

Northern Winter

Eventful Year Reviewed by Dr. Thompson

The year 1956 was one of the most eventful in the history of the nickel industry, Dr. John F. Thompson, chairman of the board of The International Nickel Company of Canada, Limited, said in a review. Free world nickel production was at a new high. The year marked the beginning of the development in Manitoba by Inter-national Nickel of the world's second largest nickel production operation which will result in a substantial increase in nickel supplies by 1960. It also saw the United States government arrange for the diversion to industry of substantially increased quantities of nickel originally scheduled for shipment to the government stockpile.

Free World Production Increases "Production of nickel by the free world set a new high record in 1956 at a p r o x i m at ely 450,000,000 pounds," Dr. Thompson said. "This compared with the previous high output of about 427,000,000 pounds in 1955 and 387,000,000 pounds in 1954. Output by Canadian producers again accounted for about 80 per cent of the free

world's supply. "Deliveries of the metal in 1956 by International Nickel, world's largest nickel producer, were ap-proximately 285,000,000 pounds. In addition, the company made available nearly 6,000,000 pounds of metallic nickel by converting concentrates supplied by another producer.

"The following figures of deliveries of other producers are estimated from company or government reports or other published statements. Estimated 1956 deliveries by other principal Cana-dian producers are: Falconbridge Nickel Mines Limited, 43,000,000 pounds, Sherritt Gordon Mines Limited, 19,000,000 pounds. Other free world deliveries included 31,000,00 pounds from the U.S. government's plant at Nicaro, Cuba; 14,000,000 pounds from Hanna Nickel Smelting Company in Oregon, U.S.A.; 22,000,000 pounds produced by the French company, S. A. Le Nickel, from New Cale-donian ores; and 26,000,000 pounds from all other sources, a major portion of which was refined in Japan from New Caledonian ores.

Nickel Distribution

"Distribution of the total free world nickel supply in 1956 ap-proximated that of the previous year, with about 65% going to the United States and 35% to Canada, the United Kingdom and other

A Lowly Jackpine Proudly Wears Winter's Diadem countries of the free world. Heavy defence production continued to use a substantial part of the nickel distributed to the United States,

far in excess of the percentage for other principal base metals.

"The very high level of indus-trial activity maintained in Europe and North America in 1956 was reflected in the sustained heavy de-mand for nickel and nickel alloys in every field of application. In-creased amounts of the metal were employed for defence uses, and, although the quantity available for civilian applications was somewhat greater than in 1955, limitations in supply and continuation of de-liveries to government stockpile continued to retard the full development of established and potential markets.

"In the United Kingdom there was a slackening in the general demand for consumer goods, especally in such industries as automotive, radio and television. How-ever, the overall pulse of industry there was strong with the production of stainless steels and engineering alloy steels some 10% above that of 1955. Many new industrial projects were initiated, especially in the petroleum and petrochemical industries.

Applications

"As has been the situation for many years, the steel industries of the free world continued during 1956 to use the largest proportion of the primary nickel available to industry, principally in the pro-duction of stainless steels, engineering alloy steels and jet engine alloys," Dr. Thompson's review disclosed.

"During the year the output of the nickel-containing stainless steels reached an all-time high. This record production was materially aided by the substantial use of stainless steel scrap. Pro-ducers in the United Kingdom, France and other countries followed the United States in initiating production of the lower nickel-containing types of stainless steels for use in transportation equipment and certain domestic and allied applications. The chromium-nickel grades continued to be employed in increasing quantities in practically all industries, ranging from consumer products to atomic energy and high speed aircraft.

"Output of the nickel-containing engineering alloy steels in 1956 was limited by the availability of nickel, and production approxi-

mated that of 1955. Established applications, such as in automobiles, trucks, tractors, aircraft, military equipment, farm machinery, road building equipment, and components for the atomic energy, electronics, railroad and petroleum industries were responsible for the major portion of the consumption of the engineering alloy steels. Most important new applications were those involving heat-treated alloy steel plates and shapes, and increasing attention was given to new 'super' strength steels de-veloped initially for aircraft for aircraft landing gears.

"International Nickel's high-nickel-chromium alloys, such as the Nimonics developed by the company's affiliates in the United Kingdom, and the Inconels, de-veloped by Inco's United States subsidiary, continued to play a leading role in the construction of aircraft turbo-prop and jet en-gines, and industrial gas turbines. Monel nickel-copper alloys con-tinued to be employed throughout industry because of their resistance to corrosion and good mechanical properties. The Inconel nickelproperties. The Inconel nickel-chromium alloys were used where high strength and resistance to (Continued on Page 10)



INCO TRIANGLE

INCO FAMILY **ALBUM**

CREIGHTON MINE: CREIGHTON MINE: Mr. and Mrs. Dan Horner, Lively, with Kenny, 8, Marie, 7, Danny, 3, Brian, 5, Carol, 10, Joan, 11, and, back row, Bill, 16, Bob, 18, Janice, 2, Evelyn, 15, Len, 13.





NICKEL REFINERY Mr. and Mrs. Coleman Tokei, Port Colborne, with Coley, 4, and Clara, $1\frac{1}{2}$.



FROOD - STOBIE MINE: Mr. and Mrs. George Inkster, Frood, with George, 13, Robin, 10, Alan, 7, Heather, 11, and Brian, 11 months.



IRON ORE PLANT: Mr. and Mrs. Percy Jarvis, Sudbury, with Deanne, 9.







CONISTON SMELT-ER: Mr. and Mrs. Len Rivais, Coniston, with Diane, 6, Bren-da, 7, Ricky, 6, Joyce, 5, and Sharon, 5 months 5 months.



Curling Pioneer

It was away back in 1910 that the besom and stane brotherhood of Parry Sound first welcomed to its membership a tall, soft-spoken young lumberman who, in subsequent years, curled in just about every event and shared the silverware in many of them. In the 47 years since young Tom Pickering threw his first rock through the house, curling has been a way of life he has enjoyed to the full.

Retired now on Inco service pension, Tom spends much of his leisure time at the Sudbury Curling rink, where he is listed as official referee. Joining that club back in 1920 when he first settled in Sudbury he has helped guide it through some pretty lean years to the sound position it occupies today. Now he does a good deal of his curling in comfort behind the plate glass or around the cribbage board, but on occasion he will still sally forth to Copper Cliff or the Granite Club with a team and put on a pretty sharp challenge match.

Born 71 years ago on a farm near Bracebridge, Tom took to the woods, as it were, at an early age and his recent retirement culminated a career of well over 50 years spent in the great outdoors. To-day he is a 6-foot, 200-pound pic-ture of rugged health attributed in large measure to clean outdoor living. He expects to be drawing his pension for a long time since his father lived to be 93.

Before moving to Blind River in 1915 as superintendent of woods operations for Chew Brothers of Midland, Tom was foreman for Several years with the Parry Sound Lumber Company. Recall-ing that McFadden, Morgan, Hope, Beck, Chew and many others were big operators in the Blind River area then, Tom says there was over area then, 10m says there was over 10,000 men employed in lumbering in that district. "In fact," he maintains, "90% of the work in this province was connected with lumbering prior to 1915. Mining and manufacturing were only in their infancy then."

