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Ralph D. Parker

"I have the honor to present to you Mr. Ralph D. Parker, mining engineer, explorer, industrialist, patron of the arts."

So spoke Dr. Harold Bennett at the first convocation of Laurentian University of Sudbury, in proposing for the degree of Doctor of Laws (honoris causa) the man whose "wisdom, patience, and tolerant imperturbability" had brought about the union from which Canada's only bilingual federated university emerged in May of 1960.

"To supplement the honorary degree," the assistant president of Laurentian said in concluding his eloquent citation, "We should like to propose also for Dr. Parker an armorial escutcheon. It should be, of course, the Laurentian Shield, bearing on a field of nickel argent



Ralph Parker is seldom happier than when greeting old Inco friends at meetings of the Quarter Century Club.

the figure of a bold knight errant, carrying a lance tipped with the latest Inco alloy, poised not so much to slay dragons of the past as to spearhead metallurgical discoveries of the future.

"And the shaft of the spear should carry a knightly pennon inscribed with the words, PARKER AD OMNIA ARDUA VOLENS PARATUS, which in plain English means PARKER, FOR ALL TOUGH JOBS BOTH READY AND WILLING."

Retired last month as senior vice-president, the position he had held since 1960, but continuing as a director and special officer of International Nickel, Ralph Douglas Parker has made a distinguished career of shouldering big jobs and carrying them through to success.

His achievements in the fields of mining and exploration have been of wide significance to the industry and to the benefit of Canada at large.

First to Receive New Award



Ralph D. Parker became the first recipient of the Chairman's Citation, the new Company award to honor distinguished service to International Nickel and the nickel industry. The citation carries with it a medallion struck in palladium and bearing a portrait of the recipient. Chairman Henry S. Wingate is shown above with Mr. Parker following the impressive presentation at the annual meeting of the Company in Toronto on April 17.

The Citation

For his dedication and devotion to International Nickel, for the leadership and drive which have marked his service with the Company, and in grateful recognition of the many successes which can be attributed to his efforts on its behalf.

His achievements as engineer, administrator and executive have enhanced the Company's vision of itself and of the destiny of its products and have been reflected in the notable advances made in the development and enlargement of the Canadian nickel industry.

Under his direction—in peace as well as in long periods of international emergency—far-reaching exploration programs have been conducted and new horizons for nickel production have been sighted and attained.

It would be difficult to encounter an activity of International Nickel involving the discovery or winning of nickel that does not bear an imprint of his personality, or which has failed to benefit from the keenness of his mind and the wealth of his experience in the mining industry.

As a signal example of his accomplishment, it may be recorded that, while overseeing the Company's operations in Ontario, the world's largest source of nickel, he captained the discovery of other deposits of nickel at what is now Thompson, Manitoba, and the development there of the second largest nickel operation in the world. And more than that...

How justly proud Ralph Parker may be to know, as is the case, that it is he who is the chief architect of the existence of Thompson itself—the best-planned, fastest-growing and most flourishing community in the great Canadian North.

From the beginning of his association with the Company in 1928, Ralph Parker has achieved the immense respect and won the warm affection of those privileged to work in close association with him. Firm in character, strong and swift in effort, rich in accomplishment, he is a man of whom it can indeed be said "Experto Credite"... Look to him for he has proved himself.

Mining Was In His Blood

Mining was in Ralph Parker's blood when he was born at Lockeford, California, on April 27, 1898.

His paternal grandfather, who hailed from Kentucky, was a Forty-Niner; his father was the first white child born at Moke-

lumne Hill, in the early days of the California gold rush. The romance of the great Nevada silver camps like Virginia City and Carson City, where his family had followed the beckoning finger of fortune, colored his boyhood dreams.

Graduating from the University of California in 1921 after a tour of service in the United States Army, he immediately entered upon the profession of mining engineering. Grubstaked by a syndicate of steam railway engineers, he and a classmate, Bert Butler, spent eight months exploring old underground placer workings up in Butte County, but found no encouragement for further development there.

An acquaintanceship with Joseph Errington, who had formed a syndicate with three other directors of McIntyre Porcupine Mines, Limited, J. P. Bickell, J. B. Tudhope, and F. H. Shepherd, and Hollinger director R. S. Dunlop, ripened into Ralph Parker's next assignment and led him to his destiny in Canada. Shipping a churn drill from San Francisco he headed north to Cherry Creek, B.C., where Errington, et al, had a placer property to mine and explore. There were two projects, one hydraulic, the other testing with the churn drill the lower placer areas that were prospective dredging ground.

Reversing an old saying, the operation died but the patient was a success. His employers were very impressed by the cut of their young engineer, and when the Cherry Creek Mining Company was shut down after proving unprofitable, he was brought on to McIntyre Porcupine Mines at Schumacher as assistant mine superintendent.

Introduced Square-Settling

At the McIntyre he soon displayed the driving urge for improvement that has been the hallmark of his career. When a pecu-



Mrs. Parker as she unwrapped a gift presented on the occasion of her departure for Toronto with her husband in March, 1958.

liar ground condition developed in some fairly high grade stopes, making mining by the prevalent shrinkage method extremely difficult, he went back to California to refresh his memory of operations in the old Argonaut and other mother lode mines where he had worked as a student. He returned to design a square set of round native spruce which solved the McIntyre problem very nicely. This, in 1924, was the first application in Eastern Canada of the

'Operation Last Spike' a Signal Event



A high point in the career of Ralph D. Parker was recorded by this photograph, taken on October 20, 1958, which shows him handing to Premier Douglas Campbell of Manitoba, a pure nickel spike for the last tie of the new 30-mile railway from Sipiwesk to Thompson. In a frontier setting 400 miles north of Winnipeg, ringed by an assembly of construction workers and leaders of state and industry, the premier hefted a tracklayer's maul and drove home the final spike of a railway link with the outside world.

square-set method which was to have a profound influence on the fortunes of many large mining companies, among them International Nickel.

In 1928, at the invitation of Inco vice-president John L. Agnew, R. D. Parker came to Creighton Mine to succeed retiring William Rolph as superintendent.

Creighton was a mine to catch a young man's fancy. An historic old producer, it stood hard by the spot where, in 1856, the first hint of the Nickel Belt's mineral wealth was recorded in the sharp deflections of provincial land surveyor A. P. Salter's compass. It had been a great mine for "firsts", having also for example had the first underground crusher in Canada installed on 6 level in 1914. In later years it was to be the scene of many outstanding innovations and developments.

But now Creighton was hard pressed. The great business boom leading up to the crash of '29 had suddenly boosted the demand for nickel. Inco's only operating mine at the time, Creighton had to take the full load. Here was a situation made to measure for Ralph Parker, who dearly loved a challenge and revelled in hard work.

"Scrounging" for Ore

Creighton old-timers recollect how their new superintendent pitched in to a long shift seven days a week, pushing the mine's hoisting capacity to the limit as he "scrounged" additional ore to meet the demand while a new ore-body was being developed. Again calling on the square-set technique, he used it to mine right out into the old rock-filled "glory hole" of Creighton's earliest days in order to recover high grade lenses of ore left in footwall embayments during regular shrinkage stoping. Then, investigating old shrinkage stopes in the upper part of the mine, he

found large tonnages between the boxholes that had never been drawn off. He went back up and reminded these with square sets to recover the broken ore. Under such vigorous and resourceful leadership Creighton stoutly defended its honour in the production emergency.

Neither square-setting nor Ralph Parker ever looked back. It spelled success for Inco's policy of maximum ore recovery and became a standard method in the Company's underground mining operations. Its sponsor went on to ever-increasing responsibility and service to his company and to the community.

He took over as superintendent at Frood in 1929, shortly after the merger of the Mond Nickel Company with International Nickel had paved the way for full and orderly utilization of that great orebody. The new No. 3 shaft had been sunk, and an 1800-foot crosscut driven on the 2800 level to make contact with the sulphide mass which deep drilling had revealed to be one of the most exciting finds in the history of Canadian mining.

Huge Modernization Program

Ralph Parker remained at Frood for two years, setting high standards of performance for all phases of the new operation. Then, becoming superintendent of mines, he embarked on the long-range program of modernization and expansion that over the years brought Inco to the forefront of the world's mining companies. When he moved his office from Copper Cliff to Toronto in 1958, as vice-president in charge of Inco's Canadian operations, he had directed the building of completely modern new plants at all its mines in the Sudbury district, Creighton, Frood-Stobie, Murray, Levack, Garson, and finally Crean Hill. During his 30 years in the Nickel

Belt the first five of those mines had produced over 257 million tons of ore.

Dramatic highlights studded Mr. Parker's long record of solid achievement. Probably one of the greatest was during World War II when, as general superintendent of the mining and smelting division, he captained the great Inco organization in its crash program for enlarging mining and plant facilities to provide the increased supplies of nickel vitally required by the Allies. Those were the days when the great Frood-Stobie open pit was pushed to the utmost and the company's mines supplied a peak of 40,000 tons of ore daily.

The stupendous war effort left its mark on the company's operations. The Frood-Stobie pit was nearing exhaustion, and plans had to be laid for supplying most of the ore requirements from underground. The transition to an initial objective of 13,000,000 tons annually, all from underground, was successfully accomplished through the introduction of bulk mining methods and equipment under Ralph Parker's guidance.

A Leader in Safety Promotion

It was inevitable that a man who insisted so firmly on high performance should place strong emphasis on safety. Mr. Parker's creed in this respect is well-known: "I believe that safety must be built into every phase of our operations until it becomes just as accurate — and accepted — a measuring stick of our success as volume, grade, or dividend." Sulting deed to creed he built into the Inco organization a continuing accident-prevention campaign that is regarded as a model of such promotions. Job instruction, regular safety contacts between men and supervision, standard safety practices for all work, regular safety inspection of machines and equipment, First Aid training and strict good-housekeeping are cardinal principles of the program. Its success has been reflected in the consistently low accident rating attained by Inco mines and plants.

In the design and development of mine hoist ropes, safety appliances and other mining equipment, his leadership is demonstrated by the excellence of such installations at the various plants of the International Nickel Company. His determination to improve all types of hoisting equipment, and the emphasis that he has always placed on the precise and conscientious maintenance of shafts and hoisting equipment, has had a wide influence.

