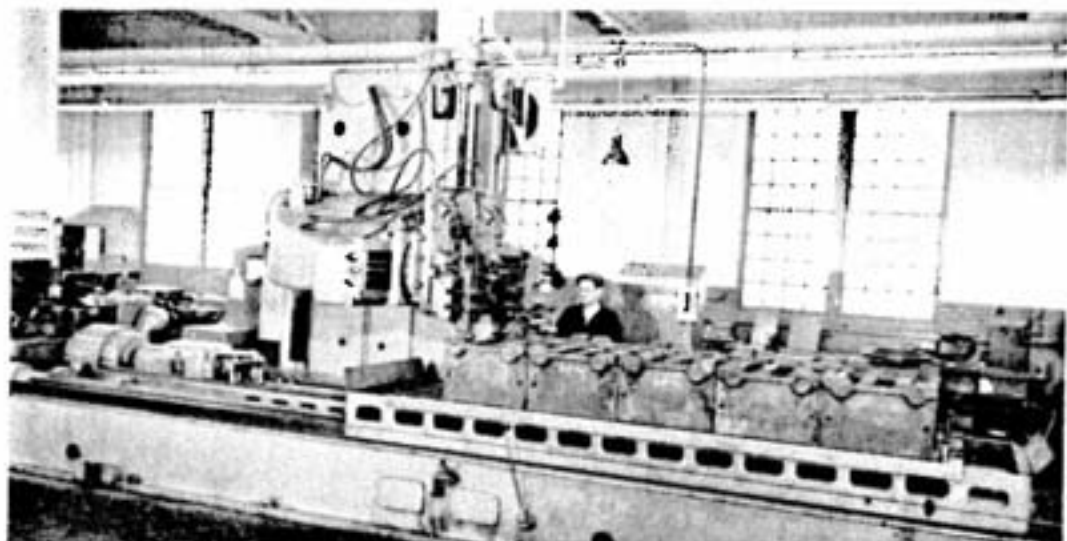
They have five grandchildren. To celebrate his retirement Harry and Mrs. Smith are planning a trip this year to the Calgary Stampede, and they'll also visit relatives in Edmonton, but apart from that they'll stay close to their Whitefish home.



One of the biggest jobs ever handled in the machine shop was making a new shaft for a standard Symons crusher out of an old jaw crusher shaft. In the first stage of the operation Alan Butler is seen doing the rough cutting of the old shaft on his 36-inch American lathe.



Here the new shaft is receiving the final touches on measures 9 feet 10½ inches in length, with a diam press where it meets up with the crusher mantle.



This modern Rockford hydraulic planer can handle any planing job encountered at the Copper Cliff works. Five sinter machine pallets are being simultaneously faced from rough castings in the photograph. Aaro Mikkola keeps a close watch on the operation.

Tremendous Range Handled by Machine Shop

At Copper Cliff the machine shop takes in its stride the impressive assignment of making major mechanical repairs to the equipment in the huge milling, smelting, and iron ore recovery plants. It also handles various types of work for other Inco plants in the Sudbury district.

The deceptive ease and efficiency with which its activities are carried on is often inclined to play down the size and scope of the machine shop's achievements. Actually over the years it has earned a reputation for skill, ingenuity, and high-class workmanship that reaches far beyond the borders of its own bailiwick.