In those early days, with practically all logs transported by water, the annual river drive was the highlight of the season. Never



The site is being prepared for Inco's new concentrating plant at Levack, to be constructed at a cost of \$12,500,000. Location of the new mill can be seen from the above photograph, the mine surface plant in the background. Inspecting the site, pursued by one of the seven big bulldozers on the task force, are Ben Nelson of Inco's engineering department and George Phelan, the Foundation Co. project manager, followed by Ed. Miniat and Hjalmar Stavang.

missing a drive all the years he spent in the bush, Tom says that part of the game was pretty tough, the men sleeping in tents and battling stubborn logs and icy water every day. Drives of 80 to 100 miles were common, some taking up to three months to complete. On arrival at Blind River most logs were towed in booms across Georgian Bay to Victoria Harbour, Penetang, Midland and other sawmill centres. Tom recalls only two sawmills at Blind River during those years.



A cribbage joust down at the curling rink with good old cronies like Hughle Grace and Del Andress is a favorite pastime of Tom Pickering (centre), Inco pensioner, when there aren't enough of the boys around to play a few ends out on the ice. Tom drew his first rock to the button more than 47 years ago.

Those stands of beautiful, white virgin pine with a diameter of 50 inches and more gradually retreated, under man's onslaught, farther and farther from water, making them costlier to log. This resulted in many outfits moving elsewhere and 1920 found Tom operating out of Collins Inlet. That same year he purchased a permanent home on Drinkwater street in Sudbury where his wife and son Errol (now a CPR loco engineer), welcomed him home at regular intervals.

In 1932 Tom became a scaler and estimator for the government, where his wide knowledge of the country and its timber was in-valuable. He scouted the great northland by canoe and snowshoe, often spending months at a time in the bush.

Coming to Inco in 1936, Tom supervised the changeover from crib dams to concrete in Inco's water storage system on the far reaches of the Spanish River above its power plants. Making periodic checks on the dams he also noted water levels and other conditions, and in addition inspected supplies of timber to be shipped to the mines. His old lumberman's knowledge and ingenuity, coupled with his calm and confident manner. won him many friends and admirers.

Harking back to curling, Tom recalls that many rinks of the early days had pine board floors so that after the first frost water could be sprinkled on the boards to make ice. This early board ice coupled

with more severe winters gave natural ice rinks a longer curling season than they enjoy today, he says. And speaking of winters, Tom is one who thinks today's type is pretty tame compared with the 40-below weather and deep snow of 30 or more years ago.

QUICK QUIZ

1. How many beaver are trapped annually in Canada?

2. How do Canadians rate among the world's peoples as users of textiles?

3. Name three Canadian rivers of more than 1,500 miles in length. 4. Of the estimated 90,000 persons in the labor force in the city of Ottawa, how many are employed by the federal government? 5. What is the minimum age of

a Canadian senator?

ANSWERS: 3. The Mackenzie, St. Lawrence, and Nelson Rivers. 5. For appointment to the Senate a Canadian must be at least 30. 1. About a quarter of a million beaver pelts are taken by wild life trappers in Canada annually. 4. About 30,000 are government employees. 2. Because of the variable Canadian climate and because Canadians enjoy one of the highest living standards in the world, they use textiles at a rate about three times the world average.

(Material prepared by the editors of Quick Canadian Facts.)

INCO TRIANGLE

Levack Again Leads Mines and Plants Loop



Some pretty fancy entertainment is being dished up again this year in the Inter-Mines and Plants hockey league, and Frankle Graham of Frood-Stoble has even been moved to opine that this setup looks more like the old Nickel Belt Hockey League every day. Playing a fast, rugged, crowd-pleasing game, the boys deserve bigger gates than they're getting, although the turnout of fans at Levack is usually pretty good. Picture shows Frood goalie Llonel Beaulieu handling a hard drive by Kelly Campbell of Garson, with referee Berk Keaney in the background. Levack is leading the league; RCAF and Chelmsford are the other clubs.

J. R. Gordon, R. D. Parker **Receive New Appointments**

J. Roy Gordon has been elected executive vice-president of The International Nickel Company of Canada, Limited, John F. Thompson, chairman of the board, and Henry S. Wingate, president, announced on January 11. Mr. Gordon has also been elected executive vice-president of The International Nickel Company, Inc., the Company's United States subsidiary.



He has been a vice-president of The Interna-tional Nickel Company of Canada, Limited, since June, 1953, and of The International Nickel Company, Inc., since January, 1955. Mr. Gordon

graduated from

Queen's University in 1920 with the degree of bachelor of science in He served as research chemistry. metallurgist with M. J. O'Brien, Limited, from 1920 to 1929, and from 1929 to 1936 he was with the Ontario Foundation at Toronto, in the later years as its assistant director of metallurgy. He joined Inco in 1936 as director of the research department established that year at Copper Cliff.

He was made an assistant to the vice-president in 1941, technical assistant to the vice-president in 1946, assistant vice-president in December, 1947, and assistant general manager of Canadian operations in May, 1952. He succeeded the late R. Leslie Beattie in June,

1953, as vice-president and general manager of Canadian operations, and the following month was elected a director of the Company. He later transferred as vice-president from Copper Cliff to New York.

In 1943 and 1944 Mr. Gordon was designated a member of the Royal Ontario Mining Commission appointed to inquire into matters pertaining to the mining industry. He is a former president and director of the Ontario Mining Association. He is a member of the Canadian Institute of Mining and Metallurgy, the American Institute of Mining and Metallurgical Engineers, the American Society for Metals, Mining and Metallurgical Society of America and the Chemical Institute of Canada. He was appointed a member of the board governors, Ontario Research Foundation, in 1955.

Mr. Gordon was the recipient of the 1948 Medal of the Canadian Institute of Mining and Metallurgy "for his contributions to process metallurgy in the smelting and refining of nickel, and improvements in metallurgical nickel recovery". In May, 1955, he received an honorary LL.D. from Queen's University.

SUCCEEDS J. S. DUNCAN

Ralph D. Parker of Copper Cliff, Ontario, a vice-president of the Company, has been elected a director of The International Nickel Company of Canada, Limited, John F. Thompson, Chairman of the Board, and Henry S. Wingate, president, announced following a directors' meeting on January 7.

He succeeds James S. Duncan, C.M.G., who has resigned from the board in connection with his recent appointment to the post of chairman of the Hydro-Electric Power Commission of Ontario. Mr. Duncan had served as a director of Inco since January 7, 1946.

Mr. Parker, besides his 30 years' experience operating mines, has also had world-wide experience in the search fcr and examination of nickel occur-



rences. He is president of Canadian Nickel Company Limited, Inco's exploration and prospecting subsidiary. Under direction his Inco's advanced methods of geophysical explor-ation for nickel in northern

Manitoba led to the discoveries which permitted the launching of the project announced a month ago for the development over the next three to four years of a \$175,000,000 nickel project in the Mystery-Moak Lakes area, which will be the biggest nickel-producing operation in the world next to the Company's operations in the Sudbury district of Ontario.

He began his career as a mining engineer in the California gold fields immediately after gradu-ating from the University of California in 1920. The following year was spent in gold mining in British Columbia, and in 1922 he transferred to McIntyre Porcupine Mines in northern Ontario. Joining International Nickel at Copper Cliff in 1928 as superintendent of Creighton mine, he later became superintendent of Frood mine and subsequently superintendent of

mines. In 1935 he was appointed general superintendent of the mining and smelting division and in December, 1947, he became assistant vice-president. He was made general manager of Canadian operations in May, 1954, and a vice-president in May, 1955.

Mr. Parker is a director of the Ontario Mining Association. He is a member of the Canadian In-stitute of Mining and Metallurgy, the American Institute of Mining and Metallurgical Engineers, The Institution of Mining and Metallurgy (England) and The Chem-ical, Metallurgical and Mining Society of South Africa.

Served 15 Years **On Frood Hoists**

Enlisting in the 21st Canadian Infantry Battalion straight from high school at the age of 16 made a man out of young Ed Mallette in a big hurry, as it did thousands of other young Canadians in the year 1914.