Carrying his safety crusade into

the activities of the Ontario Mining Association, of which he is a past president, Ralph Parker worked with such leaders as Robert Dye of Dome, Ralph Healy of Wright-Hargreaves, and E. W. Todd of Lake Shore, to bring about important changes in the provincial mining regulations governing practices where the safety of men is directly involved.

Led Ground Control Studies

His interest in the field of ground control, and particularly the problems inherent in the mining of highly stressed ore-bodies predisposed to rock bursting, led to the highly effective sequential approach to ground removal. Investigations contributing to the development of the sequential programming of mining openings, as sponsored by Mr. Parker, form the basis of this practice as it is now applied in many parts of the world.

Research in drill steel composition and manufacture was another of Mr. Parker's earliest and continuing interests. As a result of investigations initiated by him, drill steel is now manufactured in Canada which is the equal of any produced in the world. Similarly, he established a policy of co-operating with manufacturers by arranging tests in his company's mines of new ideas and new equipment, thus spurring the progress of the industry.

For over 30 years Mr. Parker has kept in close touch with the development and improvement of the Ontario Mining Act. Through his persistent encouragement and sound judgment many of the pitfalls so common to the development of mining legislation have been avoided, not only in Ontario but in all the provinces.

Nothing But the Best

Did this man of dynamic drive and free-wheeling action never relax? Indeed he did, but even in recreation he was often pursued by his flair for doing things in a big way. Take golf, for instance. Where the average player would be eminently satisfied with one hole-in-one in his lifetime, Ralph Parker has scored two, and the second was a "called" shot in the best Babe Ruth tradition. When the other three players in his foursome all put their tee shots on the ninth green at Sudbury's Idylwyld course, he said to his partner, C. H. Stewart, "The only way to beat these fellows is to sink it right from here," which he thereupon proceeded to do.

He liked nothing better than bringing his big boat back into

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Purvis Rink Take Trophy

President Dorothy Smith made the presentation of the T. M. Gaetz trophy to the champions of the Business Girls League at their annual winking at the Copper Cliff Curling Club. The victorious foursome are shown here: Dorothy Purvis (skip), Jean Findlay, Sandra Gentle, and Anne Douglas.



Seventy players took part in the schedule and enjoyed a fine season.

Inco Club League Champs Receive Trophies; Ida McKain Honored



INCO CLUB LEAGUE ROSE BOWL
(League Champions):
From front, Mary Price (captain) and Muriel O'Connor; Irene McChesney and Chris Gowan; Marie Campbell and Edith Earl.



STEWART TROPHY
(“A” Section Champs):
From front, Mary Amos and Rachel Burns (captain); Nellie Milson and Betty Tafe; Jean Villeneuve and Beth Giambattista.



SHEEHAN TROPHY (“B” Section Champs): Ollie Edwards, Edith Stephenson, Anne Eveline (captain), Jean Moslanko, Nellie Kurlicki. The trophies and individual prizes were presented by G. S. Jarrett. Vern Tupling and “Kissing Spike” Boal at a greatly enjoyed banquet to which the husbands were invited, held at Sudbury Legion Memorial Hall.



INDIVIDUAL STARS: “Never again,” said Ann Palmateer (front centre) on being presented with a trophy for the lowest score of the season. Other stars: Pat Basso, high triple, 876; Edith Earl, high average, 192; Nellie Kurlicki, high single, 295. Special recognition was given popular Ida McKain, who hasn’t missed a season since the league was organized in 1938. She has been captain of the Rose Bowl team three times, almost made it again this year. Inco Club chairman G. S. Jarrett, with whom she is shown on the right, presented her with an engraved tray.

Ralph D. Parker

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harbor on a wild and stormy night after a day's fishing or hunting along the North Channel of Lake Huron. Latterly, owing to the pressure of business, he and Mrs. Parker, the former Mina Bayne Todhunter whom he married at Schumacher on January 1, 1930, were only occasionally able to enjoy their beautiful island camp in Whitefish Bay, Manitoulin, and in 1961 they presented it as a gift to the Algoma Diocese of the Anglican Church, to be used as a vacation retreat for members of the clergy and their families. For many years it was a scene of gracious and friendly hospitality, as was their home in Copper Cliff and now is their handsome residence at 435 York Mills Road, Willowdale.

A man who takes warm delight in friendships and talk of the early days, Ralph Parker is seldom happier than when surrounded by veteran employees at the meetings of Inco's Quarter Century Club. Many of them followed him down from the Porcupine camp.

“Parker, how you not get any older?” was the cheery greeting of a Finnish miner overheard at a recent gathering as they shook hands and fell to reminiscences of old times at Creighton.

“He is a real man's man and always gave you a straight answer,” was a Frood miner's comment. “Sometimes he seemed gruff and crusty but he had his soft side too, and nobody knows how many people he helped on the quiet.”

Strong Community Spirit

He plunged into community projects with the same drive and vigor that he put to his work. A ball player in his youth, he led Creighton to a Northern Ontario championship, and was an active booster of other sports. He is one of the original directors of Sudbury's

Idylwyde Golf Club, and one of the builders of Sudbury Memorial Hospital, of which he is honorary president. He is chairman of the board of governors of the new Laurentian University, to which he and Mrs. Parker presented its first private bursaries. He is a director of the Canadian Opera Company and has chaired its annual fund-raising campaign.

Twice he had the distinction of entertaining royalty at Frood Mine, escorting Queen Elizabeth on an underground tour when she and King George VI visited the property in 1939, and again acting as a host when Queen Elizabeth II and Prince Philip were its guests in 1959.

It was flying that turned out to be Ralph Parker's favorite recreation, and, appropriately enough, it was flying that led to his greatest achievement.

He got his pilot's license in 1945 and developed a keen interest in aviation. About a year later people in the Sudbury district were startled one day to see a strange bomb-shaped object trailed on a cable beneath an aircraft that flew back and forth across the area in a methodical flight pattern. Soon it became known that Inco had sponsored the world's first commercial airborne magnetometer survey of mineral deposits, testing its use over the known ore occurrences of the Sudbury Basin.

Embarked on a hunt for nickel in northern Manitoba, R. D. Parker had seen the possibilities of this technique in exploring a country where vastness and inaccessibility presented a prospecting problem of staggering proportions. If it could trace enemy submarines it might find ore.

An Historic Breakthrough

The “air-mag” swiftly proved its usefulness in detecting magnetic anomalies beneath northern Manitoba's waterways or in valleys deeply buried under glacial debris. Mr. Parker then organized an Inco research team to tackle the development of instruments that would select from these anomalies those more favorable for detailed follow-up investigation by nickel-seeking ground parties. The result was an historic breakthrough in the science of geophysical and airborne electromagnetic survey. Its importance has since been documented in major explorations across Canada and in many other countries and continents.

Thus newly armed, the painstaking search of northern Manitoba was pressed forward under Mr. Parker's personal direction. Inco's sky-riding prospectors flew as much as 28,000 miles in a single year while on the ground its geologists and geophysicists, working with their diamond drill crews, fought the muskies by summer, the intense cold by winter, the loneliness and the discouragements. It was a quest that took 10 years, cost \$10,000,000, and involved at least 10,000 disappointments.

Then came the break. One afternoon in February of 1958, an exultant Ralph Parker got on the phone at The Pass and called the president of the Company at New York: “Harry, it looks like we've hit the jackpot!” His superb faith, courage and determination, backed by the unwavering confidence of

Grand Wind-up



Rated on the per capita intake of hot dogs and pop, the annual party of the Copper Cliff minor hockey league, held at the Legion Hall, was a gurgling success. The happy young puck-chasers, another big season behind them, relaxed with their coaches and "broke training" in no

uncertain manner. On the left above Billy McDonagh and Johnny Heale make their third pass at the hot dog counter, where Mac Forsythe serves them. The picture on the right shows some of the 150 boys who were guests of the Copper Cliff Athletic Association.



WINNING CAPTAINS AND COACHES: Smiling on the left are the head men of victorious teams in the Copper Cliff league: captain Bruce Belliveau and coach George Falconi, Montreal Canadiens, pee-wee division; captain Allan Moxam and coach Rolly Spencer, Chicago Black Hawks, bantam division; captain Chris McClellan and coach Harry Kovalchuk, Toronto Maple Leafs, minor bantam. **SOME OF THE WORKERS:** In the picture above are some of the cheerful volunteers who helped ring up another successful season for the kids: front row, Jay McCarthy, league convener; Roy Maud, manager of the Copper Cliff team which won the Nickel Belt midget loop championship; Bernie Smythe, coach; back row, Rolly Wing and Dave Newell, referees; Gord McLean, secretary of the league sponsors, Copper Cliff Athletic Association; Cliff Wing, assistant convener; Charlie Marcolini, coach.

the Company's directors in his judgment, had paid off. Inco had discovered the Thompson orebody.

Construction of the model \$185,000,000 Thompson plant and townsite in the heart of a wilderness 400 miles north of Winnipeg, a saga in itself, was soon underway. Here was a worthy monument to a man of great stature.

"When the new Frood shaft came into operation in 1929, we were mining at the rate of a million tons a year, and it was said that we had enough ore to last a century". Mr. Parker recalled in conversation with a friend, "but at our 1960 rate of production it would last us less than seven years." Thus he pointed up the need of long-range planning and continuing exploration which has always been a basic policy of his company. The Thompson project permitted Inco to continue its expansion of its world markets while at the same time allowing a leveling off at its Sudbury district plants to protect the life of that huge operation. But, looking to the future, the search for major

new sources of nickel in Canada and elsewhere has been maintained on a large scale for over a quarter of a century.

Flew 100,000 Miles in a Year

As president of Canadian Nickel Company, Inco's exploration arm, Mr. Parker directed this search. Africa, Australia, central South America, and the South Pacific Islands have been among his frequent ports of call. Often he has flown 100,000 miles in a year, not without dubious thrills such as his experience when a commercial airliner, both engines dead, plunged down through a dense fog, missed a tree by 20 feet, and belly-landed in a field of cotton without a scratch to a passenger.

Many honors and directorships have come to Ralph D. Parker in recognition of his talents and judgment.

A naturalized Canadian since 1932, he yields to no native son in love of country and pride of citizenship.

