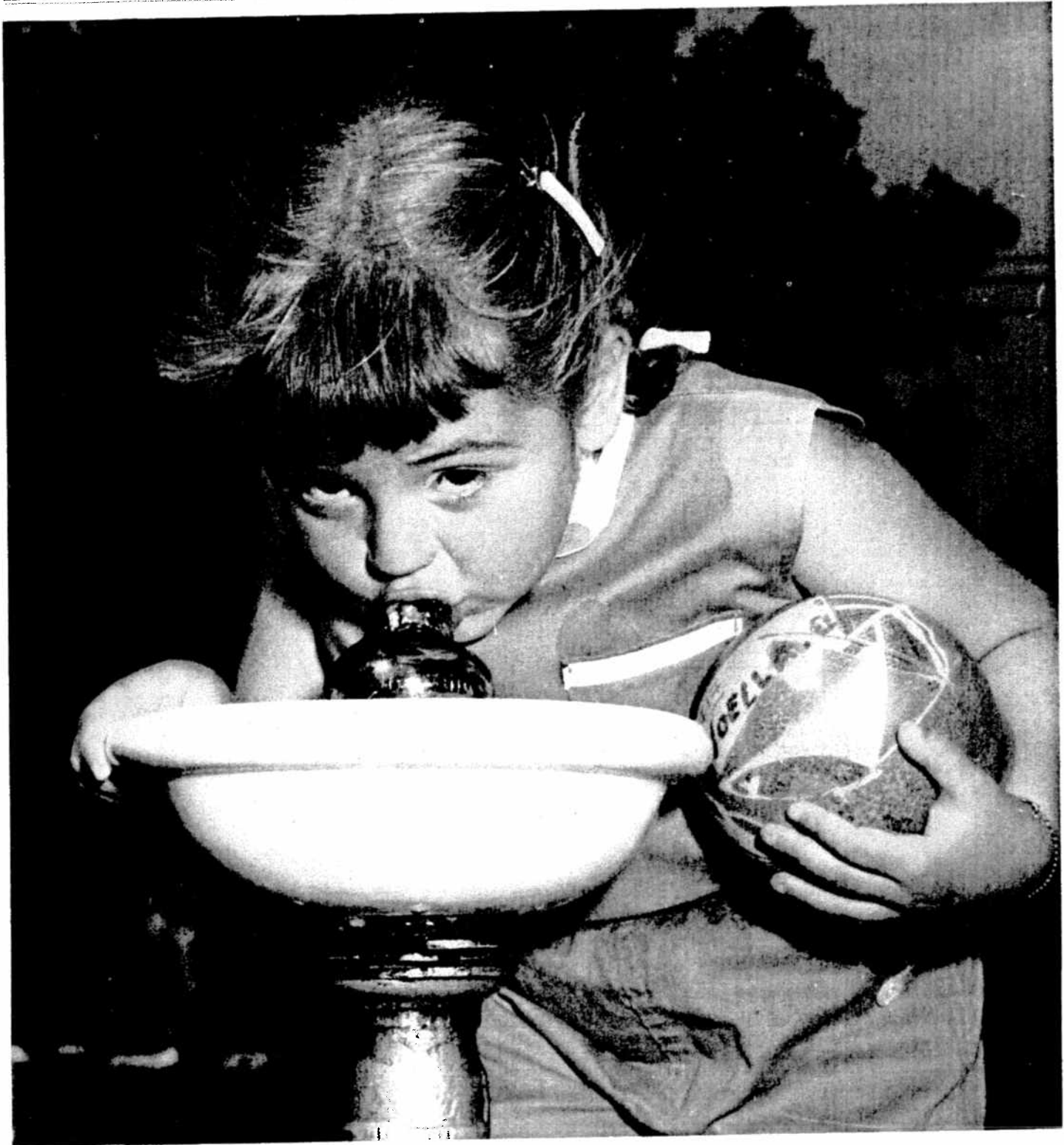


# INCO TRIANGLE

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NUMBER 3



Fountain of Youth



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Don M. Dunbar, Editor.

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## Anglers Say Bass Is Best

Bass time is approaching. And that, for thousands of fishermen and women, means action. For while it has been preceded by speckled trout and pickerel fishing, the largemouth and smallmouth bass season stands first in the affections of all.

There are several reasons. First, perhaps, is the fact the bass is regarded as the gamest of fresh-water fish.