Returning home to Arnprior after the war Ed joined forces with the CPR as a telegrapher, but the mining game caught up with him and in 1923 he left the clicking key for the roaring drill. When he arrived at Frood, Martin Horne assigned him to raise driving on 2800 north, his partner being the redoubtable Frank Crome, now Levack surface impressario.



MR. AND MRS. MALLETTE

Ed remained on development work until 1940 when he was given a chance to train as a hoistman. He worked for more than a year helping instal new hoists at Stobie and Murray, then operated the No. 4 and No. 6 shaft underground hoists at Frood for two years, after which he was assigned to the supply cage hoist at No. 3 shaft. He had a fine reputation for steadiness and dependability.

Ed liked hoisting and would probably still be at it today if he hadn't developed a heart condition which, along with a perforated ulcer, induced him to retire on disability pension, a move that had the blessing of his doctor. Ed married Ruth McDowell at

Chapleau in 1920 while working for the CPR there. Of their family, Buddy is employed as a mechanic at the open pit, Beatrice is Mrs. Gordon Wright, whose husband works at Frood, and Mary is Mrs. Bouchard of Detroit. They have 10 grandchildren.

"I wouldn't mind doing it all over again if I was sure I'd be working for a company like Inco," was Ed's final remark.

THERE'S A DIFF

Heard of a steno who has a sign over her desk that reads: 'I like my job; it's the work I hate'.



Vera Rohozynsky, teacher at Nickel District Collegiate and daughter of a long-time Inco employee, Nick Rohozynsky of Frood, sings a Ukrainian Christmas song.

Council of Friendship Holds Colorful Christmas Party

One of the most colorful and interesting parties of the Yuletide season took place at Legion memorial Hall in Sudbury when the Sudbury and District Council of Friendship turned out in force for their Christmas meeting. Around the candle-lit holly-bedecked tables there was much merriment as warm greetings were exchanged in diverse tongues, and new Canadians of many racial backgrounds laughed, sang and danced together during the most enjoyable evening.

Regular meetings of the friendship council are planned more for education than fun, but every effort is put forth to make the December meeting a memorably gay and happy one. The response this year was excellent, nearly 250 joining in the festivities.

The entertainment committee, led by Miss Gertrude Runnings, presented an excellent program, from the opening bars of the hauntingly melodic singing by the Finnish choir to the dash and grace of the dance team of Croatian Ingrid Bolf and Dutch Nick DeHaan. Also adding much pleasure to the evening's enjoyment were the rich voices of Marion Moses and Vera Rohozynsky, the latter offering two beautiful Ukrainian Christmas songs, and a quartet of Estonian ladies blending in seasonal praise in their own tongue.

Carol singing led by Mrs. Thelma Paulson with Miss Shelagh Crosbie at the piano was followed by the exchanging of inexpensive gifts, distributed by girls in beautiful native costume. Then came the very tasty lunch that social convener Mrs. Helen McLaren, with the help of the Catholic Women's League, had arranged.

As the piece de resistance of a gala evening the pulsating strings of Kurt Grundmann's orchestra caught everyone up in the whirl of a fast polka, transforming the floor into a sea of swirling skirts, stamping feet and flashing eyes. Dancing continued until midnight.

Originating in 1951 at the suggestion of the department of immigration, Friendship Councils have helped thousands of new Canadians become members in spirit as well as in fact of the great Canadian family. In the local council, regular monthly meetings are held except during the summer months.

Regular meetings usually consist of talks or movie shorts on some phase of life in Canada that will prove helpful to the newcomer. Topics such as law, insurance, police and fire departments, how to buy property etc., are but a few in the wide field covered. Classes in basic English have also been given when the demand warranted it. Each meeting is topped off with a lunch provided gratis by one of the women's organizations in Sudbury, and a lively dance.

"To promote citizenship by fostering a spirit of friendship and understanding between native Canadians and newcomers to Canada" is the avowed aim of the Council of Friendship, and many have joined enthusiastically in the work of making the newcomers feel welcome and wanted. Here is a very worthwhile effort in which, for the investment of a little of one's self, the return is rich and rewarding.



Croatian Ingrid Bolf and Dutch Nick DeHaan were particular crowd pleasers. Both talented dancers, they have for some time been teaching their art to Canadians.



On the left, a quartet of Estonian ladies, Mesdames Pikk, Nielsen, Viidick and Jurisson; they were accompanied by Mrs. Vist. Top centre, the popular vocalist, Marion Moses. Top right, three charming members of the council, Mara Lalic, Christa Obradovich, and Mrs. Mike Obradovich, whose husband is employed at Copper Cliff. Lower right, coffee break a la Council of Friendship; wielding the cream jug is Valado Knezevic.



Presentations to C. D. Ferguson at his retirement dinner included a mantelpiece memento he is seen receiving from T. H. Peters. In the foreground are his successor as Inco agriculturist, C. A. Young, and vice-president Ralph D. Parker.

Presided Over Transformation of Swamp Into Park at Copper Cliff

Of the 280 people working in the Inco general office building at Copper Cliff today, only three were on the staff when C. D. Ferguson joined the agricultural department back in June of 1916. They are Bert Flynn of the stationery department, Rosemary Ovens, cashier, and C. C. Chapman, superintendent of purchasing and stores.

On his retirement as agriculturist "C. D.," or "Fergie," as he is known to his colleagues and friends, was the guest of honor at a dinner at the Copper Cliff Club to which came a large and representative group to testify to the warm esteem in which he is held throughout the Company.



The guest of honor

Glancing back on his long career, which has been conspicuous for his unflagging devotion to his work — often in the face of deep discouragement — and his high personal integrity, "C. D." said he had nothing but praise for the co-operation his department had received from the Company's management.

Reclamation of areas where vegetation was destroyed in the early days of the industry by billowing clouds of sulphur smoke from the ore roast yards had been a lengthy and costly undertaking, he said. The first big step making it possible was the change in smelting practice at Copper Cliff by which the roast beds were replaced with enclosed hearth roasters from which the smoke was dispersed to the upper atmosphere through very high chimneys.

Conditions improved steadily over the years since that time, "C. D." recalled for the Triangle, as Inco research found ways of making greater use of the sulphur in smelter smoke, thus reducing the amount liberated to the atmosphere. The manufacture of sulphuric acid, and then of liquid sulphur dioxide, were mileposts along the way, and new possibilities for sulphur utilization were now being investigated as a result of Inco's iron ore recovery process.

Copper Cliff's lovely park was a dismal swamp when "C. D." arrived on the scene in the summer of 1916 to join Tennyson D. Jarvis in the agricultural department. They had the swamp filled with sand, and the following spring planted it with potatoes which, for some reason never fully explained, grew best near the Anglican church. Then, in the succeeding years, a tree-planting program was carried on in the park and throughout the town. Many of those trees "C. D." planted and re-planted himself, never giving up although often the odds against winning out against the roast yard fumes seemed hopeless.

After the tide of battle turned, a systematic program of beautification of plant surroundings was gradually developed, and the agricultural department eventually built a greenhouse in which to start the 40,000 and more plants it sets out each spring.

He couldn't have had a more appropriate "going-away present", "C. D." says, than the project undertaken this year at the suggestion of vice-president R. D.

Parker of establishing vegetation along the highway approaches to Copper Cliff by grading, seeding, and planting trees.

Born on a farm near Tilbury, Ont., on November 25, 1891, "C. D." walked two miles winter and summer to the country school his father had attended before him. He stayed on the farm until his older brother had obtained his medical degree, then in 1912 put his own life-long ambition to work by enrolling in the agricultural college at Guelph, from which he graduated in 1916.