Typical of the vision and spirit that silhouette the professional profile of this man of action were

remarks he addressed to the Toronto branch of the Canadian Institute of Mining and Metallurgy in March, 1961:

"A few years ago, Canadian mines were regarded the world over as leaders in the application and development of new ideas and equipment in the industry. What has happened to us? Have we become too complacent, or are we slipping into the comfortable role of copy-cats? The development of light steel and air leg drills, the raise climber and the friction hoists, all had to be sold to us. Certainly we ought to be able to come up with new equipment and methods to find and mine our own ores more economically and completely. We need new and better tools to explore the vast, exciting potential of our mineral heritage. We must tackle the problems of rock bursts and increasing temperatures as our mines become deeper. We need sweeping action in the metallurgical field, where there are unlimited opportunities for advances in equipment and processes for improved costs, greater recoveries, and finally bet-

ter products. We need imagination.

ANCIENT NICKEL

In composition, coins issued 2,000 years ago by the Bactrian peoples of ancient Asia are not unlike the present United States five-cent piece. Both contain 75% copper and 25% nickel.

POWER FOR TELSTAR

Transmissions from Telstar, the world's first experimental communications satellite, are directly powered by a 19-cell nickel-cadmium storage battery.

RUST RESISTANCE

The resistance of nickel to corrosion in the atmosphere and in many corrosive media was established early in the history of the nickel industry and was responsible for the first large use of nickel — in electroplating.



Boston Bruins Licked the Platter Clean in Creighton Kid Hockey League

While the Boston Bruins didn't fare too well in the big National Hockey League last season, they were tops in Creighton's Little N.H.L.

Not only did Creighton's pint-sized Bruins win the league title and the playoffs, but their goalie, young Billy Peacock, won the Ben Elmond trophy for best goals-against average, and their star forward, Peter Vagnini, received the Jack Pigotti trophy as the league's leading scorer.

At a very successful wind-up

banquet at Creighton the jubilant Bruins had the lion's share of the spotlight. They are pictured here, backed up, as they were all season, by a dedicated group of men sharing in this fine hockey effort.

From the left the young hockey stalwarts are: Pat Seguin, Brian Minard, Lloyd Olson, Billy Peacock, Saul Sherbanuk, captain Peter Vagnini, Bobby Waytowich, Allen Jeffkins, Ronnie and Donnie Cormier.

Behind them, from the left, are Bruins coach Lionel Cormier; Inco

assistant general manger J. A. Pigotti, who presented his own trophy; superintendent of mines J. McCreedy, himself an ex-N.H.L. star and one of the guest speakers; Gene Roy, Creighton Mine Athletic Association hockey representative and league organizer; E. A. Mumford, superintendent of Creighton mine; Ed Cayen and Bill Dumencu, Creighton Mine Athletic Association hockey committee members; Stan Fera, donor of the Fera Memorial trophy (the Stanley Cup of that league); the Providence

Reds' great goaltender Eddie Giacomini, who gave the boys some sound and sensible advice; and Creighton Mine Athletic Association chairman Munro Smith.

Creighton's minor bantam and bantam teams were all guests at the banquet, which was held at Cabrini Hall and saw about 110 boys and an equal number of adults enjoy a delicious meal and an excellent program. Master of ceremonies was school principal Gordon Whalen.

Edward Lampi

When Edward Lampi got off the train at Sudbury in 1911 it wasn't much of a town, he recalled "no streets and all mud." Hiring a team of horses he drove to Copper Cliff where through his uncle he soon got a job working for the town. He is now a member of Inco's happy family of pensioners, having lately retired from Vic Baker's town gang.

His first job with the town of Copper Cliff lasted until 1913, then he spent the next couple of years at the old Copper Cliff no. 2

and Garson. After that it was back to the town of Copper Cliff, and then in 1942 he rejoined Inco. A plumber helper in the town gang for many years, he liked his job.

He married Sofia Halmis in 1917. Their son Armas is a carpenter at Copper Cliff and their daughter

Aini (Mrs. O. Eklund) lives in Sudbury. Their one granddaughter rules the grandparental roost and Edward loves it.

The Lampis have lived at the same location on Succo Street in Copper Cliff for 42 years, and the little two-room place they bought

originally has blossomed into a fine modern home. Ed did much of the work himself and enjoyed it.

The Lampis get a great deal of pleasure from their summer camp at Long Lake and plan to spend much more time there now.



Mr. and Mrs. Lampi

mine. Later he pitched bundles in the western harvest, tried construction work, then worked at various times at Frood, Creighton

Thompson Drama Club Reading Three-Act Comedy for May Staging



Originally sponsored by the Women's Community Club, the Thompson Drama Club has staged some fine productions since its organization in 1960. Under the talented direction of Margaret Price a cast has been working hard on a three-act comedy to be produced this month. Shown above in rehearsal are Lloyd Morris, Margaret Morris, Bill Taylor, Dorothy Jarvis,

Joanne Jordan, Audrey Tappin, Fred Price and Annette Monteith, with Mrs. Price at lower right. Members of the club executive are Mrs. I. Kjarsgaard, president; Mrs. L. Rustige, past president; Lloyd Morris, vice-president; Mrs. Kay Holt, secretary; Mrs. L. Kitchen, treasurer; Ian Sparling, stage manager.



IN THE BEGINNING. Thompson started as a tiny cluster of tents, which were blown in and set up near the shore of Thompson Lake in January 1957. It took courage to crawl out of a sleeping bag in the morning with the thermometer at 50 below. When Spring arrived the bottom fell out of the temporary roads, leaving the mess shown above.



DRILLING. Here is another of the earliest pictures at Thompson, showing a diamond drill testing a rock structure at the proposed location of the first shaft. The thick bush is mostly black spruce.



CAT TRAIN. This picture was taken in the winter of 1957, and shows supplies being hauled into the mine site over the lakes by tractor train. This was a round-the-clock operation with drivers taking turns sleeping and cooking in the caboose at the end of the train. Railhead at that time was at Thicket Portage, some 35 miles away. Small trees marked the route across the lake to guide the cat drivers during snowstorms and at night. Some individual pieces of equipment, such as three-quarter yard American shovels which weighed 30 to 40 tons, were brought over the ice without difficulty, but following such a trip there usually was a delay of two to three days to allow cracks which developed in the ice to heal before attempting to transport a similar weight of material.

A Brief History of The Thompson Project

An address on International Nickel's plant at Thompson, given to the Mining Club of New York by Foster F. Todd, general manager of the Manitoba division, contained a brief history of the Thompson project. We reproduce it here, along with copies of a few of the color slides with which Mr. Todd's address was fully illustrated.

Thompson is located in northern Manitoba approximately 400 air miles directly north of the city of Winnipeg. It is the second largest nickel-producing center in the free world, exceeded only by our operations in the Sudbury District of Ontario, some 950 miles to the southeast of Thompson.

Inco's exploration into this part of northern Manitoba began in earnest in 1946 — a full ten years before the discovery of the Thomp-

son orebody. There were many disappointments during that period, and since this part of the country is practically devoid of outcrop, had it not been for airborne geophysical methods the search would have taken much longer and would have been much more costly.



F. F. Todd

At first particular attention was given to the Moak - Mystery Lakes region, as it was thought that this

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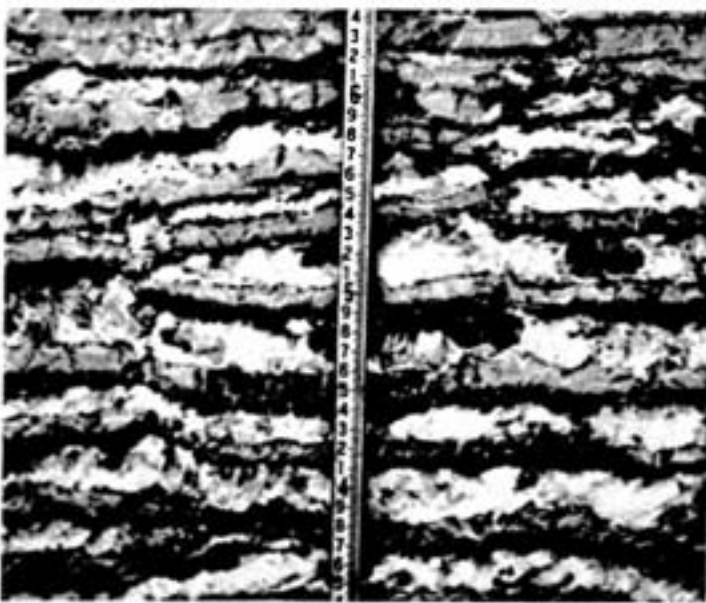


TEMPORARY PLANT. An aerial view of the temporary headframe and sinking plant at the development shaft of Thompson mine. Buildings include hoist room, changehouse, shops, warehouse. The production shaft can be seen in the distance.



THOMPSON TODAY. Here is the clean-cut completely integrated Thompson plant as it looks today, a sight that makes the visitor blink in disbelief as he arrives on the daily plane from Winnipeg. This model plant officially commenced production just four years from the date the project got underway. In the background, two miles distant, is the attractive fully-modern town, which now has a population of over 6,500.

This Is What Permafrost Looks Like



Ralph Hawkins

This unusual photograph, taken in a pipe trench in the town of Thompson, shows a section of the permanently frozen ground encountered in the area. Thompson appears to be on the southern fringe of the general permafrost area to the north, and as a result the occurrence is spotty. The deepest occurrence found at Thompson was approximately 35 feet below ground level. The picture clearly shows the alternate bands of crystal clear ice and silty material of which permafrost is composed. This frozen ground slowly thaws after the trees have been cleared, and a gradual subsidence takes place which adds to construction problems. The problem has been largely overcome by removal of the permafrost in the shallow locations, and by driving piles to refusal in the deeper areas. It is of interest that in the Inco plant area at Thompson only one small occurrence of permafrost was found, whereas in the construction of the hydro-electric plant at Kelsey, 60 miles to the north, considerable permafrost was encountered.

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area might be the most likely location for the development of a new nickel source. In time airborne geophysical exploration led Inco geologists to Moak Lake, where subsequent diamond drilling located favorable mineralization. Further intensified investigation finally resulted in the discovery of the Thompson orebody in February, 1956. By December, 1956, after 112,000 feet of diamond drilling from surface had been completed at Thompson, it was determined that a combination of ores from the Thompson and Moak mines would result in an average grade slightly higher than that produced at the Company's mines in the Sudbury district. This assured an economic operation and preliminary work was started on the Moak-Thompson project. However, subsequent favorable drilling results revealed that Thompson mine alone would be capable of meeting the planned objective of the Manitoba project. This made it advisable to postpone work at the nearby Moak mine and to concentrate on the rapid development of Thompson.