A fascinating reservoir of how

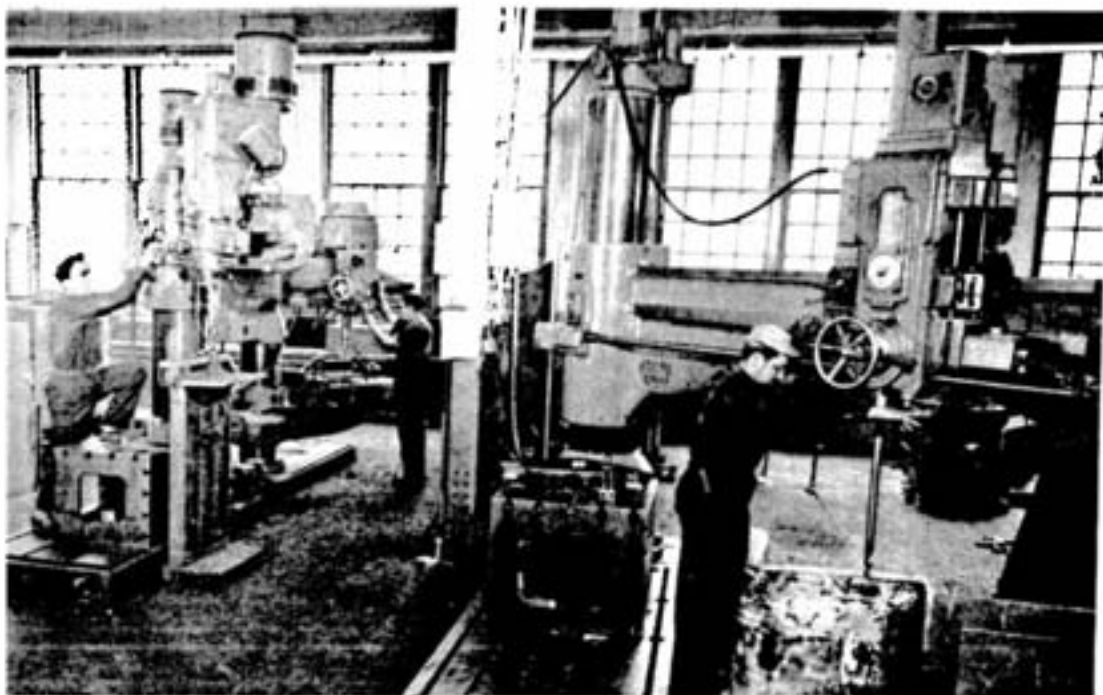
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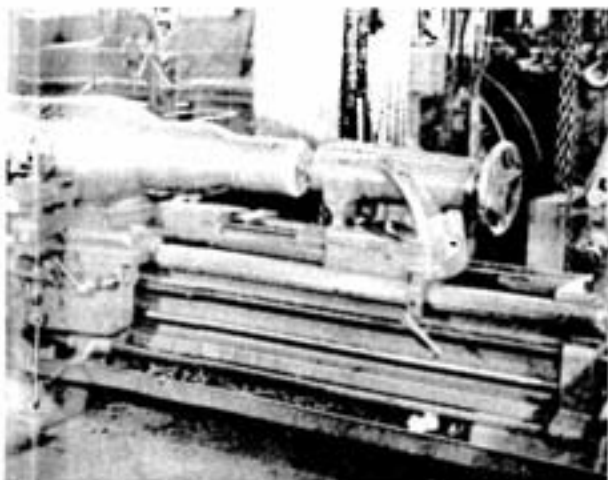
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The mea with How built chine



LEFT: Here are the shop's three radial drill is drilling axle holes in a sinter machine Maschio with his 8-foot drill drilling holes in son, and in the centre Bob Meikle is ream addition to drilling on table, floor or pit tolerances may be done on these machines in the spindle. ABOVE: Art McGinn is at No. 5 Cincinnati milling machine. The size plus two smaller ones and between the and pinion cutting, key seating, slotting wor





On a 28-inch lathe operated by Charlie Baxter. It now has a diameter running from 15½ to 13½ inches. Its next stop is the press.

Range of Work Machine Shop

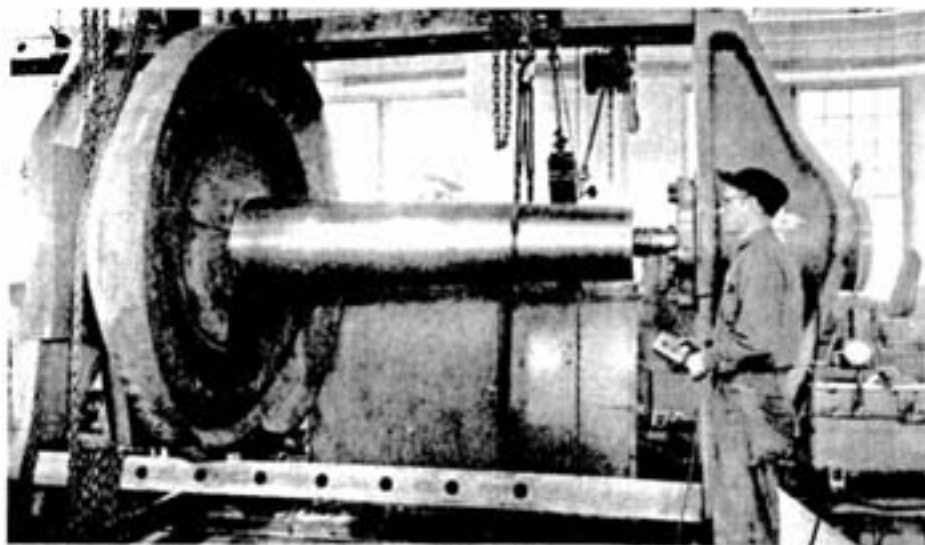
And know-how, the Copper Cliff machine shop has a total of no less than 77 machines spread over 29,000 square feet of floor space.

In addition to handling an endless variety of routine mechanical repair work, the shop's personnel also delight in tackling any special job that presents a challenge. As a typical example, recently one of the great Marcy mill ring-gears either had to have a face-lifting and new teeth, or be replaced.

This was a really big job, the gear measuring over 11 feet in diameter with 150 teeth in its 16-inch face. However, after the welders had built up the worn areas the machine shop boys went to work on (Continued on Page 10)



drills. On the left Ken Odaiskey is shown cutting a gear on his lathe. On the right Tony Odaiskey is shown in a slag launder for Thompson's holes in a drill jig. In a pit, precision boring to close tolerances by installing a boring bar is shown cutting a gear on his lathe. The shop boasts two machines this size and they handle all the gear work, etc.