He succeeded T. D. Jarvis as Inco's agriculturist in 1924, and heid the fort alone until 1937 when he was joined by C. A. Young.

He was married in 1917 at Guelph to Greta Dryden Slater, whose death took place last year. Their two daughters are Margaret, of the continuation school teaching staff at Coniston, and Kathryn, who is the wife of Barry Curtis of Toronto.

Of the associations "C. D." has formed in the district, there are none in which he takes more pride than those with the farming community. Inco co-operates with the provincial agricultural repre-sentative, Romeo Leroux, by helping to finance local extension programs such as the introduction of new varieties of grains and potatoes, experiments on improving soils, and junior farmer competitions. Through this work as well as his visits to assess smoke damage, "C. D." has made many warm personal friendships among the farmers of the area over the years, from which he draws keen satisfaction.

From his fine home in Sudbury's Beaton subdivision "C. D." has an excellent view of the stacks at Copper Cliff. He'd just like the boys in the reduction plants to know, he says, that he'll still be keeping an eye on those big white plumes of prosperity.

Lived 50 Years In Same House

More than 50 years ago, in April, 1906, to be exact, from Northumberland, England, came the Bell family to Copper Cliff and to 12 Oliver Street. Today Bob Bell, who was 13 then, may still be found at the same address where, since his recent retirement from the Inco electrical department on disability pension, he is completing a renovation of the "old homestead."

In his time Bob served under seven successive general managers at Copper Cliff, and also seven different electrical superintendents.

It was in 1908 that a new office boy named Bell collected his first round of mail in the Canadian Copper Company's general office, the building that now houses the Copper Cliff civic and police departments.

The late Fred Bernhard took a particular interest in the young lad and advised him to complete his matriculation before taking permanent work, advice for which Bob has always been thankful. His first association with the electrical department began in 1911 and ended in 1921 when the plant shut down. During that 10-year period he took time out to serve overseas with the 43rd Cameron Highlanders. Enlisting in 1915 he was discharged in 1919, but as recently as 1953 he had a rather grim reminder of his war years when Dr. Ross Ferguson removed a piece of steel from his shoulder which had lodged there when he was wounded in 1916.



Mr. and Mrs. Bob Bell

Laid off in 1921, Bob worked for a time at Iroquois Falls where he helped install the first 72-inch paper mill. Living frugally and preserving his pennies he finally decided to blow it all on furthering his electrical education, so next came a two-year course at the Bliss School in Washington.

He returned to Inco for a short period in 1924 but being unmarried and still curious he took off for Montreal where he worked for a time on the first diesel locomotives in Canada, the CNR having just put them into service.

His marriage to Ida Marie Lalonde at Copper Cliff in 1925 made him realize that the Sudbury district was definitely for him, so 1926 saw him back in the fold both in the electrical department and at 12 Oliver Street. Since that time he has stayed pretty close to home, and a happier couple than the Bells would be hard to find. They have two daughters, Rosemary (Mrs. Don Mulligan) of North Bay and Patty-May, who is the wife of Doug. Pappin of the mill electrical gang.

Always taking a keen and active interest in sports, Bob was a footballer and distance runner of considerable note in his younger days. Of recent years his physical activitles have been confined mostly to his fine lawn and garden.

A MATTER OF TIME

(From Nickel News, London)

One of our past contributors to "Nickel News", Mr. Wilfred A. John, of Clydach, has described a conversation which interested him last month.

He writes: "Whilst waiting for a bus at a Swansea Valley busstop recently, I saw, coming down the road towards me, a well-known and well-liked service pensioner of the Company, an old friend and workmate of mine.

"He stopped, and I said, 'Hello, how are you getting on?' 'Fine, thanks; I'm feeling top-hole. How are you?'

"'Pretty good, thanks. Keeping busy these days?'

"'Yes, very! The days are hardly long enough for all I want to do, and believe me I have been on pension now for about three years. It seems like three months. I sometimes wonder how ever I found time to go to work!'"

Inco Kiddies Had Another Very Wonderful Christmas Season

With athletic association workers turning in another terrific job of planning and organization, children of Inco employees were as usual entertained at wonderful Christmas parties that were an added thrill to the happiness and joy given them in their own homes. This camera roundup by the Triangle tells the story.



Unconcealed delight shines on the faces of the youngsters, and oldsters look on with quiet approval, as Santa spreads his magic spell at the great Frood-Stobie Christmas party in the scene above. And in the picture below, off in a corner by themselves at the Garson children's entertainment, three little girls are lost in admiration of one of their gifts, a real honest-to-goodness embroidery set.





Santa gets a roguish grin at Coniston . . .



Children of Creighton and Copper Cliff employees v



"Oh thank you so very much!"

The hot dogs were in de



... a hearty handshake and also some pretty close scrutiny at Garson ...



... a mighty sweet smile from a Murray miss.



ited at big theatre parties like this one.



At Lively, Santa again held a huge reception out in the sparkling sunshine on the school grounds.



it the Murray mine affair.

Santa surrounded by good-looking gals at the Levack party.

As usual the copper refinery children had a wonderful time.

(Continued from Page 2)

corrosion or heat are required, and Incoloy iron-nickel-chromium alloys where resistance to oxidation at moderately elevated tempera-tures is required.

"From the outset of the atomic energy program nickel and nickelcontaining alloys, because of their resistance to corrosion, have had an established role in every phase of nuclear development. The tempo of United Kingdom atomic energy developments increased as important industrial groups got into their stride with more projects for the building of power stations following the opening of the first European plant at Calder Hall, The advent of atomic England. energy in the electric power and marine fields promises new and expanded markets for many nickel products.

"While the quantity of nickel available for the nickel-plating industry during 1956 was somewhat greater than in 1955, the demand continued to exceed the supply as was the case in other industries. Among the new developments in this field during the year was the application of 'levelling type' bright nickel deposits to critical items of textile mill equipment requiring hard, smooth corrosionresisting surfaces. Electro-deposited nickel has continued to be a market of pre-eminent importance in Europe, despite the increasing challenge offered by aluminum and stainless steel.

"The copper-nickel-zinc alloys known as nickel silvers continued as the most popular base materials for silver-plated tableware.

"The demand for cupro-nickel alloys for heat exchanger tubes used in the marine, petroleum and power industries continued strong. The greater requirements for cupro-nickel alloys arise from feed water heaters and associated equipment to meet the trend of increased pressures and temperatures.

"In the field of non-ferrous castings there were further applications of nickel-containing hightensile aluminum bronze for propellers for large passenger and cargo ships as well as pleasure This alloy is being used in boats. increasing quantities in Europe as well as in the United States.

"The production of Ni-Resist corrosion-resisting nickel cast irons increased during the year. These alloys were broadly used in the chemical process and petroleum industries and in high-powered engine service to resist corrosion, heat and wear. The output of Ni-Hard abrasion-resisting nickelchromium cast irons also showed an increase over 1955. Leading applications for these cast irons were grinding balls and mill liners as used by the cement and mining industries.