Next is the fact that he is found almost anywhere from the Great Lakes to the extreme north; from the eastern to the western boundaries of Ontario. His willingness to hit — at the right time — is proverbial. The pugnacious bronze-back will strike at almost any live bait, at almost any type of casting or spinning lure, at flies and bugs. He may be caught still-fishing, casting or just lazily trolling.

Many experts believe that, even if the bass isn't hungry, he'll smash a lure out of sheer pugnaciousness. That is certainly the case in June when the fish are on the spawning beds, which is the reason the Department of Lands and Forests appeal to sportsmen to give the fish a chance. Where reasonable appeals fail, there are regulations to protect the fish until July 1 when the bass season opens in Ontario.

There isn't a great deal of difference between the largemouth and the smallmouth. They may

be distinguished apart, however, by the fact the mouth of the largemouthed fish extends beyond the eye.

Colour isn't much of an indication; both fish are dark green, ranging to brown or almost black, depending on the water in which they are found. Generally, however, the largemouth may be found in warmer waters than the other type and not infrequently they are larger. For instance the world's record largemouth, caught in Georgia where waters are warmer than in Ontario, is a 22 lb. 4 oz. fish. The largest smallmouth on local record weighed nine pounds two ounces and was caught in Nipissing County, Ontario. However, the world's record fish weighed 14 pounds and was taken in Florida.

Despite tremendously increased fishing pressure, the bass is still doing well in this province. Given reasonable protection, a female bass will produce a family of 4,000 to 5,000 youngsters. In addition, the department operates a number of bass hatcheries and recently has had marked success in transferring fish from lakes in which they were not doing too well because of overcrowding to other lakes which give them a better opportunity to grow and reproduce.

Both types like crayfish, frogs, worms, minnows and insects. Leeches and helgramites are also among their favourite foods.

Department officials admit it is difficult to define exactly where the best spots for "opening" day are, because both fish are distributed fairly well throughout the Province.

But for the largemouth variety, there's no question of the popularity of the Rideau and Kawartha Lakes districts, Lake of the Woods and similar areas. The Rideaus, particularly along the canal which runs from Kingston to Ottawa, are weedy, have many flooded areas in the connecting waterways and annually produce as many and as large bass as any other spot in the Province. Average size runs from two to three pounds although seven and eight-pound fish are frequently caught and are usually big enough to take prizes in the innumerable fish contests.

As for the smallmouth, you can start on the island of Toronto Bay and work anywhere east or west from the Thousand Islands to the St. Clair River and get bass. To the north, they extend beyond Lake Nipissing and west to Lake of the Woods where they were first introduced years ago because of their popularity among fishermen.

Bass fishing is particularly good in the Bay of Quinte, along the reefs and shoals of Lake Erie, almost anywhere along the south shore of Lake Huron and in Georgian Bay, the Manitoulin Island, Lake Nipissing. Rocky lakes and rivers are popular spots, fast or slow water, if it is cold, all produce the fightingest fish of all.

Don't worry too much if the fish don't hit as soon as you see them, experts say. There are places where you can see thousands of them in relatively shallow water. There are times when both fish are exasperatingly slow to hit. But there are also times, as any fisherman knows, when the fish strike

## J. Roy Gordon at Copper Cliff



On a recent visit to Copper Cliff, J. Roy Gordon of New York, executive vice-president of Inco, discussed some of the Company's plans and problems in an informal address at the Copper Cliff Club. Here he is greeted by L. S. Renzoni, superintendent of research (left) and H. F. Zurbrigg, chief geologist.

so fast you can't handle them. The limit is six per day regardless of size.

### MYSTERIOUS FOREIGNERS

Two students from a Canadian college who made a motor tour of the United States last summer report that their blazers seemed to arouse some curiosity among the people they met. The blazers bear the college's Latin motto, *Timor Dei principium sapientiae* — "The

fear of the Lord is the beginning of wisdom."

The curiosity was explained when an Oklahoma waitress asked them: "Where are you-all from?" "Canada," they answered.

"Oh, I see," said the girl "I've been wondering what language that was."

God will not examine you for medals or emblems, but for scars.

—Elbert Hubbard.

## Jack Wins Award



"There's gold in them thar mills" quips veteran concentrator mechanic leader Jack Johnston as he shows young Blair Purvis a \$50.00 suggestion plan award. Jack's winning idea was for an improvement of the weir discharge heads on the Marcy mills.