In this final operation the shaft and the mantle are being mated in what is called a press fit. The shaft was cut a few thousandths of an inch larger than the opening in the mantle and as the 400-ton Rogers press forces the shaft into the opening it makes an absolutely rigid fit. It will be noted that to accommodate the mantle on the press a section had to be cut from it which was welded back when the shaft was in place. Operating the press is Dino Miatello.



This group of seven lathes occupies one bay of the machine shop and handles a great variety of work. They turn shafts, make bushing, pinion and sprocket blanks, crusher adjusting bolts and do screw cutting on valve stems. Operating the machines from front to back are Stan Bryson, Wes Blueman, George Renaud, Owen O'Reilly, Graham Denmark, Roly Veccka and Harry O'Connell. There are 32 lathes in the shop.



This Do-All hydraulic 12-inch cutoff saw is "Handy as a can opener to a new bride," as Lloyd King put it. Capable of cutting any metal up to 12 inches square or round, it is one of the busiest machines in the shop. Saverio Bussolero is seen splitting a deadeye bearing used in the coal plant.

Tremendous Range

(Continued from Page 9)

it. Adapting an old planer they made a special setup, equipped it with a rotary cutter they themselves devised, then machined that ring just like an everyday assignment.

It was the first time they had undertaken the rebuilding of one of these massive gears, and the boys were quite pleased with the result, averting as it did a costly replacement.

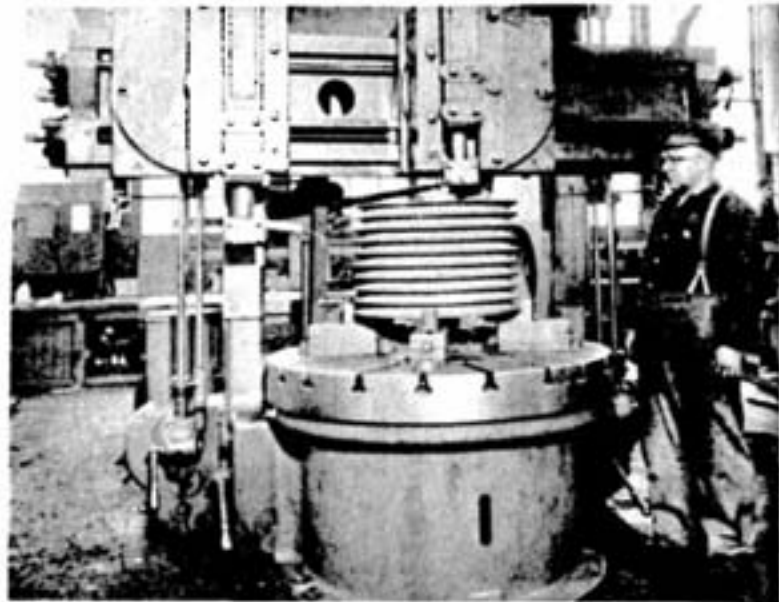
Machining rough castings to finished parts, turning and fitting the countless shafts, bushings, gears and bearings in use at the plants; drilling, boring, milling, and planing any number of parts; turning rolling stock wheels; these

are a few of the many jobs "on the go" daily in the machine shop.

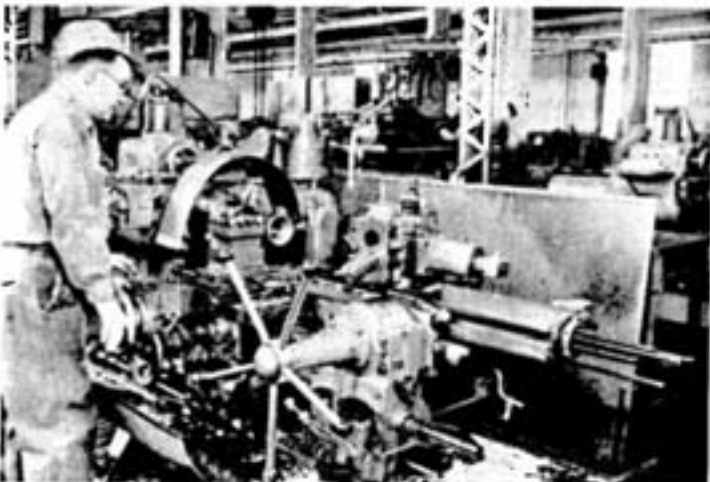
A seemingly endless procession of work passes in and out. Pallets for the sinter machines, centrifuges from the separation department, pumps and conveyor idlers from the mill, master gears for the roasters, iron ore plant pallets and speed reducers, heavy crusher machinery for the mines, crane rails and launders for Thompson, power plant water wheels, these and numberless other items are handled with smooth despatch by the machine shop organization.

Few jobs are too small and fewer too large to be accommodated. In size the work ranges from machining tiny parts for laboratory plating machines through gears, pinions, bushings, and castings to great shafts and eccentrics.