"The use of nickel in electronics showed an increase in 1956. In television and radio receivers and high fidelity sound systems nickel is used principally in tubes and in permanent magnets for speakers. Guided missiles make extensive use of vacuum tubes containing nickel elements because of the ability of such tubes to operate at

Eventful Year Nine Old Timers Honored by Social and Pension Club



Another resounding success was the annual banquet of the Copper Cliff mechanical department's social and pension club, held at the Caruso Club. Some of the diners are seen above. Following a welcome by Bill Kuhl, president, and a historical review by Jack Clark, past-president, presentations of gold watches to recently retired members of the club were made as follows: Domenico Ghetti by Harv Mellow, W. H. Latanville by Jim McNeill, W. J. Ripley by O. McDermitt, Art Folsey by Arnold Boyd, Jim Hudson by Jack O'Hara, A. J. Simmons by Bill Yeo, Attillio Beltrame by J. Johnson, Stan Martyn by Leo Cormier, and Wilho Maki by A. Mossey. An address was made by W. B. Ibbotson, master mechanic of smelters.

temperatures higher than transitors. They also require high quality nickel alloy resistors in their control and computing systems. The forthcoming International Geophysical Year program will employ nickel in a wide variety of ways, in the control equipment of rockets and satellites, in telemetering devices, and in airborne mass spectrometers and other detecting devices.

"Consumption of nickel as a catalyst during 1956 by the chemical and allied industries showed an increase, with consumption about three times that of five years ago.

Inco's Expansion Plans

"Plans announced last month by International Nickel for its new nickel-producing operation in the Mystery-Moak Lakes area of Northern Manitoba and for progres-sive development of its facilities in the Sudbury district of Ontario constituted the greatest single expansion program in the history of the nickel industry. The Manitoba project alone will result in an investment in that province of some \$175,000,000 over the next three to four years.

"International Nickel's own capital investment in Manitoba, as currently projected, will approximate \$115,000,000, with a view to initiating the production of nickel by 1960. These expenditures in-clude the cost of opening and development of two mines, to be known as Thompson Mine and Moak Mine, constructing a concentrator, smelter, refinery and transportation facilities, and providing certain townsite installations. The Manitoba Hydro-Electric Board will undertake con-The Manitoba Hydrostruction, at an estimated cost of \$32,000,000 to \$38,000,000 of a large power plant to supply power for Inco's new facilities. In addition,

it is estimated some \$20,000,000 will be required for costs of homes and buildings at the Thompson townsite and about \$5,000,000 for the construction of a 30-mile Canadian National Railways' spur line to link the new operations with the C.N.R. Hudson Bay line.

"The new Inco development in Manitoba is located about 400 air miles north of Winnipeg and will serve to open a new North American frontier. It climaxes 10 years of exploration by the company in Manitoba at a total cost of some \$10,000,000. The Thompson town development is being planned to accommodate an initial expected population of some 8,000 persons, inclusive of the expected working force of approximately 2,000.

Development Work Needed In conclusion Dr. Thompson said: "Based on Inco's program and the announced expansion plans of others it is expected that

total free world nickel-producing capacity in 1960 will approximate from 600,000,000 to 625,000,000 pounds. This projected capacity is exclusive of supplies from any new Cuban project and represents an increase of some 175,000,000 to 200,000,000 pounds above the total for 1955. It is evident that a huge demand must be provided in order to absorb this projected enlarged nickel-producing capacity. With this very much larger supply of nickel in prospect, it is hoped that other producers will actively pur-sue long-range research and development of uses and markets for nickel as Inco has done over the past half-century."

You do not need some far retreat In which to find your heart's content:

As much romance is in your street As on some distant continent.

-Author unknown.





A delightful visitor at Port Colborne during the Christmas holidays was Mihoko Shimizu of Tokyo, Japan. Here she's seen in a badminton foursome at the Inco Recreation Club with Mrs. Roger Deline, Margaret Shedden, and, on the right, her hostess Catherine Lynden, daughter of Mr. and Mrs. Vic Lynden, who is a classmate of Mihoko at the University of Toronto.

General Office Girls Held Yuletide Dinner at Copper Cliff Club



Three popular members of the Inco staff at Copper Cliff, who were leaving to give their full time to home-making following their recent marriages, were guests of honor at an enjoyable Yuletide dinner party at the Copper Cliff Club attended by many of the girls of the general office. They are seen in the centre at the head table: Mrs. Percy Demers (nee Lina Facca), now of Bracebridge; Mrs. Roy Ruddy (nee Dolly Leclair) of Sudbury; Mrs. Ben Greuel (nee Elsie Domaratzki) of Sudbury, also (left) Mrs. Mike O'Neill (nee Anne Lazarowich) and (right) Miss Florence Husson.

Claude Clement Is New Pensioner

As it is for many another who has been accustomed to working all his life, the doctor's admonition to slow down and give his heart a rest posed one of the toughest jobs Claude Clement has ever tackled.

Born 62 years ago in Arnprior, he was raised in Sudbury where he worked for a time as hod carrier for his father in the construction business. The Royal Bank and Banque Canadien Nationale are two of the town's older buildings he helped to build. During 1912-13 he worked at O'Donnell helping locate the roast beds there. Upon their completion he moved to Creighton warehouse in 1914, then enlisted in the 3rd Cavalry Division shortly afterward.

After being demobilized in 1919 he worked on the C.N.R. and the A.E.R. as a brakeman, and then on construction work at several



Mr. and Mrs. Claude Clement

big power developments until he returned to Copper Cliff in 1933. After working on the reverb furnaces for a time he transferred to the transportation department. There his previous experience stood him in good stead, helping him to become a conductor, the job he held until his retirement.

Claude has decided to sell two of his four houses, lightening his maintenance chores. All four homes were built mainly by his own efforts in the seven years he has lived at Simon Lake. There are few building trades to which

he cannot turn a capable hand to. Unawed by the great depression Claude married Rayia Regimbal at Ottawa in 1929. They have one daughter Dorothy, whose husband Roland Pearce is a raise driller at

Creighton. Their one grandchild gets plenty of adult attention. With the future looking pretty cosy Claude thinks he'll gradually loom to take it eacher and really learn to take it easier and really enjoy his retirement years.

Opens Western Section Aubrey S. Tuttle, B.Sc., a mem-ber of Inco's Canadian develop-



search division for the past 11 years, has been transferred to Calgary to open a Western Cana d a technical field section. The new Cal-

gary office will service the four western provinces. Calgary

was chosen as a base of operation because of its central location in the area.

Born in Medicine Hat, Mr. Tuttle graduated in mechanical engineering at Indiana Technical College and then joined the engi-neering staff of Canadian Westinghouse in Hamilton.

During the war he served in the ministry of munitions and supply. At the close of the war, he joined Inco in Toronto. He married Avanell Glass while in Indiana, and they have two children.

Recalls Sudbury Of Frontier Days

Reminiscences of early days in the Nickel Belt were contained in the following interesting letter received by Inco's Toronto office from Angus Anderson, retired

railway engineer, of Kapuskasing. "In 1899 as a young man I worked in the roast yards of the old Canadian Copper Co. at Copper Cliff. This great Canadian industry has sure come a long way work was done by hand. I can well remember the large gangs of men handling the nickel ore by

hand shovel and wheelbarrow. "I was only a young fellow 19 years old when I landed in Sud-bury at 2:00 a.m. from Grey County. Had to walk over lumberjacks to get to the register of the

best hotel there then, the New American. Coming from a country village like Markdale where after 8:00 or 9:00 p.m. you could turn a machine gun loose on the streets and not hit anything but a stray dog, I thought that was awful. Stayed that night and the following day before going to Copper Cliff. Then on the morning we left Sudbury on the old horse-drawn stage the driver stopped at a certain house and said, 'Boys, here's where So-and-So was murdered at 4:00 a.m.' The blood still laid in a pool beside the road.

When yours truly saw that, was thoroughly disgusted and discouraged. But anyhow I have been in the north ever since.

"I sure would appreciate a copy of your 'The Romance of Nickel'; likely will get a grand kick out

"With best wishes to this great industry that has done so much to make Canada famous."

It is better to be doing the most insignificant thing than to reckon even a half-hour insignificant .-Goethe.