Plans for construction began immediately after the announcement by the Company in December, 1956, that it had decided to proceed with the Manitoba project. At that time there was nothing at Thompson. The nearest railroad was at Thicket Portage on the Canadian National Railway's Hudson Bay line, some 35 miles to the south. There were no roads or other means of access, except by bush aircraft operating from the small lakes in the area. Early in

January in temperatures around 30 degrees below zero the first tent was blown in and erected near the shores of Thompson Lake. From that first tent other tents were erected, and later that month as the first construction material rolled in, buildings were started and supplies were stored to carry over until a rail line could be completed in the fall of that year.

One of the first major operations was to design, order and marshal an initial 30,000 tons of equipment and supplies at this very remote area. Tractor trains working around the clock hauled this material across the frozen lakes and muskeg 35 miles from Thicket Portage to the plant site in the three winter months before break-up. Thus it was possible to carry on mine and plant development while the railroad spur connecting Thompson with the Hudson Bay line was being built.

This 30 mile spur was designed, contracted and built in 10 months, including a pile trestle over the Wintering River and a steel truss bridge over the Grass River. A considerable portion of the road was built over permanently frozen ground and except in the cut areas no attempt was made to remove the permafrost. Reballasting was necessary during the spring thaws for the next three years but since then the road bed has assumed a stable position. Upon completion of the spur in October, 1957, construction advanced at an accelerated rate.

Sixty miles to the north of Thompson at Grand Rapids on the Nelson River, the Manitoba Hydro started early in 1957 constructing

a hydro-electric plant to have a generating capacity of 100,000 kilowatts. This project included a 14-mile railway spur line through bush and muskeg country, which was laid in three months' time, and a 58-mile steel tower double circuit transmission line to Thompson. The generating station was appropriately named in honour of Henry Kelsey, one of Canada's early explorers in the area. Power from the station was supplied to Thompson just 3½ years after the start of construction.

At Thompson the first objective was to prepare the mine for production at a rate of 75,000,000 lbs. of refined nickel per year by the time the mill, smelter and refinery were completed. This required the sinking of a development shaft to the 1000-foot level, a production shaft to the 2000-foot level and approximately 180,000 feet of drifts, raises, boxholes and miscellaneous mine development.

On February 8th, 1957, the first excavation was begun for the development of Thompson mine with the start of sinking the development shaft near the center of the mining area. At about the same time a larger, permanent production shaft was started. Most of the underground development work was carried on through the development shaft while the larger and deeper production shaft was sinking.

While mine development was being carried on underground, construction of the mill, smelter, refinery and the general surface

plant was being pushed to completion. To meet schedules, steel erection was required during three winters despite the 50- to 60-degree below zero weather. Also of major importance was the hiring and training of a complete working force for mining, milling, smelting and refining from untrained personnel recruited largely from western Canadian farms. Labor turnover was high, which was to be expected with a new operation in such a remote location. Also required was the construction and operation of a campsite to house up to 2,500 men. Our camp caterer's records show that during construction the men ate 200,000 eggs per month, 1,200 bags of potatoes, 120,000 pounds of meat and 600 bags of flour.

Coinciding with plant construction, a new town was designed and constructed with complete underground storm and sanitary sewer system, domestic water supply, water treatment plant, sewage disposal plant, roads, sidewalks, hospital, schools and other basic facilities required for an initial population of 8,000 people. Our Company's contribution to the development of the community to date has been over eight and one-half million dollars.

Finally, on March 17, 1961 the first electrolytically refined nickel was produced and the completely integrated nickel plant was officially opened in the presence of a large and distinguished gathering of Canadian government and business leaders.

Lively Minor Bantams Won Kiliopp League



This is the Lively team that beat McFarlane Lake for the championship of the Kiliopp league and then went on to win the Nickel Belt minor bantam title by defeating Levack and Azilda in the playoffs. Front row, Paul Weber, Gary Neven, John Blackwell, Jerry Egers, John Wright, Brian Belliveau; back row, Johnny Hamilton (coach), Greg Hines, Michael Fahey, Bill Julian, Bob Peacock, Bob Byrne, Don Wright (manager), Barry Donnelly.



The McFarlane Lake minor bantams, coached by Don Stanley, put up a great argument before yielding to Lively. Front row, Norman Lebel, Richard Marier, Dwain Durant, Allen Stanley, Kenneth Petersen, Rheel Mallette, Ronald LaForest; back row, Keith Stanley, Armand Ouellette, John Marshall, Hector Grenon (manager), Robert Ethier, Donald Belisle, Jean-Paul Forget, John Carrey. The Kiliopp league gets its name from its sponsors, Kiwanis, Lions, and Ontario Provincial Police, and includes teams from several Sudbury area communities.

\$1,000 Award for Creighton Man



"Norm, I really enjoy doing this," said Creighton mine superintendent E. A. Mumford as he presented Norman Simpson with a suggestion award cheque for \$1,000 and congratulated him on his ingenuity. "And," added Mr. Mumford with a smile, "I hope this won't be the last time."

Norm has been working with the sandfill crews at Creighton since 1956. His suggestion concerned a modification of the sandline crossover previously in use. He has two other small suggestion awards to his credit and while at the moment he has nothing definite in mind, Norm says that

the Suggestion Plan will be bearing from him again before too long.

Right now he has nothing special earmarked for his exciting \$1,000 bonanza but chances are good that at least part of it will go to buy material to make another boat. "I guess you could say that building boats is my hobby," he said. "I've made about eight so far and sold them all."

The Simpsons live in Lively. Their only son Ian works in Hamilton. Norman has been an Inco man since 1947 and is well regarded at Creighton.

Amos Team Big Winners in Shift Bowling



Big winners in the hotly contested Copper Cliff shift bowling league at the Sudbury Inco Club was the Amos team pictured above. From left to right they are, Nap Carriere, Charlie Rafuse, Mac Biondi, Frank Chirka, Albert Amos (captain), Mike Skuro, and Karl Karkovsky.

There were 14 teams entered with the Amos team taking most of the loot. In addition to beating out Bucky Basso's boys in the playoffs they also won the regular league schedule and the high team triple with 3561; Albert Amos scored high triple, 942, and high average, 236. Ray Caverson won the high single with a fine 395

and Basso's boys rolled the high team single of 1309.

Leone Visentin

Leone Visentin made a trip to Italy in 1948 and brought back the bright-eyed Elisa Cecchin as his wife. They have one daughter Nadia, 11. Leone says he is the happiest man alive. He has retired from Coniston on full service pension. Coniston is the only place he has worked since coming to Canada from Italy late in 1926. His brother John, who retired in 1960, got him started there.

Leone put in four years with the



Old Bleachers Yield to Wreckers

As missing as a front tooth in Copper Cliff these days are the bleachers which for almost half a century stood in Nickel Park at the corner of Granite and School Streets. Little used even in the later years of the Nickel Belt

baseball league, the customers preferring to sit out on the grass on the warm summer nights, the old bleachers finally bowed to the wrecker's bar the first week in May.

"Sure I remember when they were built," answered peppery Inco pensioner Bert Flynn. "It was in 1916. We thought we were really in the big time when we got them."

"We had a four-team league going that year," Bert went on, reaching into his card-index memory. "Copper Cliff, Creighton, Coniston and Sudbury. We had some pretty hot players."

Not mentioning himself, one of the greatest little shortstops ever to play in the North, Bert named George Ferguson, Charlie Cummings, Dennis and Charlie O'Reilly and Bill Waterbury among the Copper Cliff stars. Creighton had such men as the mighty McLaughlins, Leo and Red, Doodle McDonald and Jerry Avar. Coniston boasted Johnny Jacobs, who later went up to Baltimore, Chuck Drake, Frank Parker, and young Charlie McTague, who was to become a justice of the Ontario Appeal Court. The Green brothers, Red and Shorty, Murray Mulligan, who also became a judge, and Charlie Langlois were among the Sudbury lineup.

"Hey, that's almost 50 years ago!" yipped Bert. "I must be getting old!"



Mr. and Mrs. Visentin

blacksmiths before moving over to the smelter. He held many jobs there and the last few years worked as a dryman.

With plenty of time now Leone is able to give full rein to his love of gardening. This year he fully expects to provide most of the vegetables his family will need from his large garden lot next to his home on old Fifth Street.

Daily walks, visits with old cronies, and trips to the Club Allegri, plus a lively interest in his home and family, make a fine retirement program for this happy and very likeable pensioner. Another trip back to Italy is in the planning stage.



Tankhouse Jets Led Revived Refinery Bowling

Tankhouse Jets led the parade in the Copper Refinery men's bowling league. After winning the league title they beat out Millwrights in a close playoff series. The Jets are shown above: Metro Szeryk, Leo Fay, Ed Cavanaugh, Jim Tosto, Tony Massotti, and Brooks Mathews. Individual honors went to Dave Scott, for high average, 216, Tony Massotti, high single, 357, and Paul Dore, high triple, 863. Presentations were made at a banquet held in the Kingsway Hotel. This league, dormant for several years, was revived last season with Dave Scott as president and Paul Dore as secretary. In addition to the winners five other teams were entered. Millwrights, Transportation, Casting, Shops and Iron Ore Plant.



A tensely dramatic scene as the Copper Cliff team races against time to treat the injuries of two of the plane crash victims. Tommy Bubba signals for more bandages. Behind him to the left is Roger Martin, and partly visible on the right is Arni Wuorinen. Judges Dr. J. H. Sturt-ridge (left) and Dr. J. H. Stanyon are right on top of the play.



Preparing to move one of the victims to a stretcher, Copper Cliff's Reno Deluca and captain Bill Koivu are assisted by a trapper, Leo Frappier, whom they rescued from drowning.



General manager Gaetz presents the R. D. Parl Jack Corrigan and the other members of the Couture, Jack Abigail, Frank Bohmer, Ivan Lotr Spencer. At the left is safety engineer Tom Crow

Levack Wins The Parker

For the second successive year a Levack team splinted and bandaged its way to victory in the Parker Shield competition for the Inco inter-plant first aid championship.



T. M. Gaetz

Corrigan, Orville Couture, Jack Abigail, Frank Bohmer, and Ivan Lotman.