## Heap Big Chief Ernie Smith Feted



Farewelled at a rollicking stag party was able, popular Ernie Smith, who has been transferred to the great Inco development in northern Manitoba as project superintendent at Moak Lake. A tomahawk, string of wampum, bow and arrow, and a pair of 8-foot snowshoes were among the gifts showered on him by his thoughtful friends, along with a powerful short wave radio set. On the left above is "Pete" Peterson, who succeeds Ernie as superintendent at the open pit, and Bob Brown, one of his old colleagues at Creighton. Ernie's fine record with Inco dates back to 1930.



On the left above are Mr. and Mrs. Arthur Gauthier, Minnow Lake, with their sons Gerald, 13, Lucien, 22, and Ronald, 19. Mr. Gauthier works at the Coniston smelter. On the right is a Port Colborne family, Mr. and Mrs. Ed Wynn, with Norma, 9, Gail, 7, and Robert, 11.

## INCO FAMILY ALBUM

Mr. Parris, the new safety engineer at Frood, is seen in the picture below with his wife and their sons David, 7, and John, 4. At the right are Mr. and Mrs. Ken Robb, Lockerby, with Barbara, 2, Linda, 9, Gwen, 15, Patsy, 12, Ronnie, 10, and Judy, 5; also Wiggles and Nibbles, about 3 months each. Mr. Robb is librarian at the research lab in Copper Cliff.





## Levack's New 6000-Ton Mill Taking Shape

As is evident in the accompanying photographs, steady progress is being made on construction of Inco's new mill at Levack mine.

About 5,000 yards of concrete have been poured to date of the 30,000 yards the plant will require. Some 1,700 tons of reinforcing steel will be used in the concrete work.

Foundations for the three concrete fine ore bins, each 50 feet in diameter by 58 feet high, the coarse ore bin 50 by 39 feet, and the rock bin 28 by 53 feet, are well under way.

In the centre foreground of the top picture are three completed foundation walls of the seven that will help support the fine ore bins and conveyors; across the tops of these walls will be poured a slab of reinforced concrete 8 feet thick, 54 feet wide, and 150 feet long.

The crushers and grinding units will be located at the lower right of the area shown in the first picture, and the flotation section will be situated on the elevation from which the picture was taken. The long low building at the top of the photo is the construction company's warehouse.

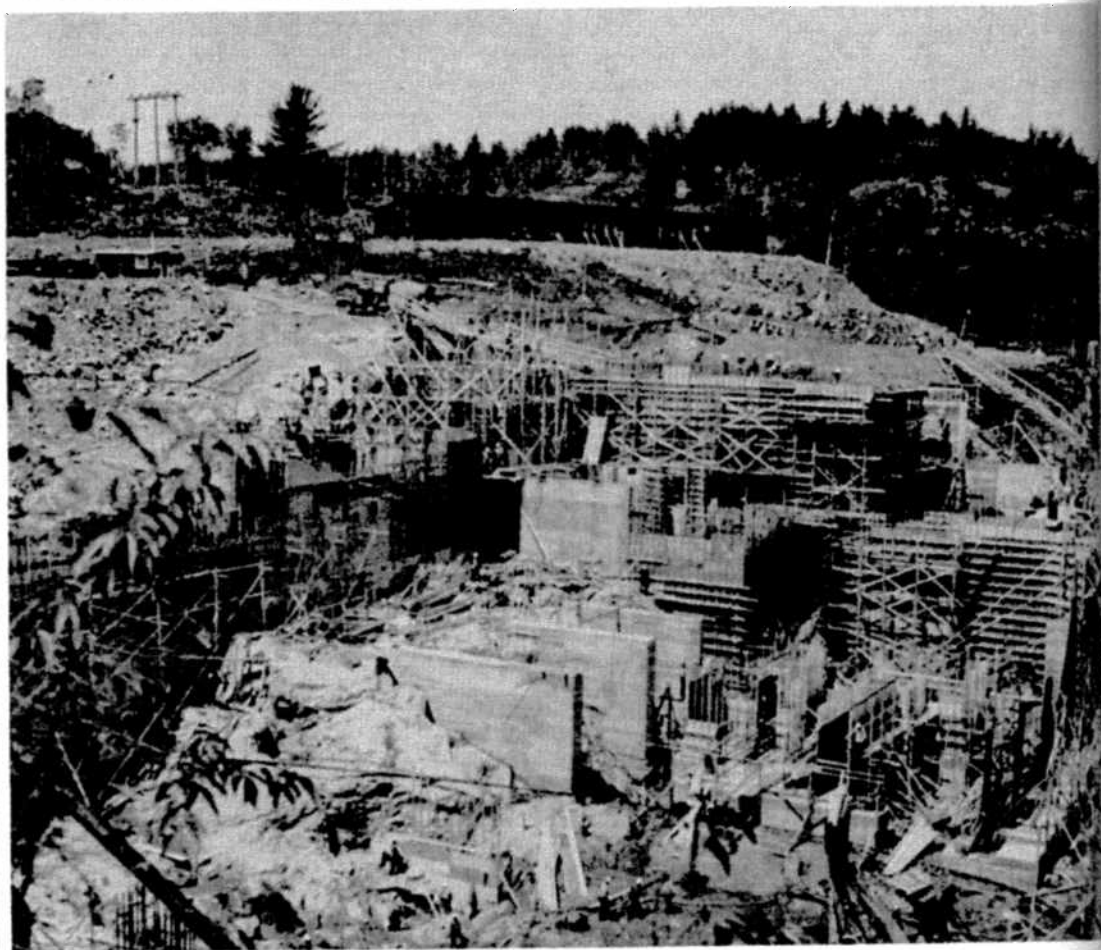
In the foreground of the second picture, which shows the location of the new mill in relation to Levack mine's No. 2 shaft, are the forms for the concrete rock bin. Beyond are footings for the three big tray thickeners of the dewatering section, each of which will be 60 feet wide by 12 feet deep. At right centre can be seen the tunnel beneath the railroad tracks through which mill employees will pass on their way from the parking lot to their new changehouse.