Nickel Solved Braking Problem

How hot is a hot car?

The Mercedes-Benz shown above roaring into a braking turn can hit 170 mph.

When she's braked to a stop, the heat is on. Each brake drum must dissipate energy sufficient to melt almost a pound of iron.

This superheating and the cooling off that follows are too much for ordinary cast iron brake drums they crack. Nickel helped Mercedes-Benz to overcome the

problem. The addition of nickel to the cast iron enabled the production of a brake drum with the thermal stability to take the violent temperature changes and enough strength to resist warpage and wear.

By strengthening and toughen-ing them, nickel benefits many metals. Through its research and development department, Inco works with engineers and manufacturers in ever broadening its usefulness to mankind.



On the left, Sergeant Harold Heron arranges a date with a Red Cross blood service donor. On the right, Mrs. Len Tulloch of Garson, attended by Nurse Carole Graham, looks the picture of health after receiving blood from Memorial Hospital blood bank following surgey. Her husband is a donor.



In this busy scene at the Sudbury Red Cross Centre at 46 Drinkwater Street, Mrs. Masie Welsh, RN, is taking a blood sample from Romeo Rose for a hemoglobin test. Miss Nell Shamess, RN, is making a blood count reading, and Miss Ivy Hiscock, RN, is preparing history sheets. Norman Meaden and Norman Sauve are the other two donors; all three are from Copper Cliff.Blood clinic day is Thursday.

Many Incoites On Roster of Blood Donors

Hundreds of Incoites are active members of Sudbury district's largest service club, a humanitarian organization that cuts across all lines of race, creed, and color.

The qualifications for joining are simple: the applicant must be in good health, between the ages of 18 and 65, and interested in the alleviation of human suffering and the preservation of life.

The membership fee, payable not oftener than once every three months, is a pint of blood.

This unique club, to which more than 2,200 people belong, is the Red Cross blood donor service. Before it set up shop on December 6, the family or friends of anyone receiving a blood transfusion in a Sudbury hospital were asked to make a replacement to the blood bank. Now, through the donor service, the Red Cross takes the responsibility of supplying free



Dr. A. G. Lee, in the picture on the left, is assisted by Nurse Marjorie Jackson, as he starts a donation from Ken MacDonald, husky Stobie driller. On the right, Norman Meaden is making his donation, attended by Miss Rae Tremblay of the Red Cross Corp. A doctor is in charge of all blood clinics.

A Husband-and-Wife Donor Team



Mr. and Mrs. Duncan McLennan of Creighton, enjoy a snack after giving a blood donation at the Red Cross clinic. They have a family of four, one girl and three boys. Many husband-and-wife volunteer donor teams are on the Red Cross roster.

blood to everyone, regardless of the number of transfusions required. The importance of having an adequate supply of blood available when it is needed can hardly be over-estimated, but the good done through this organization by no means ends with the patient, those treating him, and his loved ones. The donors, sharing in a lifegiving act, experience a satisfaction out of all proportion to the simple gift they volunteer.

Although a large percentage of those with the distinction of having their names on the Red Cross blood donor roster signed up individually, many have joined in groups recruited from the staffs of business firms, government departments, other community organizations. The number of these is growing steadily, to the great de-light of the service administrators. At the first blood clinic on December 6, about 70% of those donating were Canadians of Hungarian descent who, their leader said, were paying "a debt of honor" for blood sent from Switzerland by the International Red Cross to the assis-tance of the freedom fighters in their native land.

Clinics are held at the Red Cross centre, 46 Drinkwater St., Sudbury, and are staffed alternately by the Red Cross home nursing unit and the Red Cross Corps. The registered nurses in attendance, the staff pathologists of Sudbury's three hospitals, Drs. Lynch, Lee, and Rayfield, and other members of the medical profession like Dr. J. A. Dixon and Dr. Faustina Cook, also volunteer their services.

Before blood is taken the haemoglobin of the donor is determined to ensure he or she is in good condition to make the donation. All donors are typed as to their blood group, and the RH factor of their blood determined, this information being recorded on a card which is given to them. A doctor is in charge of all clinics. Coffee and sandwiches are served to the donors.

The man responsible to a large extent for the instant success of the Red Cross blood donor service is an Inco policeman, Sergeant Harold Heron, who became interested in this type of work when he was appointed chairman of the blood donor committee of his lodge.

Realizing the need of some agency to whom people could turn for help in an emergency with which the vast majority were completely unfamiliar, he set about to broaden the field to which he could offer this noble service. By quietly soliciting the assistance of first his friends, then acquaintances, and finally anybody he could back into a corner wherever he found them, he gradually built his list of volunteer blood donors to the almost incredible total of 600 names. Up to December 5, when he turned over his list to the Red Cross, his donors had supplied more than 700 bottles of blood.

Sergeant Heron's roster sent the Red Cross campaign away to a flying start, and it has never looked back. Hundreds of people who had given donations during the war readily agreed, when canvassed, to become regular donors, as did hundreds of others to whom it was a new experience.

The blood banks at all three Sudbury hospitals — St. Joseph's, General, and Memorial — as well as the Copper Cliff Hospital and the Sudbury-Algoma Sanatorium, are supplied by the Red Cross donor service.

Appointments Are Announced

Appointments to the staff of the recently created Manitoba division of the International Nickel Company were announced at the year end by vice-president Ralph D. Parker, effective January 1. James C. Parlee was made man-

James C. Parlee was made manager of the Manitoba division, and F. F. Todd and S. A. Crandall assistant managers. To assist in expediting its construction program in Manitoba, the Company has opened a Winnipeg office in the Royal Trust building, 436 Main Street, and Mr. Parlee will make his headquarters there during the construction period.

Also appointed to the Manitoba division staff, which will be enlarged as required, are R. L. Hawkins, mine engineer; J. R. Hawkins, accountant; W. J. Thorpe, purchasing agent.

Other appointments announced by Mr. Parker were: R. R. Saddington, a cting manager of reduction plants; C. H. Stewart, assistant superintendent of mines; C. A. Young, agriculturist; T. H. Peters, assistant agriculturist; W. R. Koth, assistant manager, copper refining division.

H. J. Mutz, manager of mines, announced the appointments of

S. J. Sheehan, superintendent, Frood-Stobie mine; J. A. Piggott, assistant superintendent, Frood mine; R. H. D. Brown, underground superintendent, Creighton no. 5 shaft.



J. C. Parlee K. H. J. Clarke

The appointment was announced by H. F. Zurbrigg, chief geologist, of G. W. Thrall as geologist in charge of Canadian Nickel Company operations in Manitoba.

R. H. Hewgill, manager of the copper refining division, announced the appointments of E. F. Rabeau as assistant to the manager; F. W. Sheridan, superintendent of casting, yard and transportation; C. B. Matthews, assistant superintendent, casting, yard and transportation.

M. Austin, works auditor, announced the appointments of R. E. Ovens, cashier; G. W. Hunter, assistant cashier; T. J. Meehan, cost accountant.

Appointments to the staff of the Company's Toronto office were made by president Henry S. Wingate as follows: Kenneth H. J. Clarke, manager of Canadian sales and market development; J. D. McLean, assistant manager, Canadian sales and administration; Dr. G. S. Farnham, assistant manager, Canadian development and research; G. J. Marsh, Manager Toronto office.