He also heartily congratulated the runners-up on their outstanding display of first aid technique and hustle. Members of the Copper Cliff mechanical department team, who had won the D. Finlayson trophy in the surface plants semi-final, were coach Lionel Rochon, captain Bill Koivu, Tommy Bubba, Reno Deluca, Roger Martin and Arni Wuorinen.

The Levack mill team's victory came as a surprise to the majority of the crowd, due partly to the different procedures followed by the teams. Two of the patients, injured in a plane crash, were removed from the fuselage by Copper Cliff and treated in full view on the floor where the audience could follow the team's snappy and highly convincing performance. Levack, on the other hand, elected to give full first aid to one of the crash victims before bringing him out of the plane, and the highly professional thoroughness of their work could not be fully appreciated. But they piled

Before a big audience that had closely followed Levack's exciting duel of wits and skill with Copper Cliff, general manager T. M. Gaetz presented the trophy, medals and \$50 cash awards to the proud winners, coach Fred Spencer, captain Jack

up the point nevertheless and came off winners by a substantial margin.

A bush scene in northern Ontario, made more realistic by sound effects of bird and wild animals, set the stage for the contest. The first aiders, who were employed at a winter resort five miles distant, had been clearing ski trails when they heard the cries of a trapper who had fallen into a lake in the weather. They per from the



Shield to captain
back team, Orville
and coach Fred
y, master of cere-

monies. The victorious team came from Henry Bertram's 13-man shift in the Levack mill. They held a victory celebration with their wives and friends at Jack Corrigan's home in New Sudbury.



Dr. Hazelwood

through the ice
degree December
issued the trap-
stic lake, where-

With infinite care three members of the Levack team remove a patient from the wrecked aircraft. Despite the cramped quarters they did a beautiful job of treating this man's fractures and wounds before removing him from the cargo compartment. The plane's radio was undamaged, so they were able to summon help which eventually arrived by helicopter (you could hear it) to the remote accident scene in the northern Ontario woods.

upon he told them of hearing a plane crash nearby. In the wrecked fuselage they found: the pilot still strapped in his seat, unconscious and suffering three fractures; a passenger prone in the cargo compartment under a heap of boxes with two fractures and a metal fragment embedded in a wound in his arm; the co-pilot, thrown out of the plane, with two fractures and his right eye enucleated. It was a full 50 minutes of hectic work for both teams.

The dramatic problem, loaded with pitfalls for an unwary first aider, was cleverly engineered by Tom Crowther, Bert Debney, and Mike Mulloy. Ray Bouchard conducted the oral tests of the teams.

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A jubilant George Morrison, Levack mill superintendent, is congratulated by Tom Crowther on the success of his plant's team.



Levack's Frank Bohmer fires questions at the doctor to determine this victim's condition while captain Jack Corrigan is busy with the bandaging.



Pleased and proud, Kathleen Bohmer admires her husband's medal and at the same time reaches for that \$50 cheque. BELOW: Jack Abigail's sister, Mrs. Betty Wright, happily congratulates her brother and Ivan Lotman.





The season's loot was duly divided among the victors. 1. Copper Cliff branch manager Harold Willis presented the Toronto-Dominion Bank trophy to Don Harry (skip), Morley Harry, Jim Blackport, and (absent) Cecil Dennis. 2. Copper Cliff mayor Richard Dow presented the Colts

event trophy to Jim Blackport (skip), George Inkster, Don Harry and (absent) Jack Colquhoun. 3. J. N. Lilley presented the Waterbury trophy to the shift curling champs, Ed Pandke (skip), Allen Earl, John Dixon and (absent) Moe Palmaro.

Victors Rewarded, Copper Cliff Curling Club Gets Set for Next Season

A strong executive will again be at the helm when Copper Cliff Curling Club squares away for action next fall. At the annual banquet and trophy presentations, held in the Legion Hall, Dan Kelly was

re-elected president with John McCreedy as vice-president, Ron Heale as secretary, and Syd Manley assistant secretary. Committee chairmen elected were Don Fraser, house; Vince Lalonde, competition

and prizes; Norm Ripley, ice.

Named as plant representatives were: Frood, Ted Goddard; Creighton, Harvey Bangle; mines, Jim Rutherford, mechanical, Fred Burchell; electrical, Ed Mitchell;

smelter, Pete Duffy; mill, Dick Sheridan; refinery, B. Brown; general, H. Borland; general office, D. Duncan, Copper Cliff town, Mac Canapini; Lively, Wes McNiece; shift, H. Allan, J. O'Riordan.



1. Six wins against four losses was the excellent record of the Northern Ontario representatives in the Canadian curling championships at Brandon, Doug Gathercole's Copper Cliff foursome. Here they are with president Dan Kelly, who presented them with Copper Cliff



Curling Club championship crests: Doug Gathercole (skip), Joe Sauve, Teedy Leclair and Rusty Duherry. 2. Don Fraser presented the Inter-Rink trophy to Joe Sauve (skip), Teedy Leclair, Linky Canapini, and Billy MacDonald.

Levack Wins

(Continued from Page 11)

Tony Basso was timekeeper, and Frank Young handled the boom mike. Leo Prappier was the trapper who injected some amusing pantomime into his act. The accident victims were Charles Phillips, Philip Perras and Terry Villeneuve; John Mulloy was a bear that had to be shooed away.

Three members of the Inco medical staff, chief surgeon Dr. B. F. Hazlewood and Drs. J. H. Stanyon and J. H. Sturtridge, had the difficult task of judging the complicated contest.

In his remarks prior to announcing the winner, general manager Gaetz gave strong emphasis to the value of first aid training, which could mean the difference between life and death in an emergency at work, at home, at play, on the highway. He spoke of the great importance placed by the senior officers of the Company on this phase of Inco's safety program, and expressed their praise and gratitude to all who had given leadership or assistance in conducting the 1963 first aid training and competitions. The 1963 content for the Parker Shield was the best one yet in his opinion.

The 660 new men trained in classes and competitions this year brought to a total of 3,036 the



One good way to get ahead in curling is to play on Joe Sauve's team. Here that highly personable fellow receives from G. S. Jarrett his third presentation of the night, the J. R. Gordon trophy; with him are Jack Galey, George Hazleden and Don Horne.

number of employees at Inco mines and plants in the Sudbury district who had received first aid instruction in the past five years. This represented one man in every 4.4 on the Sudbury district force.

There were 136 teams in the first aid competitions this year, Frood-Stobie heading the list with 40, followed by Creighton and Copper Cliff with 27 each, Levack 15, Garson 9, Copper Refinery 8, Coniston and Iron Ore Plant 3 each, and Murray and Clarabelle 2 each. A total of 816 men took part.

Teams reaching the surface plant semi-finals for the D. Finlayson trophy, won by Copper Cliff, were:

Copper Cliff Plant Mechanical,

W. Koivu (captain), T. Bubba, R. Deluca, R. Martin, A. Worinnen, L. Rochon (coach).

Coniston Plant, L. Boyer (captain), M. Zettler, G. Lapierre, L. Collin, J. Harapiak, E. Albert (coach).

Iron Ore Plant, H. Persoon (captain), G. Pilon, H. Ross, E. Peltier, L. Rivard, L. Shore (coach).

Copper Refinery, A. Martin (captain), T. Banjar, R. Watt, M. Sam-borski, M. Szeryk, E. Holgate (coach).

Teams reaching the mine plant semi-finals for the H. J. Mutz trophy, won by Levack, were:

Creighton, K. Puerniss (captain), W. Laalo, J. Dulinski, T. McQuaid, C. Bell, W. Young (coach).



Club secretary Alvin Nickle presented the Single Rink trophy to John Smith, whose team-mates in this event were Paul Terrill (skip), Andy Johncox, and George Fisher.

Frood-Stobie, V. Laporte (captain), J. Savard, H. Vendette, E. Thibault, W. Morton, G. Andrews (coach).

Garson, G. Peikola (captain), S. Maki, E. Corporan, J. Harasymchuk, R. Ylmen, O. Matson (coach).

Levack, J. Corrigan (captain), O. Couture, J. Abigail, P. Bohmer, I. Lotman, H. Bertrand (coach).

GIANT BEER VESSEL

The world's largest beer fermenting vessel, in Dublin, Ireland, has a capacity of 8,016 barrels (4,600,000 bottles) of beer and is constructed entirely of nickel stainless steel.



Frood-Stobie's Champs

Still one of the best in the Nickel Belt for fun and friendly competition, the Frood - Stobie bowling league wound up another big season with a banquet and presentation of prizes at Legion Memorial Hall, Sudbury. The ladies graced the occasion, and the evening concluded with dancing. Above are two of

the winning teams: 1. J. A. Pigott (left) presented the S. J. Sheehan trophy to the "A" section winners, Gordie Quinn (captain), Johnny Kruk, Sandy McIntyre, Jimmy Kilby, (absent, Lou Midgley, Bobbie Elliott). 2. John McCreedy (left) presented the C. H. Stewart trophy to the "A" section playoff winners, Bill Akroyd, Stan Forman, Pat Scanlon, Al Kyllonen, Perch Grassam, (absent, Tony Hebert, captain).



1. Eldred Dickie (left) presents his trophy to the "B" section winners, Ted Boyd (captain), Pete Smith, Henry Boyd, Alf Boyd, Steve Horeck, (absent, Johnny Killah). 2. Gar Green (left) presents his trophy to

the "B" section playoff winners, Johnnie Armstrong (captain), Bruno Malvaso, Mervin Kittlar, Vic Whittall, (absent, Vac Coufal, Ernie Obrax).



1. Gordon Strasser (left) presented individual trophies to Sven Rautio, high average, 235, and high triple, 365, no. 1 group; Sandy McIntyre, high single, 373, no. 1 group; Perch Grassam and Tony Mazza, high average, no. 2 group. (Absent, Danny Konjevic, high single and high

triple, no. 2 group). 2. M. E. Young (left) presents the Inco Club inter-league trophy to the Frood team, Sven Rautio (captain), Erle Dunn, Tommy Kane, Alf Chartier, Gordie Quinn. They won with 5649 in a five-team match.



In a huddle here are the Frood-Stobie bowling league committee responsible for a smooth season, Johnny Wiltshire, Johnny Armstrong, Erle Dunn, chairman Eldred Dickie, secretary Ab Stone.