Unlike the Creighton mill, which produces a bulk concentrate pumped to the Copper Cliff reduction plant by pipe line, the Levack mill will produce both nickel sulphide and copper sulphide concentrates, the former to be shipped to Coniston smelter and the latter to Copper Cliff. Important advantages of this arrangement will include the providing of sand fill for Levack mine from the mill tailings. Removal of overburden preparatory to construction of the sand fill plant has been started at the site of the old No. 1 shaft, 400 yards east of No. 2 shaft.

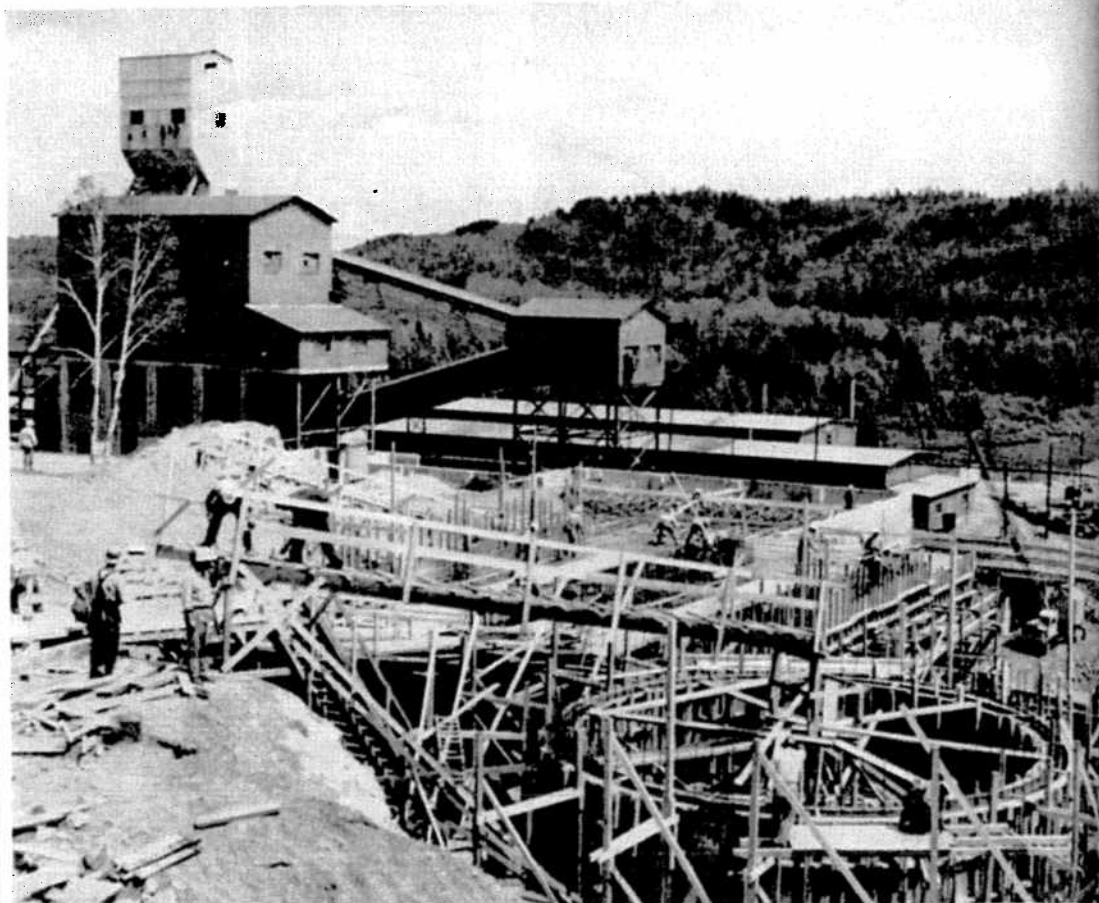
Total cost of the new Levack plant is estimated at \$12½ million. It will have a rated capacity of 6,000 tons per day. The Foundation Company of Canada has the construction contract.