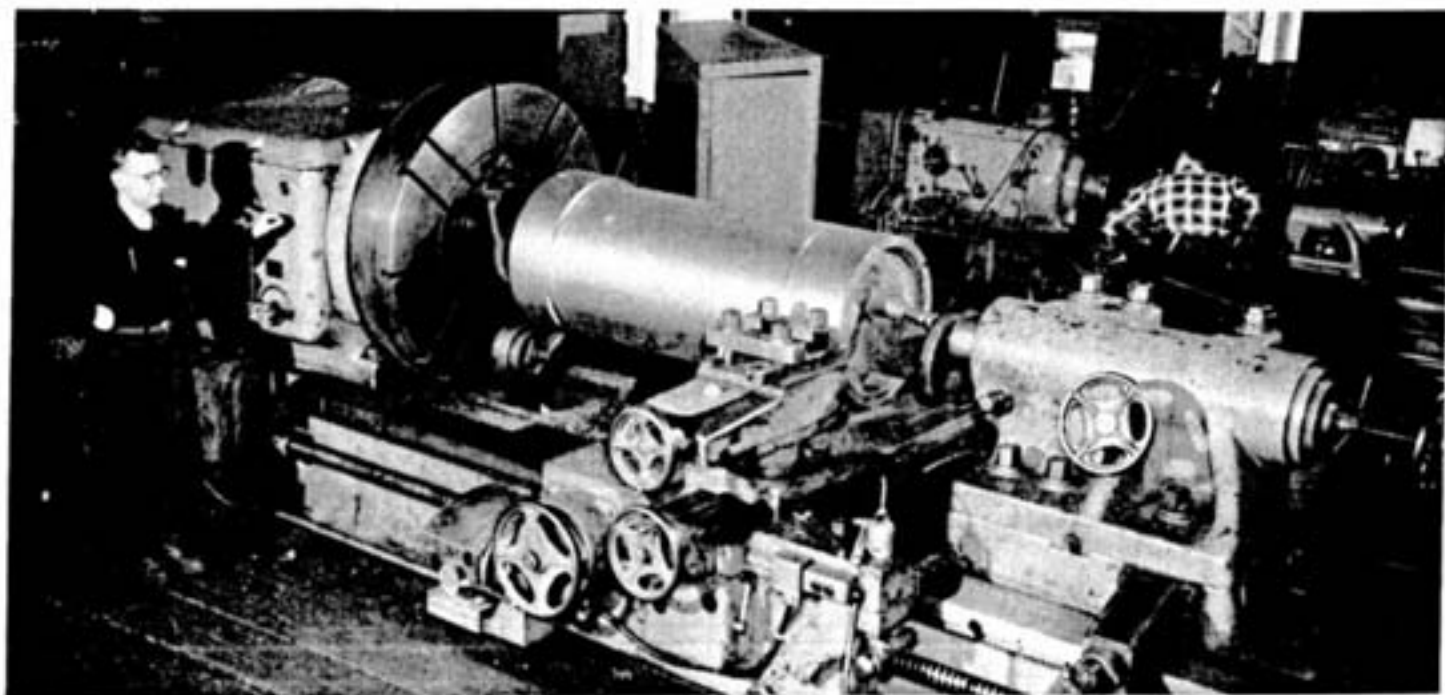
BELOW: Largest in the shop is this 48-inch lathe Walter Jordan is operating. Lathe size is calculated by the swing of the chuck, which determines the maximum diameter of the material that can be turned. A Symons crusher cast iron eccentric is being machined here from a rough casting. Locomotive and car wheels, crusher brasses and large pulleys are among other big jobs handled on this machine.



One of two operating in the shop, this 4-foot King boring mill is preparing a Creighton mine V-belt pulley for rebushing. Car wheels, Symons crusher locking nuts and pulleys are all a part of this machine's regular diet. Arnie Leppinen is the operator.



Cliff Avery is operating one of the turret lathes which are used almost exclusively on repetitive jobs. It can perform 10 different operations, once a setup has been made, by simply turning the turrets. Pump sleeves are being made in the picture. Other products of the turret lathes are pan conveyor bushings, rabble arm pins, coupling bolts and crane diaphragm bolts, to name but a few.



William Zugic

A rockhouse and underground crusherman for almost 25 years, Bill Zugic has retired on service pension. He started with Inco back in 1935, working first in the stopes at Frood and then moving to the mechanical department on the crushers the following year. Bill went to Stobie when things started humming there and he remained at that location until retirement. "I worked a long time for Rube Cook," Bill said, "and he was a good boss to work for."



Mr. and Mrs. Zugic

Born 65 years ago on a farm in what was then Croatia Bill served four years in the first war, three of them as prisoner of war in Russia.

After the war Bill farmed until

coming to Canada in 1926. He worked on the construction of the Welland canal for five years, returned to the old country, then came to Canada again in 1934. He worked for a time on highway construction before joining Inco in 1935.

In 1913 Bill married Emily Stubijski and their four sons and three daughters have all remained in the old country. "They are all married but we only have eight grandchildren," was Bill's smiling complaint.

With his home in the Donovan to care for plus gardening in summer and walking in winter, Bill expects to spend a very pleasant retirement.

Paavo Ruohonen

Another Frood old-timer to retire on pension is Paavo Ruohonen. Starting at Creighton in 1924, he left in 1929 to join Fraser-Brace and, among other jobs, helped with the building of the Copper Refinery. Before rejoining Inco at Frood in 1933 he also worked for some time on the Finnish newspaper Vapaus Sana, which he helped found.