Eye-Stopping Inco Display Says "Nickel's Contribution Is Quality"

"Nickel — its contribution is quality" is the theme of International Nickel's exhibit at the 1963 National Home Show at Toronto. On display were beautiful, durable nickel stainless steel and nickel-chrome-plated products for the home. So much a part of modern living, easy to clean and keep clean, they won't

stain or tarnish.

In plated appliances, such as toasters, the attractive, long-lasting finish is largely due to a tough layer of nickel under the chromium. Heating elements and thermostats also contain nickel. Modern electric ranges may also have a nickel plated oven, a brushed chromium-over-nickel exterior

surface, and heating elements not only containing nickel but also sheathed in a nickel alloy.

In modern stainless steel products for the home, too, nickel plays an important role, for the highest quality nickel stainless steel contains at least 8% nickel.

At the opening of the exhibit, K. H. J. Clarke, Inco's manager of Canadian sales and market development said, "Since nickel and nickel alloys traditionally endow products with strength, durability, corrosion-resistance and aesthetic appeal, the theme 'Nickel — its

contribution is quality" is essentially an identification and intensification of the Company's marketing approach over the years. The contribution which nickel makes toward quality, and the heightened interest of consumers in all markets for reliable, long-term performance and enhanced appearance of manufactured products, reflects the belief that the accelerated demand for quality goods will significantly effect an increase in the application of nickel."



Bert Behenna

A timekeeper at Creighton from away back, and chief timekeeper since Tom Mulligan's retirement early last year, Bert Behenna has now been sidelined with a heart complaint. The time office boys gave him a bang-up party recently and presented him with a rotor tiller which should be a big help in cultivating the acre of ground around his new home near Whitefish.

Bert was raised at Creighton from the age of 10. "I was born at Cornwall, England," he said, "but we came over here in 1910. My father James worked at Creighton." Bert started his timekeeping career

to come up against," he smiled.

A man who gave freely of his time to the community, Bert was for 27 years secretary-treasurer of the Creighton Mine school board and also audited his church's books. He was the Creighton Mine Athletic Association secretary-treasurer for eight years and served in a similar capacity for the first conservation club that was formed in Creighton over 20 years ago.

The Behennas lived in Creighton until 1950, moved to Lively for a

dozen years, and now have a very comfortable home located near Whitefish, between the old and new highways.

They were married at Larder Lake in 1927. Mrs. Behenna was formerly Anna Gannon. One son Bert is a hoistman at Creighton no. 5 shaft, the other two Lorne and Stanley, work in Sudbury. The seven grandchildren are a real blessing to this fine couple who love to babysit them over weekends and on week days too.

Golden Wedding

Residents of Coniston all their married life, Mr. and Mrs. Joseph Pantin were feted on their 50th wedding anniversary by their eight children, 25 grandchildren and two great-grandchildren at a dinner party in the Club Allegri at Coniston. Mr. and Mrs. Pantin were married in Castel Franco, Veneto province of northern Italy. The bride was formerly Matilda Ferro. The couple sailed for Canada soon after the wedding, and settled in Coniston. Mr. Pantin worked at the Coniston smelter for more than 40 years, retiring in 1954. Although their three sons and five daughters are all married now, they frequently visit back and forth with their parents. The boys, Ontario, Armand and John, all live in Coniston. The daughters, Mrs. Emilio Valentini, Mrs. Andrew Simeoni, Mrs. Wilfred Orser, Mrs. Fred Cecutti and Mrs. Michael Wandziak, live in Sudbury.

It takes nearly 10,000 tubes of nickel stainless steel to package the uranium oxide fuel of the first nuclear powered merchant ship, the N. S. Savannah.



Mr. and Mrs. Behenna

as an office boy for Jim Regan in 1915 but that career was to have many interruptions before settling down to a regular tempo in 1928.

When he was laid off in 1923 young Bert went clerking for Fraser-Brace. "We were clearing the bush, getting ready to build 'the Big Eddy dam,'" he said. Later he worked in Jaworski's store in Creighton, then spent two years in the time office at the old British American mine, now Murray.

A jaunt to Larder Lake to relieve a timekeeper for one month developed into a four-year stay and it was not until 1928 that Bert returned to Creighton. He started again in the time office and stayed. "I guess I've seen and done most everything a timekeeper is liable

A Man Builds His Dream Castle



The old saying that a man's home is his castle goes double for Palmio Santoro, who has a castle in his home. Back in 1938 Palmio saw a castle in a movie in Italy, and the picture of it stayed in his mind all these years. A woodworking fan, he finally resolved to build a model of it, and here's how it looks a quarter of a century later. The building blocks are walnut, the mortar is strips of white pine, and the bigger blocks in the steps are mahogany, as are the doors and windows. There are 4691 pieces and Palmio cut and polished every one of them by hand. It took him 376 hours. When he comes home from his shift at the Copper Refinery, where he has been employed since 1949, Palmio sits for awhile in his armchair and admires his dream castle while his thoughts drift back to the carefree days of his youth in sunny Italy.

Mike Wawryszyn

Mike Wawryszyn has retired on disability pension with almost 30 years' service. He had worked at Levack since 1937 and previously at other Inco locations.

Mike came from the Ukraine in 1923 and headed straight for Sudbury where he had friends. In short order he was working at the old British American smelter at Murray and when that operation closed down worked a short time at the smelter in Copper Cliff. Laid off, he later worked at Creighton and helped drive drifts at that mine until 1929.

"I quit and tried the Errington," he grinned, "but I didn't like it." He worked at Falconbridge for a time, helped with the construction



Mr. and Mrs. Wawryszyn

of the Copper Refinery, then started at Frood in 1931. He worked on development until moving to Levack in 1937. The last 15 years Mike worked with the mechanics and misses that gang very much. "I got along well with everybody," he said.

In 1926 Mike married Barbara Sas. Their daughter Olga is married to Mike Yallowaga, and Sophie to Orest Mustaler, both of Levack; their son Walter also worked there until the layoff. They have four grandchildren on whom they dote.

Mike and his wife are moving soon to the Rheume Flats area of Larchwood where they have a comfortable home. "I'll miss Levack though," said Mike, "that's sure a good place to live."

Joe Lukezych

Big Joe Lukezych has retired from Stobie on an early service pension. His service dates from 1936 but he had worked at Frood some six years earlier.

Born in Yugoslavia at the beginning of the century Joe had worked eight years on the railroad before heading for Canada in 1928.

When he found no work at Sudbury he moved on to Montreal, Welland and other spots but with



Mr. and Mrs. Lukezych

no better luck, and finally ended up at a lumber camp north of Naim. "We got \$1 a day," Joe

Among Those Enjoying Anniversary Ball at Copper Cliff Club



Corsages for the beautifully gowned ladies, a buffet dinner that was a gourmet's delight, and a full repertoire of dance music, from bossa nova to Paul Jones, by Wally Johnston's popular quintet, made the Copper Cliff Club's 47th anniversary ball an event to remember. Shown above at one of the tables, from the left, Bill and Ina Armstrong, Norman Pearce, Betty Sheehan, and Norman Creet; back to camera is Betty Creet.

recalled, "and worked from dawn to dark."

In 1930 he came to Sudbury again and Martin Horne hired him at Frood no. 4 shaft where he worked until 1934. "I quit and went back to the old country," Joe recounted, "but after a couple of years I knew I was better off here." He returned in 1936, was employed at Frood with the motor crews, and worked with them until six years ago when he went to Stobie as powderman.

It was while back home in 1934 that Joe married Angelo Ogulin and their family consists of Edward, who worked at Thompson last year, Emilia, whose husband Oscar Raulf is a former Copper Refinery man, Ivan, in third year engineering at Queen's University, and Joe, at St. Michael's College in Toronto.

A happy man and mighty proud of his family Joe is enjoying retirement but does miss the joking and kidding from the gang at work.

George Wills

George Wills, born in Wainfleet village in 1898, was a General Motors employee in Buffalo for seven years.

He returned to Hummerstone Township to "plow the land and scatter the good seed" for three years. The Inco stacks at Port Colborne could be seen from George's farm in Sheraton and in 1935 he left his plow to work behind the shears in no. 5 building. From the cutting floor he moved to the units, then on to liquor chaser, an important job in the distribution of electrolyte, before becoming an operator on the cementation floor.

George Wills was regarded as one of the most dependable operators throughout his 22 years on the pachuca floor. He transferred to the security department four years ago and Bert Crawford, his

supervisor, said, "I know he was a well respected employee in the electrolytic building and he has continued to be a loyal, dependable and trustworthy officer, doing his duties with the same conscientiousness."



Another group: Holly and Dorothy Hyland, Herb and Jean Stewart, Gar and Bernice Green.



Kay and Gordon McLean, Dorothy Young, Rose and Jack MacKinnon.



Mary and Jim O'Neill, Marion and Gordon Machum, Joan and Bob Ludgate. The annual ball drew a capacity crowd, and club steward Cecil Bissonnette regretfully refused some 40 requests for reservations.

supervisor, said, "I know he was a well respected employee in the electrolytic building and he has continued to be a loyal, dependable and trustworthy officer, doing his duties with the same conscientiousness."

In 1917 George married Alberta May Michener. Their two sons, Kenneth and Roy, both live in Port Colborne and are employed by the John Deere Co. Four

grandchildren and two great grandchildren complete the Wills family.

At a gathering in the security office George received a well-filled wallet from J. H. Walter on behalf of the men who had known and worked with him through the years. Mr. Walter thanked him for his 28 years of faithful service to International Nickel. Mrs. Wills received a bouquet of roses.

Electrical Department Was Right Place to Go for Safety Research



There could hardly be a better climate for safety research than the electrical department at Copper Cliff. Safety is stock-in-trade with that careful group, who have worked since November 12, 1960, without a lost-time accident, a total of over 360,000 safe shifts.

So when the mines department were developing An/Po as a mine explosive, and wanted a thorough investigation of the safety factor in handling the new material, they couldn't have gone to a better place than the electrical department's instrument section. A laboratory was immediately set up, and instrument foreman Leo Kilpinen took charge of the investigation.

An exhaustive study produced two additional safeguards that did away with the remote possibility of a static electricity buildup when loading An/Po in primary blasting, and the mines people came away highly pleased with the results.