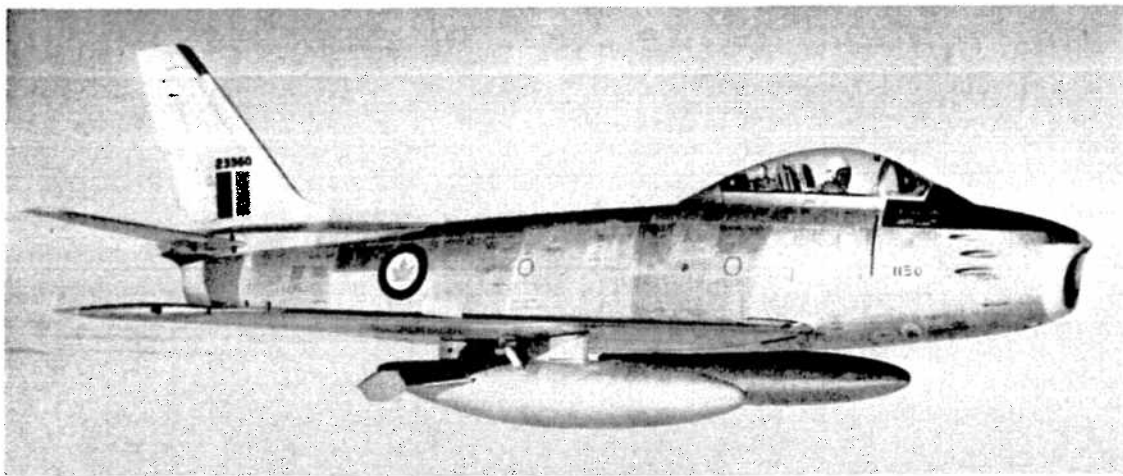
### HUMBLE TASKS

Not all the acts of human helpfulness can be assessed as great achievement, but the hint of it is there.



A GENERAL VIEW OF THE BUSY CONSTRUCTION SCENE AT INCO'S LEVACK MILL





He gets the supreme thrill sifting through space at 500 miles an hour in a Sabre jet . . .

## Flying Jets Is Regular Hobby Of Gren Rogers

"Bogey crossing port to starboard, 1,000 low," said the voice in the ear phones.

At the controls of his Sabre jet Gren Rogers knew from this that an enemy aircraft had been picked up on his ground control's radar screen, approaching from his left, 1,000 feet below him.

"Bogey 10 o'clock at 4," said the voice.

This meant that the enemy was 60 degrees to Gren's left and four miles away.

Screaming out of the sun at 500 miles an hour Gren closed the gap, proceeding according to instructions for peace or war.

This is the sort of thing that Grenville Rogers does for a hobby, like some fellows collect stamps or train bird dogs. A surveyor with Inco's geological department at Copper Cliff in his working hours, he's a member of 400 Fighter Squadron (Auxiliary) in his spare time.

Every fortnight, at his own expense, he travels to Toronto to spend a week-end flying T-33's or Sabres as a member of the RCAF reserve pool of fighter pilots. He does this partly because he thinks Canada must have a nucleus of experienced pilots on tap in case of enemy attack, and partly because it gives him a terrific thrill.

He has been specializing on training in ground-controlled interception of enemy aircraft, using radar. He holds the rank of flying officer, hopes to get boosted to flight lieutenant next month after spending his holidays on operational training with his squadron at Chatham. He is 30 years old.

Gren got his first taste of flying when he was sent up to Sudbury from Toronto by the department of highways on a surveying assignment. He was taxied to the job by Nickel Belt Airways and the moment the aircraft took off he knew he had to be a flier some day somehow.