Born on a farm in Finland at the turn of the century, he spent two years in agricultural college there before coming to Canada in 1924.

Since going to Frood in 1933

18 Rinks in Geological Bouspiel



A total of 18 rinks, biggest entry yet, made the fifth annual geological department bouspiel at the Copper Cliff Curling Club a resounding success. Picture shows Jud Snell, left, public relations manager of Midwest Diamond Drilling, presenting his firm's trophy and congratulating the winners of the first event, Tommy Turgeon, Karl McIntosh (skip), and Gus Leask; fourth man on the team was Hector Charette. The spiel's second event was won by Ron Lake (skip), Larry Arsenault, Bill Johnson, and Jack Twa.



Paavo and Mrs. Ruohonen

Paavo has worked in stopes and pillars in most of the square set areas of that mine and was working on the 1400 level at the time of his retirement.

The year he came to Canada he married Katina Salminen and they have lived in the same house in the Donovan for over 32 years. For most of those years Paavo has been helping his countrymen arrange their trips back to Finland, acting as their travel agent. He hopes to devote more time to this interesting work now that he is retired. Paavo has been back home twice and is considering 1961 for a third trip.

A summer camp at Lake Penage, complete with immaculate steamboat, will see more of the Ruohonens this summer and Paavo is anticipating many more pleasure dividends from this second home in his new-found leisure.

Frank Marolt

Frank Marolt, well known Creighton miner with 30 years' service, has retired on disability pension and is now learning to enjoy this new leisure.

Frank came first to the Sudbury district in 1927, the year he arrived in Canada from his native Yugoslavia, and landed a job at Levack. Quitting the following year he tried mining at Kirkland Lake, then returned to Sudbury and hired on at Creighton in 1929.

Frank worked at Creighton's 3,

4, 5 and 6 shafts as a miner and trimmer boss. The last few years he has been a powderman on 68 level, 6 shaft.

Frank was born in Yugoslavia in 1902, and his first job was in his father's bar which he recalled was pleasant and quiet by today's standards. Coming to Canada he went first to Winnipeg, then Toronto, before realizing the north was the place to be. "And I've never been sorry," he said.

In 1933 Frank married Mrs. Male. They live in a very comfortable home in Gatchell with their two children, Brenda 10 and Jack 9.



Mr. and Mrs. Marolt

Frequent visits from other old timers pass many pleasant hours for Frank as they stoke up the fires of memory.

Hot or Cold Alloy

Unlike some materials which become brittle at low temperatures, Inconel nickel-chromium alloy stays tough at sub-zero temperatures. It also retains its useful strength at elevated temperatures — up to 2,000 degrees Fahrenheit.

NOT IN VAIN

«O Estado, Sao Paulo, Brazil»

Five prisoners serving life sentences in Sao Paulo spent three years digging a tunnel to freedom. When they tried to use it, they crawled right into the waiting arms of the police. The warden has complimented them on their excellent work and says that the tunnel will be used for a water main.

Sam Cica Punches Out at Refinery



After helping with its construction Sam Cica decided the Copper Refinery was a good place to work so he settled down there in 1931. Retired now on service pension he looks back on a satisfying job complete with many good friends. After belonging to the sample gang in the drill room since 1945, Sam declared, "They sure are a swell gang to work with."

Coming to Canada in 1929 Sam went west but soon gravitated to Sudbury where he worked with Fraser-Brace until starting at the refinery. He worked first in the yard and then the wire bar storage before joining the sample gang.

Except for his daughter Savka, who is married to Djura Kasich of Creighton mine, Sam's family have

remained in Yugoslavia where he was born in 1895. His wife died in 1956. Two sons, two daughters and 11 grandchildren complete his family.

He made a trip back to the old land in 1954 and is considering an encore for 1960. For the present he is quite content living with his daughter in Sudbury.

On his last shift some of the boys from his gang gathered to wish him well on his retirement and, as a token of their esteem, gave him a fine travelling case.

In the above picture works metallurgist Joe Bischoff makes the presentation while Joe Martin, George Pavetto, Norm Arbour, Mike Tubac, Gatano Vito and Pasquale Lavuato beam approval.



Levack Skaters Again Score Hit In Big Carnival

One of Levack's top community efforts is the Figure Skating Club's annual carnival.

For weeks prior to the great event scores upon scores of youngsters tirelessly practise their edges, figure eights, spirals and turns, while dozens of equally enthusiastic mothers make like Dior, designing and creating costumes galore.

Climax to it all is that Saturday night when the carnival hits the ice. Again this year hundreds of local fans were delighted with the bright original costumes, variety of skating numbers, colour and gaiety, and of course the usual humorous mishaps. Some very fine skating by the club members and guest artists Gertrude Desjardins and Maurice Lafrance combined to make this sixth consecutive carnival one of the best.