Photograph shows the lab setup with which the important investigation was conducted. In the centre are the high voltage transformers, rectifiers and switching gear devised to simulate the static problem in loading drill holes, and to the right is the steel cylinder in which hundreds of blasting caps were detonated during the tests. To the right is the oscilloscope for measuring static discharge pulses. Mine research engineer Bob Close is discussing the investigation with instrument foreman Leo Kilpinen.

Alf Habel

Alf Habel is retiring on pension from his job with Inco at Port Colborne, presumably to devote his full time and talents to the glory and perpetuation of his political party.

Alf was born in Goderich in 1898 and leaves Inco on full service pension at 65 years of age. He came to Port Colborne in 1918 and worked for the Foundation Co. on the building of the Nickel Plant before joining the staff of Ed Mosher, grocer, where he worked for 13 years.

In 1933 he joined Inco and for the past 29 years has been a loyal and dependable employee. He started in no. 5 building box floor and has been associated with that department throughout his career.

Alf has been active in municipal affairs. He was five years on the Board of Education, and spent three years on the Athletic Com-



Mr. and Mrs. Habel

mission. He has been prominent in lodge work and in politics. Mrs. Habel is also an active worker in the Children's Aid.

In 1923 Alf married Hazel Finnegan. Their son Jim is assistant manager of the Woolworth Company in Hamilton.

At a gathering on the box floor, Alf was presented with a loaded wallet from his workmates and friends. Bert Lindenas acted as master of ceremonies and spoke of Alf's work and dependability. James H. Walter, assistant manager, thanked Alf for his faithful service to the Company and wished a long, happy retirement to him and his wife.

Alex Shields

Alex Shields has a simple philosophy. "Do right by your men and they'll do right by you." He proved it over the many years he was yardmaster in the transportation department at Copper Cliff. There he was held in warm esteem by all associated with him.

An indication of this high regard was the fact that three separate groups at work feted him upon his retirement. Said transportation superintendent J. C. MacKinnon, "He was one of the best, firm but always fair." Alex has retired on early service pension with 35 years' service.

He was born in the Ottawa Valley region 60 years ago and had made a couple of trips out west before coming to Sudbury in 1928. "My brother-in-law Bill O'Brien

was here and told me this was the place to work. He sure was right," grinned Alex.

Yardmaster for over 30 years, Alex worked his entire Inco service in the transportation department. His service and his life were almost ended abruptly many years ago when he was a conductor. "It was at the Levack road crossing on the Frood run," he reminisced. "It was about 10 o'clock at night and I was

waving the lantern at the crossing — we didn't have lights then. All of a sudden this guy in a car ploughed into me and the train, and I woke up in the hospital."

The Shields have lived in the same house in Copper Cliff for 31 years but are planning on moving back to "The Valley" now. Mrs. Shields was Eva Collins before her marriage in 1929. Their son Darrel works in the transportation department, and their daughter Betty's husband Jack Blackman is at the Iron Ore Plant. Young David is still in high school. They have four grandchildren.

A cottage on the Ottawa river and extensive grounds around his new home are going to make a pretty full summer's work for this energetic pensioner. In the winter he enjoys skating. "I've skated every winter except last year," he said, "and I really like it."

Alex is a student of the Bible and completed his third complete reading of it at the time of his retirement.



Mr. and Mrs. Shields



Thompson Art Club's president and instructress, Madeleine Fregren, studies a painting with secretary Doug Taylor. Treasurer of the club is Essie Lyons.

Art Group's Showing Enjoyed at Thompson

A bright, refreshing exhibition of amateur art, some 50 paintings in all, drew a steady stream of visitors while it was on display at the Hudson's Bay Company store.

It was the first annual showing of the Thompson Art Club, which boasts 35 enthusiastic members.

Although many of the paintings were maiden efforts of first-year members, the exhibition was of uniformly high calibre. Some unusually fine talent was in evidence, but the outstanding feature of the pictures was their freshness and originality. These were people who were painting for recreation without worrying too much about the rules.

There was a very good scene of a city at night, by Merle Cameron, and some excellent pastorals by Marlon Rudolph, a lady with a graphic touch. Doug Taylor had done a fine seascape, and Molly Kutcher a forest scene rich with autumn coloring. A strong, bold painting was an aerial impression of the barren lands by Grace Thrall.

Madeleine Fregren, the club's instructress, was justifiably proud of her group's showing. A gifted artist herself, she first became interested in teaching art while teaching school at Yellowknife. A graduate of the University of Alberta, she studied at the Banff School of Fine Arts.



Day Off

What does a man do on his day off? Well, it depends. If he's left to his own free will, usually not very much, but if the Little Woman just happens to have a chore or two that need doing around the house — that's what he does. The Triangle camera took a swing around Port Colborne one bright morning in May, and found these Nickel Refinery men doing these things on their day off: Ross Gravelle, electric furnace operator, was chasing his lawn mower over the greensward. Alderic Lacroix was washing the windows, which was a good deal cooler than tending his sulphide furnace.



Stafford Lessard, head precipitation man in the cobalt section at the plant, was soaking up the sunshine while putting a roof on his new garage. Floorman Alf Martonelli, a conservation booster, was helping raise funds for the Port Colborne and District Conservation Club by selling tickets on a boat, motor and trailer. His customer here is Lloyd Pukle.



And bridgeman Laurent Nolet was doing what all the others probably wished they were doing. He was standing on Schofield's dock contentedly casting for whatever might take a fancy to his bait. But those who sacrifice their day off to toil can take comfort from the theory that a man should be useful as well as ornamental.

Award Honors Highest Service

The significance of the new Company award, The Chairman's Citation, which has been presented for the first time to Ralph D. Parker by Inco's chairman Henry S. Wingate, is described as follows:

"Established in 1963, The Chairman's Citation honors an individual whose achievements or distinguished service have made exceptional contributions to International Nickel and the nickel industry. It is, above all, a recognition that great achievement and service are the reflections of personal character.

"The citation is presented upon those occasions when there is one individual who is most seriously deserving of this tribute. In this way the award honors the man and the man honors the award. The reverse of the medallion bears the portrait of the individual recipient.

"The theme and significance of The Chairman's Citation are interpreted on the reverse side of the Citation medallion, which is struck in pitting, a nickel-bearing metal used through the centuries for this purpose. It represents Prometheus, who in classic mythology was revered for his selflessness and courage in the extraordinary feat of wresting fire — symbol of progress and civilization — from Mount Olympus for the use of mankind.

"The quotation 'Experto credite' ... look to him, he has proved himself' from Vergil's Aeneid, is appropriately applicable to Prometheus and the recipient of the citation."

Olimpio Salvatori

Another happy Inco pensioner is Olimpio Salvatori, who worked the past 20 years at the Copper Refinery. "The very best place to work," was his testimony. He was in the sample room for 15 years and previously in the wire bar storage department.



Olimpio is still a bachelor and claims he has been too busy enjoying life to get married. He freely admits too, that he's had the finest of comfortable living for many years in the home of another Inco family, that of Guino Furlani of the Copper Cliff hospital staff.

Olimpio came from Italy in 1914, worked several years with an extra gang in New Brunswick, helped build a shipyard at Halifax just after the big waterfront explosion there, then came to Sudbury in the early 20's and worked a dozen years on construction with Fraser-Brace. He started at the Copper Refinery in 1942.

He is planning a trip back to Italy for later this year.

WHO'S BLIND

"What's the matter," yelled the pedestrian at the driver, "are you blind?"

"Blind? I hit you, didn't I?"

Front Cover

Take a brilliant day in May, a cherry tree in blossom, and a pretty girl in love, and you've got yourself a picture that says Spring in any old language.

Eleanor Maier, whose marriage to George Frey is set for next September (the lucky guy!), is the young lady who is making the beautiful cherry blossoms jealous on the Triangle's cover this month.

Research department stenographer at the Nickel Refinery in Port Colborne, Eleanor is the daughter of Steve Maier, charge mixer in the anode department. She has worked for Inco four years, her father 20.

SATELLITE CONTROLS

Satellites are controlled by computers and guidance devices which often have electrical printed circuits plated with rhodium — one of the platinum metals — which provides a hard, tarnish-free surface.

Port Colborne Incos Win Ontario Title



Port Colborne News
An Inco Recreation Club basketball team playing under the colors of St. Brendan Church at Port Colborne swept to the championship of the Intermediate "C" Ontario church league. After winning the Niagara District title they went on to defeat Hamilton, Toronto and St. Catharines for the provincial crown. Front row, Louis Dimick, Doug Caldwell, Larry Roach, Don Ford, Jack Karpinchuck (coach); back row, Nick Ballin, Garry White, Alan Thompson, Brian Ewing, Jerry Banner.

John Williams

John Williams, one of the real oldtimers at Copper Cliff, has retired on service pension with almost 39 years' service. He first worked for the company back in 1915 when he put in two years at the old Copper Cliff no. 2 mine. "Cap Hambley was in charge," John recalled. "The mine closed down in 1917 and that ended my mining career."

He first tried mining some two years earlier when he started work as a drill boy in the copper mines of Calumet. He was born in that town in 1898.

After the Copper Cliff mine shut down John went to work on the blast furnaces in the old smelter and later punched on the con-

muddy roads. "I remember seeing old Alex McLeod drive the first car in Sudbury," she stated. "He drove up what is now Elgin street but then it was only a couple of wheel ruts in a gully."

The Williams have one daughter, Rae (Mrs. J. McKenzie) of the Soo, and three sons: John is an engineer with Quinn Construction at Thompson, Manitoba, where he has worked since 1957, Earl is purchasing agent for Denison Mines, and Barry is a first year student at McMaster University. They have six grandchildren.

The family summer camp at Long Lake is where this fine couple spend most of their time during the season and at other times their favourite pastime is bridge.

Joseph Blais

A mechanic all his working years, Joe Blais has retired from the mechanical department at Copper Cliff on service pension. He first worked at Inco in 1927 but quit and did not return until 1972.

Born and raised in the Gatineau district, Joe apprenticed as a mechanic at the paper mill in Espanola in 1915. He left there in 1924 and went to Blind River where he helped install the turbines and boilers in a new sawmill.

Coming to Copper Cliff in 1927 he was employed as a mechanic, and one of his first jobs was helping install a new boiler at the hospital, he recalled.

Joe went to Timmins with a plumbing and heating contractor in 1938, but gradually realized that

a job with Inco was something to be prized. The year 1942 saw him back with the mechanics at Copper Cliff and in the ensuing years he became custodian of the boilers at the smelter. "Each summer I look after all the boiler repairs," he said.