It was several years before he was in a financial position to take flying lessons, and even then the nature of his work put a lot of difficulty in the way. But he per-



. . . and wears the grin of a happy guy as he walks away from his aircraft after a training flight.

sisted, commuting to the little flying school at Almonte from wherever he happened to be stationed, until finally he got his pilot's license.

Then he joined the voluntary RCAF auxiliary and trained for a year at Calgary and Portage la Prairie, starting on Flying Vam-

pires, the first Allied operational jet fighter, then graduating to T-33's and eventually achieving the ultimate at the controls of a Sabre.

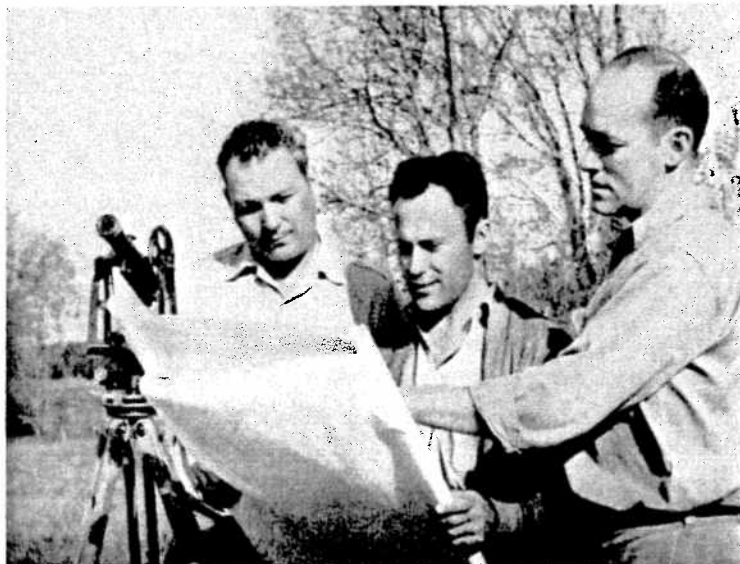
Gren qualified as an Ontario Land Surveyor in 1950, and in 1954 joined International Nickel's geological department. He is as keen on his work as he is on his hobby which is saying something.

Glenna Campbell, whose father owned the J. D. Campbell Lumber Company at Wahnapiatae, became Gren's wife in 1952. They met in Toronto. They have a little daughter, Paula.

On the RCAF station at Downsview airport, or in the squadron's mess at the old Eglinton Hunt Club on Avenue Road in Toronto, this man Rogers is known — inevitably — as "Buck".

## The Front Cover

Taking time out for the pause that refreshes, in our cover picture this month, is 4-year-old Noella Chiasson, daughter of Mr. and Mrs. Gemille Chiasson of Melvin Street, Sudbury. The picture was snapped by Rene Dionne on a Saturday afternoon at Bell Park. Noella's dad is a slusherman at Stobie mine, where he has worked for six years.



On the job Gren (centre) is a surveyor with Inco's geological department. Here he discusses a survey with two of his instrument men, Freeman Marshall and Lou Emon.

## John Bello Smelter Man for 40 Years



John Bello receives from Lucien Tremblay a ribbon carrying the names of 200 friends who took part in his retirement send-off.

After more than 40 years with Inco, John Bello has retired on service pension. Almost all his time was spent in the reverberatory furnace department at Copper Cliff where he was highly rated as a tapper.

Born in Austria in 1896 John landed in Montreal in 1913 and became a mail carrier. Coming to Sudbury the following year he worked on the CPR and then as a cook in lumber camps around Webbwood. He joined up with Inco in 1916 and but for the shutdown period in 1921, worked in the smelter since that time.

At a party held in his honour at Sampo hall the SRO sign was hung out and the boys really gave him a send-off to remember. He was presented with a wallet full of that nice green stuff.

In 1923 John married Esther Deminion in Chelmsford. They have three daughters, Kay, Mary and Doris, all married and living in Toronto.

John is moving to Toronto to be nearer his family and his nine grandchildren. In robust health, he is looking forward to a long and pleasant retirement. The best wishes of his many friends go with him.

## Tanning Time is Here



Soaking up some warm spring sunshine as they load a mine truck with chute blocks are Art Reid and Walter Ranta of the surface crew at Levack mine. What a tan they'll have by summer's end!