Club president Mrs. R. MacNeill and her executive, along with club pro Joyce Salo McKenzie and junior pro Pat Simpson were entitled to several bows for the fine show they produced. Despite an



The Roving Camera



A tapper helper on the reverberatory furnaces at Copper Cliff, Earl Mick has service with the Company dating back to 1948. He was born in Coniston and now makes his home in Sudbury. For many years an active shift league softball and hockey player, Earl is a strong Sudbury Wolves supporter. Fishing speckles and hunting are now among his favourite pursuits for which his camp on Trout Lake near Rutter is ideally located. He married Georgina Carr and they have a daughter Eileen, 15, and son Wayne who is 13. In this slag-skimming picture Earl is making up a clay bud to bud-up the reverberatory furnace tap hole when the slag pot is filled.

air of seeming bedlam backstage — to the uninitiated that is — on the ice all was precision and form very pleasing to all.

Titled Nickel Blades, this year's carnival featured in the first half an Alice in Wonderland theme for the younger performers, after which the juniors came up with a brilliant series of numbers. Nearly 150 youngsters took part in the show, more than half of them under nine years of age. The Junior Baby group had a top age of five.

Round after round of applause for every number right through to the roof-raising finale sent everyone home happy and proud.

THE PICTURES

TOP LEFT: Northern Lights was an unusually effective number that had the skaters carrying large-size sparklers in the blacked out rink. Members of this group were Elaine Bertrand, Susan Beauchamp, Linda Corkal, Carol Charbonneau, Cecile Dufresne, Margaret Fay, Penny Gillis, Brenda Kimball, Liette Mayer, Louise Nadon, Marion Prosser, Pierrette Robitoux, Judy Ringrose, Lynn Snell, Judy Timpano and Mary Vettorel.

LOWER LEFT: More of the colorful costumes that delighted the audience are seen here with Doormouse Danny Johnston and March Hare Keith Lappan in the foreground, and Easter Paraders Linda Forget, Cheryl McCourt, Mary Craser, and Linda Kouspatis in the back row.

LOWER RIGHT: That demure young pair of Highland lassies in front performed together in almost professional style to win the plaudits of the crowd. They are Wendy Piccolo and Ina Lynn Purvis. In the back row are a group from the Winter Wonderland number, Sandra Timpano, Judy Chapman, Margie MacNeill, Heather Lennie and Diane Lauzon.

CENTRE: In this group of performers, both big and small, are Ruth MacNeill, Beverly Mornan, Heather Hatch and Carole McGowan, in front; almost hidden in centre, Vicki Young, Jeanine Mayer and Charlene Lavergne; in the back, Patsy Delorme, Kathy McGowan, Diane Vettorel, Susan Sarkka and Margie Yuill.

TOP RIGHT: Waiting to go on! At the entrance to the dressing room the camera caught this group all ready for their Northern Lights number. Shown are Lynn Snell, Linda Corkal, Elaine Bertrand and Penny Gillis.

Len Lewis

Born in England in 1902, Len Lewis was raised in Copper Cliff where his family settled in 1904. His father Charles worked for the Canadian Copper Company for more than 20 years. Retired now on disability pension, Len looks back on almost 40 years' association with Inco.

He got his first job in 1917 picking rock at Creighton but he soon quit that and returned to school,



Possessor of one of the readiest and most pleasant smiles at the general office Rita Lugli of the tabulating department has a personality to match. She needs it, too, to cope with the good-natured ribbing she gets from the boys. She was born in Copper Cliff and her father, Guerrino Lugli, is a carpenter at the smelter. Since the death of her mother in 1954 she has helped keep the home fires burning bright in addition to her job. Last fall, for a change, she and a girl friend took off on vacation and after an eight-day stay in New York doing the town (including, Como, Sullivan, Hudson and others — live) flew on to Miami where they enjoyed a week of sun and sand. "Best holiday I ever had; I'd like to do it again," said Rita.



Mr. and Mrs. Len Lewis

The following year he started in the yard at Copper Cliff and a few years later moved into the old reverberatory department. During the shutdown in 1921 he worked for the railroads, then started back with Inco on the blast furnaces where he remained until retirement. Len was assigned for many years to the back-track crew there and as he put it, "They were a real good gang to work with."

In 1948 Len married Aili Lehtonen and they live in the old family home on Poplar street in Copper Cliff where she was born. Her father August, who died in 1956, was an Inco employee.

Reading, relaxing and generally taking things easy are among Len's favourite pursuits these days.

Angelo Giardini

Angelo "Rosie" Giardini has retired from the crushing plant at Copper Cliff on service pension and he's now catching up on some of the sleep he claims to have lost

since starting work in his early teens. From bed to couch to chesterfield is a daily circuit he now makes with great satisfaction. "I like to sleep" is Rosie's frank and happy explanation.

Born in Italy in 1894 he worked two years in a brickyard there before coming to Copper Cliff in 1913. During the shutdown in the early twenties Rosie worked at Kirkland Lake, then returned to Copper Cliff in 1924. He had almost 35 years of credited service with Inco.

Rosie worked first in the blast furnace department, then moved to the crushing plant when that operation started up.