In 1928 he married Germaine Bourgeois and they have 11 sons and daughters plus 17 grandchildren who help keep this couple active and interested. Their three daughters are Bernadette, who married Romeo Cote of Levack, Marie (Mrs. G. Scotte) and Diane at home. Their sons are Andy at St. Catharines, Norman who works at the smelter, Raymond at Stobie

and Oscar, Donald, Victor, Henry and Maurice, all of Sudbury.

Joe has a comfortable home in New Sudbury where a good sized lawn and garden and an interesting basement workbench, keep him occupied and happy. Come summer he hopes to spend much of his time at his daughter's Whitewater Lake camp.

STAINLESS CROSSWALKS

In an effort to reduce the cost of maintaining the markings on street corners and to improve their visibility, a number of German cities are using nickel stainless steel marker plates instead of the usual plastic paint or white asphalt.

Banquet Rings Down Levack Hockey Curtain



More than 200 eager young customers, each armed with a giant's appetite, were Johnny-on-the-spot for the annual banquet and trophy presentations of the Levack minor hockey league, held in the St. Bartholomew church hall. Among them were the members of the all-star bantam team, pictured in last month's Triangle, who won the Northern Ontario championship. Coaches of the 20 teams in last season's league all sat with their boys.



Shining trophies were presented to the winning team, high scorer, and most valuable player in each of the league's four divisions. Secretary Henry Bertrand, in charge of the evening's arrangements, said the league had an excellent season, and praised the fine work of the coaches and officials. Referee-in-chief was Ron Matte.

Among the head-table guests were Levack mine superintendent Vern Ritzel, popular NHL great Jerry Toppazzini, who was guest speaker, Father Sharpe, and Frank Doyle, minor hockey league president and irrepressible champion of boy's activities in Levack.



Mr. and Mrs. Williams

verters. He quit in 1919, went to Cleveland for a few years and came back to Copper Cliff in 1923. "I got my old job back and started working for Frank Taylor."

John has been a skimmer on the converters since 1935 and says that making metal now is a much simpler and surer task than when he started. He liked his work and was known as a capable and reliable skimmer.

It was at Cleveland in 1922 that John married Ethel Newman and they are a very happy couple. Mrs. Williams was raised in Sudbury and recalls when most of the town was bush, footpaths, and a few

Phil Decided He'd Like To Own an Organ

Phil Gross of the Levack mine engineering staff has set a mark in do-it-yourself projects that's going to be hard to beat.

He built a full-scale concert model electronic organ, and with the exception of a power drill he did it all with hand tools.

For many years Phil had a recurring desire to own an organ. A couple of years back, while teaching himself to play the small church Wurlitzer organ for the benefit of his Sunday School class, this desire crystallized into action. In spare hours during the next two years this man of determined action and incredible patience fashioned a fine musical instrument, beautiful to both eye and ear.

Phil said his previous experience in making things amounted to a few rough cupboards and the like, so the first question was how he knew even where to start to build an organ. Phil explained it simply. "If you really want something badly enough, you can do or make almost anything," he stated. "The human mind is a marvellous machine but I am afraid we don't use it, nor our natural skills, nearly enough." Well he certainly has!

His first move, back in October, 1960, was to buy four old pump organs of the type common a half century or more ago. "I picked up two in Larchwood, one at Chelmsford and the other at Levack," he said.

After washing and disinfecting, they were dismantled carefully to preserve the fine mahogany wood. Phil sanded them down to the original grain and color, then assembled sections together to form the cabinet of his new organ. "I had no formal plan," he grinned, "so I had to remodel and extend the cabinet three times to get what I finally wanted."

Starting originally to build a modern pump organ, he had it nearly completed when he learned



A PRODIGIOUS DO-IT-YOURSELF FEAT

Levack's Phil Gross at the console of his home-built organ. His son Mark, who is learning to play, watches his dad admiringly.

it was possible to buy an electronic kit for an organ. This presented a challenge he couldn't resist. He bought one of the kits and undertook to install it.

"The kit contained hundreds of small parts that had to be assembled," Phil pointed out, "but it wasn't too difficult when you followed the instructions." This is a modest view of a task that obviously required great skill and patience. Hundreds of small circuits had to be wired and soldered while tubes, condensers and capacitors by the score were involved. "My boys helped with the soldering," Phil said.

He is particularly pleased with the sounds this organ is able to produce. "I have a choice of 27 voices," he explained. "Trumpet, clarinet, guitar, piano and harpsichord are but a few of them and in addition I also have the chimes."

Phil used two of the old key-boards in his new model but looking at them now it would be difficult to recognize them. The keys are all beautifully tapered and molded, and are painted with a rich gradation of black and red in a unique color scheme. In reshaping the keys, which are of hardwood, not ivory, he used only a



TOOLS

Phil holds up a few of the cutting tools he filed from nails and scrap metal to cut indentifications into the mahogany stops, which he also made. Some of the stops and lettering are shown below.

saw, knife and sandpaper. "Sometimes he would spend two or three nights on one key," said Mrs. Gross.

Since the stops from the old organs did not suit his new organ design, and a new set cost over \$150, he decided to make his own. "Funny thing about that," he explained laughingly. "I got the design from the wooden top of the stopper in a bottle of after-shave lotion." Cutting the indentification into each hardwood stop presented a delicate task that Phil handled neatly by making a set of fine cutting tools from pieces of scrap metal and spikes. "It took 16 coats of paint to fill the letters back up to the level of the stop face," he said.

His organ boasts a full 32-note foot manual, the same as on a pipe organ. He designed and made the long wooden foot keys and installed them in a gentle arc so the outside keys are easier to reach. Adjusting and balancing these keys, no job for a novice, Phil took in stride. "I learned a lot by trial and error," he said with a smile.

Buried deep in the heart of this electronic maze are three speakers, a 15-inch woofer, a 10-inch chatterer and a horn-type tweeter. This is about the ultimate, Phil said proudly; with all three operating correctly, true tone sound is assured.

With no strings or reeds to vibrate, what makes the sound? "It's a tone generator," Phil explained, "a little package of coil, tube and capacitor that responds when the note is struck." Before it is heard the sound produced by the tone generator is fed to other electronic devices which filter out the harmonics to produce the various voices and effects according to the stops engaged. Next it goes to a pre-amplifier, thence to the volume control and from there through an amplifier and finally to the speakers.

The finished organ is an outstanding example of fine workmanship and some people have judged its tone as superior to some church organs.

"I don't know when I have enjoyed anything so much as building that organ," said this king of the do-it-yourself cult. "It probably cost me close to \$2000 to build but would cost three times that to buy. And believe me, I had thousands of dollars worth of pleasure out of making it."

Phil enjoys playing the organ and his youngest son Mark is also beginning to play a little. At the moment Mark seems to favour the chimes.

And what is next for this Levack genius? "I don't know for sure," he admitted. "I find this electronic business fascinating and I may have a go at building one of those electronic brains. That should be fun and it would be good training for the boys."

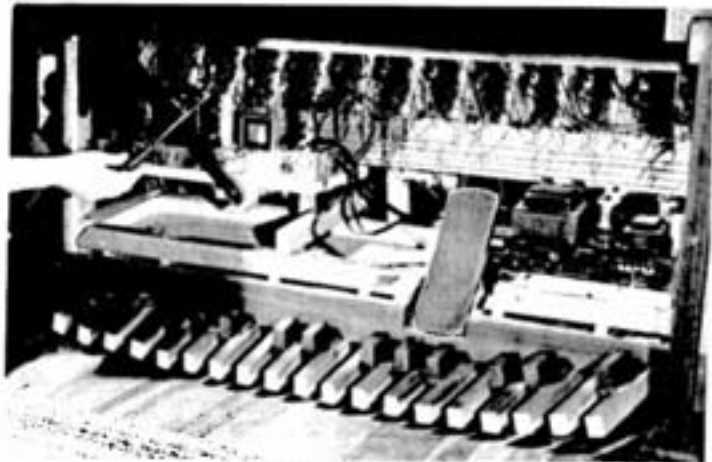
Phil has three sons, Rudy who is 17, John, 13, and Mark, 8.

TAKEN TOO LITERALLY

"Patrick," said the priest, "whisky is your worst enemy."

"But father," Pat protested, "wasn't it only last Sunday you were telling us to love our enemies?"

"It was," said the priest. "But I didn't say anything about swallowing them."



ELECTRONIC HEART

With the lower front panel removed a portion of the electronic heart of the organ may be seen. The many hundreds of tiny wires visible all had to be carefully attached and soldered. In the foreground is the foot keyboard; the large single pedal is for volume control.

INCO FAMILY ALBUM



PORT COLBORNE: Mr. and Mrs. Charles Campbell represent the Nickel Refinery this month, with their children Charles, 12, and Patricia, 4. A crane man with 16 years' Inco service, Charlie performs a valuable community service as a member of the St. John Ambulance group which stands by at all municipal functions, ready to give first aid.



COPPER CLIFF: Our Copper Cliff family this month are the Aldege Leclairs who have a very pleasant home on old Highway 17 near Whitefish. Their daughter Dianne is 17 and young Dennis is 7. Aldege is a member of the Copper Cliff field engineers' staff.



CREIGHTON: Here are Mr. and Mrs. Tom Shannon of Creighton with their four youngsters. Kathleen is 7, Tommy was 6 on May 3, Maureen is 3, and baby Mary, 9 months. Tom is with the mechanical department at Creighton and one of that town's active bowlers.



FROOD-STOBIE: Gerald McGraw is a slusherman at Stobie. He came from New Brunswick 11 years ago and now calls Sudbury home. Here he is with his wife Agnes, the 12-year-old twins Donald and Ronald, 11-year-old Geraldine, Eddie, 9, Mary-Ann, 7, and Nicole, 6.



GARSON: Doug and Jackie Mathison and their children Heather, 1, Michael, 2, and Vickie, 3, make a charming family group. Doug is a member of the mine engineering department. Hailing from Woodstock, he met Jackie while attending the School of Mines at Halleybury, her home town.



THOMPSON: Mr. and Mrs. Gerry Thompson lived in Atikoken for six years before becoming Thompsonites in May, 1961. They came originally from Port Arthur. Gerry works in the electrical department. Their children are John David, 9; Jo-Ann, 5; Denis, 7; Christine 2½ months.