They're Administrators of Red Cross Blood Donor Services



Ray R. Jessup, on the left, is president of the Sudbury Red Cross and chairman of the blood donor's service. "We deeply appreciate the response we are getting from Inco people in our efforts to ensure an adequate supply of blood at all times for our hospitals," he told the Triangle. "This community service is free to everyone and everyone is free to help." In the centre above is Mrs. Helen McLaren, the extremely capable administrator of the blood donor services who coordinates this vital activity from an office in Memorial Hospital. On the right is Harold Heron, Inco police sergeant who is chairman of the blood donor panel and makes hundreds of telephone calls dating donors for the regular Thursday blood clinics.

Putting Finishing Touches to Cushion Between Bowl and Liner



Looking like a science fiction writer's idea of life from another planet, Creighton mill mechanics Maurice Coulter and Dona Leblanc are adding the finishing touches to the zincing of a crusher bowl liner in the mill repair bay. Maurice is putting in the final ladles of molten zinc to bring the level up to the exact mark after the main slug has been poured with a special funneling assembly.

Zincing-in Crusher Liner Is Colorful Maintenance Job

One of those interesting maintenance procedures that are vital to the efficiency of Inco operations is the zincing of crusher bowls and heads to increase their resistance to the terrific pounding they take in the line of duty.

In a cone crusher the big conical mantle is fixed to the shaft head, which gyrates by means of an eccentric driven through gears, and the crushing action is caused by the eccentric movement of the mantle against the lining of the bowl. That's when the tough old nickel ore gets it — but good.

Zinc is a strongly resilient metal, lighter than lead and of a relatively high impact strength. It has the ability to absorb a lot of punishment and also tends to lessen noise and vibration, helping to reduce metal fatigue and consequent maintenance. Cushions of this silvery grey metal between the crusher's liner and the bowl, and between the mantle and the head, help seat liner and mantle firmly in place and also distribute the pounding and pressure exerted in the crushing action as well as to some extent serving as a recoil.

The vigilant eye of the mechanical department watches for the warning signs that a bowl or mantle is ready for replacement due to wear or cracking. When that time comes a spare part is swiftly installed to avoid a lengthy operating delay, and the weakened member hustled away to the repair bay for rejuvenation.

At Creighton mill, for example, one of the six crushers is in for liner replacement every week or 10 days. The job of dismantling, and then installing, and zincing in a new liner takes Eddie LeBreton's mechanics only about 12 hours to complete, which means they have it down to a science.

After removal of the old liner the zinc backing is salvaged for remelting along with a quantity of new zinc. Then the bowl is thoroughly cleaned and the new manganese steel liner, tapering in thickness from 2 to 3 inches, is

installed with bolts in such a way as to leave a space of about $\frac{3}{4}$ of an inch between it and the bowl as a receptacle for the zinc. While the underside is being packed to prevent the zinc running through, and the new liner tightened in place with impact wrenches, other mechanics are putting the heat to about 1,000 pounds of zinc, reducing it in a little over two hours to the consistency of milk. Before introducing the molten zinc all traces of moisture are removed from the liner and bowl by preheating with a big oil-burning blow torch, eliminating the hazard of sputtering on contact. During the entire operation the men are protected with proven safety equipment.

A funnel arrangement consisting of a large metal cup drained by two tubular legs about 4 feet long, in the form of a V, is set in place with a leg inserted between bowl and liner on either side. A crane then suspends the pot of molten zinc above this assembly and a hooded and fully protected mechanic operates the wheel which tilts the pot, pouring the metal into the cup and so through the legs into the space between the bowl and the liner. In a short time the level of the zinc reaches a predetermined mark, after which the funnel arrangement is removed and two men, looking like visiting firemen from Mars, ladle in the few remaining pounds necessary to complete the "sandwichfilling" job. After a short cooling period the bowl with its new zinced-in liner is ready for its next turn in service. A similar procedure is followed for pouring the zinc cushion between a new mantle and a head.

Bowl and head surfaces are frequently pitted, indented, and rough after their strenuous service, making a flush fit practically impossible without a lengthy and costly grinding and machining job to smooth out the large grinding surface. In lieu of this the molten zinc as it flows over the head or bowl, serves the additional purpose of levelling the rough spot and providing a smooth seat for the new liner or mantle. Crusher manufacturers are experimenting with other methods of seating a liner but old hands at the crushing plants are of the opinion that they'll be zincing bowls and heads for a long time to come.

The zincing operation is an almost daily occurrence somewhere at Inco, since in addition to the six cone crushers at Creighton mill the Copper Cliff crushing plant has nine more and the mines have eight besides several jaw and gyratory crushers, all of which require some form of zinc backing. Powerful equipment is needed to shift the parts of these huge machines for servicing since, for example, the head and mantle of a standard 7-foot crusher weigh 14 tons and the bowl and liner 13 tons.

Telephone Numbers of Inco Medical Centre

The telephone numbers of the Inco medical centre in Sudbury are:

Day

37164

After 6.30 p.m. Nights, Sundays and Holidays

37166

Why not make a note of these numbers now on your special telephone list?

The Front Cover

It was back last May that the Triangle's cover picture showed a fishing scene at the rapids on the Wanapitae River where it's bridged by the old Burwash Road, with intrepid angler Orest Andrews silhouetted against the back-lighting.

On New Year's Day the photographer returned to the scene of the — er um — triumph and caught the view which appears on the front of this issue. The rocky bank had taken on a soft white gentleness, in striking contrast to the untamed tumult of the roaring rapids.

THE KINGDOM AT HAND

You do not need to tour the earth To know the sky is wholly blue; The person of the humblest birth, Has all the heaven in his view.

Three Frood Mine Crews Crash 100,000-Safe-Shifts Barrier



Second Time for Stu McKenzie's Electrical Dept.

Unique among the many fine safety achievements that have kept Frood mine in the headlines over the years was the one that went into the records recently when no less than three different groups crashed the 100,000 - safe - shifts barrier and at press time were still zooming on upward.

Stuart McKenzie's electrical department, Reg Edmunds' shift in the machine shop, and George Kampman's underground shift were the three crews that won recognition for distinguished workmanship.

While the Frood mine collectively has hit the 100,000-safe-shifts mark several times in the past, only three other members of supervision have led their individual groups into the charmed circle, George Deschenes, Russ Empi, and John Sundquist.

Setting safety records is no novelty to Stuart McKenzie's men. Prior to their last lost-time accident in October, 1951, they had piled up a total of 134,637 safe shifts. Their present record of 103,328 safe shifts was reached by the end of December, 1956, and of course they are still going strong. In the past 25 years, Stu states proudly, his department has suffered only three lost-time accidents, a real tribute to the men, their supervision, and the safety department.

Another maintenance supervisor with a top-grade safety record is Reg Edmunds, machine shop foreman. It was in July, 1948, almost 8^{14} years ago, that his shift were charged with their last lost-time accident. To the end of December, 1956, a total of 112,358 safe shifts had been credited to Reg and his safety-conscious crew. Although it's slow going with them, since they tally only about 55 to 60 shifts On their way underground for another safe shift are the members of George Kampman's safety-conscious crew at Frood mine, in the picture on the left. George himself, proud as punch of his men's fine safety record, is at the right in the front row. The picture on the right shows Frood machine shop foreman Reg Edmunds (kneeling, left) with three members of his shift which also recently completed 100,000 safe shifts, Frank Tessier, George Lockhart, and George Pitman.