He married Angelina Baldella in 1928 and their family are Nino of Detroit, Elva whose husband Louis Mearini is also a crushing plant man, and Albert at home. One grandson, 4-year-old Johnny, is undisputed master of the Giardini household.

Having lived up "the hill" at Copper Cliff from the start, Rosie has no intention of leaving except possibly for a trip back to Italy.



Mr. and Mrs. Giardini



Some of the coaches and about half the players in the first edition of the Thompson Boys' Hockey League are shown in this group picture.

Plenty Steam in Thompson's First Hockey League

A practically unlimited source of energy has already been harnessed in Manitoba's newest town of Thompson, and probably could be used to operate the Inco works if for any reason the Kelsey power plant failed to function.

In its first season the Thompson Boys' Hockey League gave every indication of making the town another happy hunting ground for the big league scouts in the best Western Canada tradition.

About 80 boys were organized in the initial edition of the league. In the 7-and-under age group there were the Rockets, coached by Jerry Frolek, and the Flyers, coached by Bob Hurst. The junior section (8 and 9 years) had the Thompson Tornados, with Bro Eyjolfsson as coach, and the Red Devils under Jack McDougall and Archie Thom. In the intermediates (10 and 11) were the Red Eagles coached by Andy Rickaby and the Timber Wolves under Don Gray, while the seniors (12 to 16) were divided into the Thompson Warriors under Vic Goodman and the Red Men under Neil Adams.

Committee in charge of the league consisted of Don Gray, Andy Rickaby, Cliff Alguire and Jerry Bradshaw, assisted by Carl Nesbitt, Tom Suchy, Tom Norquay, Ross Falconer and Dr. J. B. Johnston.

Community interest in the success of Thompson's first hockey organization was illustrated by the contribution of mine surveyor Garfield Gillis, who volunteered to make the goal nets. He whittled



It was the Warriors vs. the Red Men when this action picture was shot at the Thompson school rink.

a wooden shuttle and then wove the rigging of plain cord the same way he used to make lobster nets as a boy back in Prince Edward Island. An Inco man since 1948, Garfield previously worked at Levack, Frood and Garson, and has been at Thompson since last April. In an accompanying picture he's shown as he worked on one of the goal nets which is being displayed by Harry Wark, Foundation Company yard foreman and camp sports impresario.

In the action picture goalie Doug Goodman of the Thompson Warriors has just handled a hot drive from right wing. The players, from left to right, are Bob Thornborough, Garry Leitch, Larry Perin, Rusty Faickney, Jim King, Ken Delaney and Ricky Hess.

Small Magnets

An alloy of copper, nickel and iron has been employed to produce permanent magnets as small in diameter as a human hair. It is expected that these magnets will find use in components of magnetometers and galvanometers.



Garfield Gillis had the distinction of making the first goal nets.

Four Copper Cliff Employees Collect Handsome Suggestion Plan Awards



Over \$300 in Employees' Suggestion Plan awards was distributed to four highly delighted Copper Cliff Incoites this month. LEFT: "I'll sure put in more suggestions from now on," grinned Burt Gravestock, a welder. The first idea he submitted, for an improvement in the casting of mill launder screens, netted him a cheque for \$235.00. "I never hoped for that kind of money," he said, "but it will sure come in handy on our trip to Toronto this weekend." Burt lives in Minnow Lake and has been with Inco since 1947. CENTRE: This happy foursome, seen dining and dining at Cassio's, had good reason to celebrate. Brothers Guido (left) and Ernie Cecchetto each received a \$243.00 suggestion award for their part in improved ladle repairs. Guido is a welder and has five sons, Ernie a mechanic with a family of six. "This kind of a party can't happen too often to suit us," said their very pleased wives. RIGHT: Wally Flowers, machinist, stands beside one of the roaster drive pinions that helped him with a \$229.00 award. He suggested an economy in the way the pinions are made. With vacation coming up in May and a trip to visit his sister in Calgary all planned, Wally and his wife knew just what they were going to do with their windfall.

Ed Cayen Rated One of Best



Trying out his retirement gift from the boys at the mine. Ed says it fits in perfectly with his retirement plans. Helping him initiate the easy chair are his wife, his son Morris (second from right), and Frood friends Mike Pasko, Gordon Beckett, and Dave Fortin.

One of the best raise and drift drillers ever to don a suit of oilers, Ed Cayen has retired from Frood mine on service pension.

Ed's early raise-driving experiences make an interesting comparison with the modern Alimak raise climber now in use at Inco. "Lots of times we carried up 30 sets of steel to drill off one round there were no tucker hoists then," Ed said. "You carried everything up on your back including the stopper." Some of the

early incline raises he worked in had no manway, the drillers climbing up the cribbing carrying their gear, he recalled. "I never had a chance to try out this new machine," he said, "but it sounds pretty good to me."

Born at Pembroke in 1894, Ed was raised at Chelmsford. He spent many of his early years in the bush north of Carleton Place, where his ability to read and write made him camp bookkeeper.