# The Scene in a Lamproom at the Start of Another Shift



There's a soft hum of conversation in the lamproom as the miners, having picked up their lamps at the charging racks, chat quietly while awaiting the cage for underground. Sitting on their upended lunch buckets they talk easily of their families, work, gardens, cars, fishing, holidays. There is good-natured kidding. The atmosphere is pleasant and relaxed. Gradually the crowd thins out as the various levels are called over the loud speaker and the men walk out to the collar to board the cage. This picture was made at Frood-Stobie No. 3 shaft, where the lamproom has recently been converted to self service like those at the other Inco mines. In the background can be seen the racks surmounted by their charging panels, supplying about 2,100 electric cap lamps.

## Recounts History of Inco's 10-Year Manitoba Odyssey

Inco's 10-year odyssey in northern Manitoba, starting in 1946 with small geological reconnaissance parties and culminating in the Thompson and Moak Lake discoveries and the launching of a \$175,000,000 nickel industry, was related in an address to the Winnipeg Chamber of Commerce by Ralph D. Parker, vice-president and general manager of Canadian operations.

The story starts, Mr. Parker said, at the end of World War II when Inco was able to renew its far-flung exploration program, which of necessity had been drastically curtailed during the years of conflict.

Particular attention was at once re-directed to Northern Manitoba by the Lynn Lake nickel discovery. Among other beckoning signs were the showing at Rice Island in Herb Lake, the George Black claims straddling the east bay of Grassy River and Kwasitchevan Falls, and the Roberts discovery at Ospwagan Lake.

Our Company took up the challenge. Here in this vast uncharted land, it felt, could be the strategically situated location of large new nickel supplies.

The search was to prove a long, gruelling and expensive one — to the mining man a familiar story, to the layman a fascinating one.

And so early in 1946 Inco's geological reconnaissance parties entered the huge stronghold of the Pre-Cambrian Shield and, with

aerial supply support, travelled the water routes by canoe studying the geological structures and looking for the type of rock usually host to nickel sulphides.

### A Strange Device

About this time people at Sudbury were startled one day to see a strange bomb-shaped-object being 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 first commercial airborne magnetometer survey, testing its use over the known ore occurrences of the Sudbury Basin.

Thus was brought to Canadian mining a tool of geological exploration that was to have a profound influence on our nation's development and progress.

In this modern prospecting method, with what of course was promptly nicknamed "the flying doodle-bug", readings are obtained by air instead of on foot of variations in the earth's magnetic field that might be caused by the presence of ore.

Sent into action over northern Manitoba this technique swiftly proved its usefulness in exploring a country where vastness and inaccessibility presented a prospecting problem of staggering proportions.

Further complicating the geological investigation of this hinterland was the almost complete

absence of outcrops. Seldom one to give up her treasures easily, Nature had hidden these far more cannily than at Sudbury, where as I have said most of the mines were dis-



Ralph D. Parker (centre) while on a visit to the Inco geological exploration camp at Moak Lake.

covered by surface showings.

The nickel deposits of the Mystery-Moak Lake area, it was later found, are associated to a large extent with a soft basic rock known as peridotite. Glaciation, which scoured that part of Canada in recent geological time, cut deeply into this soft material and in consequence nearly all of the peridotite comes to the earth's surface under waterways or is found in valleys deeply buried under glacial debris. Fortunately the magnetometer is effective in searching out these hidden bodies due to their magnetite content.

### An Urgent Assignment

While the air-borne magnetometer was charting variations in the magnetic field of Manitoba's northland, an Inco research team was tackling an urgent assignment of developing instruments that would select from these magnetic anomalies those more favorable for detailed follow-up investigation by nickel-seeking ground parties.

It was not long before this research bore fruit in the form of highly sensitive electronic devices that greatly facilitated our aerial exploration work in Manitoba and elsewhere.

Electro-magnetic signals, sent down from an aircraft, were returned from the earth and picked up by an electronic receiver in the bomb-shaped container towed by the plane. Through the towing cable these signals were relayed to a chart recorder in the plane. A continuous strip camera, synchronized with the recorder, made photographs of the flight line.

Back at Inco the geophysicists examined the charts for irregu-



larities possibly caused by the presence of nickel minerals. From the film strip they pinpointed these interesting areas. Ground crews were then sent in to make a more detailed search.

Thus newly armed, the painstaking search of the northern Manitoba wilderness went on. Continuing a campaign blocked out in 1948, Inco's sky-riding prospectors flew as much as 28,000 air survey miles in a single year.