Listening to a safety talk by chief electrician Stuart McKenzie at Frood are some of the members of the electrical department which recently for the second time scored 100,000 shifts worked without a lost-time accident. In the front row, left to right, are: Howie Ringer, Leo Hamilton, Ernie Stelmakowich, John Musico, Cy Hughes, Oliver Neitaanmaki, Doug. Brankley; back row, Larry Fielding, Albert Wilkes, Frank Graham, Elmer McVey, Ernie Wagg, Berry Charsley and George Blackmore.

a day, they have their sights firmly set on the next 100,000. An underground shift boss for

An underground shift boss for more than 10 years, George Kampman was a very happy fellow as he led his shift past the 100,000 mark after almost 8½ years of steady effort. George's crew were charged with their last lost-time accident back in July, 1948. To date they have a string of 108,511 safe shifts to their credit. Accomplishing this under the variety of working conditions encountered is a reflection of the careful attention consistently given to safety precautions by George and his men.

All Inco joins in heartiest congratulations to these three outstanding groups of employees on their achievements, and hope they will keep up the great work indefinitely.

Whether it is easier for 100,000 men to work safely for one shift, 100 men to work safely for 1,000 shifts, or one man to work safely for 100,000 shifts, is a subject that will start an argument in any lunch room. But Frood's safety engineer, Vern Ritzel, says he'll go along with any or all of them as long as they produce the results.



International Nickel on December 21 confirmed that preliminary construction has commenced on a new 121_{2}° -million concentrating plant.

Located on a site adjacent to the Company's Levack mine, the mill ment of concentrates as compared with the much greater volume of ore.

Contract for the new mill buildwill have a rated capacity of 5,000 tons per day. Its erection forms part of a continuing program by the Company to provide for more effective utilization and more efficient treatment of the Suubury ores.

Unlike the Creighton mill, which produces a bulk concentrate pumped to the Copper Cliff reduction plant by pipe line, the Levack mill will produce both nickel sulphide and copper sulphide concentrates. The nickel concentrate will be treated at Inco's Coniston smelter, replacing part of the present feed to that plant. The copper concentrate will be treated at Copper Cliff. Important advantages of the new arrangement will include the providing of sand fill for Levack Mine from the mill tailings and significant savings in transportation costs by the rail shiping has been let to the Foundation Company of Canada. Total costs of the project, including equip-ment, is estimated at \$12½ million. The plant is scheduled to go into operation in 1958.

INCO TRIANGLE

Go to Manitoba With Old HS165

Arthur Lye may be nudging 70 and long an Inco pensioner, but he wishes he could help the Company develop its new frontier in northern Manitoba. Recently he wrote to R. H. Waddington at Copper Cliff:

"I was indeed interested in the news of the Company's expansion for that part of the country. It has a particular interest for me, if what I heard is true. I heard that the hoist which I operated for 30 years is being sent to Moak Lake to begin a new life in a new place. I wish I could go with it."

No better hoistman than Arthur Lye could man the controls of HS 165 when it goes into action on development work at Moak Lake. He operated this veteran hoist at Garson No. 1 shaft from 1911. when it was installed there by Mond Nickel Co., until 1942, when it was dismantled and he was transferred to the new No. 2 shaft.

Bob Jack and Ed Young were other hoistmen who took their regular shift on HS 165 during its all-purpose service at Garson. It has a fine reputation for smooth and reliable performance, although its drum diameter of 7 feet and rope pull capacity of 16,880 pounds are modest measurements indeed when stacked up against today's standards; the ore hoist at Frood-Stobie No. 8 shaft, for instance, has 14-foot drums and a rope pull rating of 85,000 pounds.

HS 165 was later used at Murray in preparing the old British-American No. 1 shaft for use as a return air raise in the present operations. It has also seen service in exploration work at the old Crean Hill workings. Now, spruced up with new gears and a bright coat of paint, it's away to Moak Lake just as Arthur Lye says, to be freighted in over the ice by tractor train and set up for servicing development operations in Inco's great new mining project.

What Arthur really wrote to say, when he started this chain of reminiscence, was that he and Mrs. Lye extended best wishes for Christmas and the New Year. They had received the Company's greetings in a personal visit from Alex Crossgrove, director of per-

Wishes He Could Levack's Public Library a Model of Neatness and Efficiency



Re-established in the Employees Club, which was completely renovated following damage by fire, the Levack public library is a model of neatness and efficiency as the above photo indicates. Its shelves are stocked with public instary is a model of nearness and enciency as the above photo indicates. Its sherves are stocked with 2,750 new books — 750 fletion, 550 non-fletion, and 1,450 juvenile, which have a current monthly circulation rate of 2,500 books. Open Monday, Wednesday and Friday evenings, the library has 480 juvenile members and 478 adult members. It provides an excellent service to the fast-growing town of Levack. Seated at the left above is the acting librarian, Mrs. Jim McCoy, and standing at the opposite end is E. W. Lawrence, chairman of the library board.

sonnel, which they greatly enjoyed.

And what Arthur didn't say, for obvious reasons, was a bit of news that reached the Triangle from another source: one day in De-cember, during their regular daily cribbage match, Mrs. Lye gave him a trimming he'll never be allowed to forget by counting the first perfect hand of 29 that either of them had ever seen.

Another pensioner who in acknowledging the Company's greet-ings, both festive and financial, mentioned the Manitoba development was William Larocque of Peterborough, who before his re-tirement in 1952 was a maintenance mechanic in the Copper Cliff mill. "I have read with great in-terest of the Company's new plans in Manitoba," he wrote. "I hope it will be as good as the Sudbury district, and that is something."

Miss Edna Browne of Toronto.



Held Stag Dinner in Honor of Sandy Kennedy When Sandy Kennedy stepped into pensioned retirement at Copper Cliff the research department staff held a stag dinner party at Cassio's in honor of their building's popular caretaker. In the above head table group are Morley Grigg, spectrographic and x-ray department; L. S. Renzoni, superintendent of research; Sandy Kennedy, and Harold Borland, chief analytical chemist.

formerly secretary to the vicepresident, also wished the company success with "its immense new venture in Manitoba."

Warm appreciation of the way the Company looks after its pensioners was expressed in a letter to Howard Houser of the Port Colborne office from Mrs. Clarence (Ada) Morrison, who now resides in St. Catharines.

"I have felt for some time," Mrs. Morrison wrote, "that I would like to voice my appreciation and to thank Inco for the Christmas gift cheque of twenty-five dollars which I have received each Christmas and for the security I have enjoyed in having even a small amount coming to me each month, but to have my P.S.I. and Blue Cross looked after for me is such a comfort, and means so much to me, I felt I just wanted to tell you and I also get the Triangle all the time, and always look eagerly to see if there is anything in it about someone whom we knew and quite often there is."



carpenters I have ever seen," said Harold Bruce, carpenter foreman at Copper Cliff, in speaking of Wilmo Marjamaki, who has retired on pension. "He always carried a job through to completion no matter what work was involved. He understood mechanics and metals as well as wood and could work with most materials. Could outdo a patternmaker on some work " work

Learning his trade in a part of Finland where almost everything from sleighs and water tanks to many household articles was hand made from wood, Wilmo became a skilled craftsman with saw, spokeshave, chisel, plane and file. Coming to Canada in 1927 he took a job as carpenter with Fraser Brace in Montreal. With them he worked at building factories, a power house, a large church.



MR. AND MRS. MARJAMAKI

He was employed on the construction of the copper refinery and the acid plant at Copper Cliff, then for some years on housing in the district. This activity he interrupted to have a one-year fling at running a boarding house in Copper Cliff, a life he found too complicated for a steady diet. He was an Inco carpenter from 1939 until his recent retirement on disability pension, and during that time handled many intricate and unusual jobs that established his reputation as a craftsman.

Wilmo made a trip back to Finland for the Olympics in 1952, and again in 1955 with his wife who, before their marriage in 1931, was Olga Yelmaniemi of the Soo. They live at Long Lake in an attractive little home that reflects Wilmo's expert carpentering and his wife's spotless housekeeping.