Leaving the bush in 1923 he got

a job at Creighton mine and helped sink no. 4 shaft. In 1925 he started driving raises and for the next quarter of a century was one of the best at Creighton and later at Frood, where he moved in 1937. Ed came to surface in 1950 and worked the last six years in the Frood powder magazine.

Among Ed's proudest memories are some of his underground accomplishments: driving a record 298 feet one month in a drift on 1200 level at Frood; driving the high speed drift on 2400 from Frood to Stobie; the big return air raise (9' x 16 feet) from 1600 to 800 at Frood; the 2800 South exploration drift; difficult raises and tough drifts. "I've drilled raises with old hammer drills," he re-

called, "dry too, and I've driven lots of incline raises with a leyner."

He was married to Irene Sabourin in 1917 and their family are Eddie of Creighton, Morris at Stobie, Fern at Frood and Cecille (Mrs. Bradley) of Sudbury. They have 16 grandchildren. Ed also has a brother Joe at the Open Pit and another, John, at Creighton.

Enjoying the Penage Lake camp owned by his son Morris, and loafing in the winter plus enjoying family and friends, all rank high in Ed's plans for the take-it-easy days ahead.

Best wishes for a long and pleasant retirement go out from hundreds of friends and workmates to this rugged master miner.

Substation Operator Art Long Honored



Art Long, who has retired on disability pension, became an operator in No. 1 substation at Copper Cliff in 1939. He first joined the nickel industry in 1924, working for Mond at the Nairn Falls power plant.

In the above photograph Art wears a pleased smile as Val McGauley unwraps a gift of luggage presented to him at a stag party given in his honor by the boys of the electrical department. On the

right are electrical superintendent A. E. Prince and former electrical superintendent W. H. Soule.

Art was born and raised in Blind River. He was married in 1930 to Helen Brown of Meaford, whose death took place in 1958 at their home in Copper Cliff.

Of a quiet, unassuming disposition, Art is held in warm regard by all his workmates. His hobbies are photography and reading.

Frood-Stobie Curling Champs



Nothing but an 8-ender would do as the highlight of the rousing annual Frood-Stobie Athletic Association bonspiel, staged at the Copper Cliff Curling Club with 44 rinks competing and Eldred Dickie in charge. So here are the boys who racked it up: Ed Peel, Eric Kossatz, Joe Witty and skip Walter Sturby.



Mine superintendent S. J. Sheehan presents the Pete Stewart memorial trophy to the winners of the Frood-Stobie Spiel's first event, skip John Rybachuk, Dick Tobin, Marlow Allen and Ted Legge.



Skip Wes Johnson, Leo Fletcher and Don Mitchell receive the second event prizes from Inco superintendent of mines J. A. Pigott. Fourth man on the team was Charlie Murphy.



Frood assistant superintendent Norm Creet presents the third event foot to skip Pat Tremblay, Rec Carriere, Ralston Pyne and Ted Harper.

Old-Timers Spark Copper Cliff Entry



With 17 teams hotly competing for the booty, the Copper Cliff bowling league makes Monday and Wednesday evenings among the liveliest at the Sudbury Inco Club alleys.

While not in the top ten at the moment, the team pictured above rate a triple A for competitive spirit and good sportsmanship. Their manager, Fred Stevens, claims that they are the best balanced team in the loop. "We always have a couple of younger fellows to spell us off," he grinned.

The three stalwarts shown at the head of the group are real veterans. Fred Stevens admits he has been bowling for over 25 years, 20 of them in this league; Pat Bradshaw, who is nudging the service retirement age, has been bowling since the Inco club opened and has played nine seasons with this team; Tom Strong has bowled with Fred for over 20 years and is one of the 200 regulars.

Next in line behind Tom are Bernie Aikay, Malcolm Finlayson (with the team 10 years and a regular 200 man), Ernie Galen and Doug Pappin, this season's captain. "I enter a team in the league every year," Fred told the Triangle, "and try to get each man to take a turn at being captain."

Every week after bowling the boys retire to one or other of their

homes for refreshments and a game of crib, and this, in their opinion, makes a pretty complete evening.

John Takala

John Takala, who retired recently from Creighton on disability pension, first worked at that mine in 1933. Earlier, in 1924, he had worked at Levack until it was shut down in 1929 following the fire. Between mines he worked in Sudbury for a few years.

Coming to Canada from Finland in 1923, he worked one year on the railroad near Swastika before visiting a friend at Levack and deciding to get a job there. At Creighton he started at no. 3 shaft and worked there until retirement. He was for many years on light duty after an injury to his hand.

In 1917 John married Lempi Oikemus in Finland. Their daughter Anne and their son Arvo are both well-known Creightonites, the former the wife of Norm Silverton. They have two grandchildren.

A trip back to Finland 10 years ago gave John a chance to renew many old acquaintanceships but he says he had no yearning to stay on there, and was glad to come home to Canada.

The Sweeping Is High Class at Thompson



They don't do things by halves in Thompson, and that includes their curling. Here Ralph Hawkins and Nadine Rutherford go all-out with the brooms to coax a lazy rock into the house. The interested observer is Nadine's husband Jack. In its first season the Burntwood Curling Club has 165 members.