Down below our geologists and geophysicists and their diamond drill crews fought the muskeg by summer, the cold by winter, the loneliness and hardships of bush camp life, the disappointments and discouragements of their long quest

#### Hundreds of Disappointments

To appreciate their problems let's take a look at a hypothetical example more or less typical of hundreds of disheartening experiences during the course of our exploration program in Manitoba. The aerial magnetometer, let's say, has told us that at a certain spot in the wilderness there is an interesting-looking anomaly. This lead is then confirmed when the area is flown with electro-magnetic gear or "air-e.m.," as we call it. So a geophysical investigation crew of five or six men is flown in, landing on the nearest suitable lake. They set up their camp, arrange their supply service by aircraft from their base, make sure the cook is comfortably established, and then make their way perhaps several miles through the bush to the point where the air-e.m. survey says there is a conductor. They blaze a control line for a quick check with both magnetometer and electro-magnetic apparatus, and perhaps find the signs favorable.

So they cut their pattern of grid lines, two or three hundred feet apart as the case may be, and get busy on a detailed geophysical examination of the area. This may take them five or six days. At the end of that time let's say the results of their investigation are still encouraging. It is decided to put down a diamond drill hole. A tractor and a drill are flown in, and a road is cut from the lake so they can be moved to the drill site. Finally drilling is commenced and, if the overburden in that particular area isn't too deep, core samples of the conductor may be obtained in a week or 10 days' time. The geologist examines them, decides they are mineralized, and sends them out by the service aircraft for assay. In due time back comes the verdict — the assay result shows no economic quantity of minerals present. So the area is abandoned and the explorers move on to their next prospect. Thus, time after time, with some variations of course, went the search.

As we mentioned earlier, our first efforts in Manitoba, beginning in 1946, were directed to the Lynn Lake area, but as early as 1947 we were also active in the Bird River area 100 miles north-east of Winnipeg, and in the Jackfish Lake area 60 miles east of Flin Flon. Jackfish Lake is significant not only for its nickel showing but also because it lies in a belt of interesting geological formations that led us north-easterly to Mystery and Moak.

## Rovers and Shmoos Win Refinery Mixed League Prizes



Dinner and dancing went along with the presentation of prizes as the copper refinery's mixed bowling league wound up another much-enjoyed season. In the picture on the left are the league champs, the Rovers, winners of the Rock Iron trophy: seated, Pat Korosil, Carm Jennings, Doreen Kaczowski, and Ingrid Dobson; standing, Stan Dobson, Ted Kaczowski, Jim Korosil and (not shown) Moe Jennings. On the right are shown the Shmoos, who won the Papineau Jewellers trophy: seated, Kay Holgate, Olive Keegan, Rita Marshall, Bea Bourgeault; standing, Rene Bourgeault, Ernie Holgate, Charlie Marshall. Grand slam star of the ladies was Ingrid Dobson, who rolled a 360 for high single, a 775 for high triple, and 212 for high average.

#### Headed in Right Direction

The weight of our Manitoba program shifted to the Jackfish Lake-Mystery-Moak belt in 1948 due partly to promising indications in this area, and partly to discouraging results elsewhere. In that year an airborne magnetometer survey was begun in the vicinity of Jackfish Lake and extended for 100 miles to the north-east. Geological and geophysical ground crews began assessing the airborne anomalies before the survey was complete, and ranged an additional 25 miles north-easterly to within a few miles of Mystery Lake. Also in 1948, and as a result of these investigations, three claim groups were taken under option and diamond drilled. One of these groups was optioned from the trustees of Kathleen Rice and now constitutes part of our holdings on Herb Lake. The second group optioned from Mike Huot and Felix Bourdeau, and also located on Herb Lake, and the third group on Ospwagan Lake was acquired from William Hurst and associates.

The options on the last two groups were not exercised.

Inco's third year in the Jackfish-Mystery-Moak belt (1949) has become noted principally for Mr. Walter Johnson's restaking of the Mystery Lake nickel occurrence, first held by Mr. Gordon Murray in 1927, and the optioning of this property, to Inco. It has been said that Inco's interest in the area arose from this discovery. Without wishing to minimize the fact that Mr. Johnson was wise enough to anticipate Inco's inevitable arrival at Mystery Lake and profited accordingly, I would like to point out that although the Mystery Lake occurrence helped to keep us in the Jackfish-Mystery-Moak belt, two years of earlier activity on the same geologic structure is ample evidence that it was not the reason for our being there.

An interesting and heretofore unpublicized feature of the Mystery occurrence is that it has the distinction at this stage of being Inco's most costly disappointment in Manitoba. We still have hope

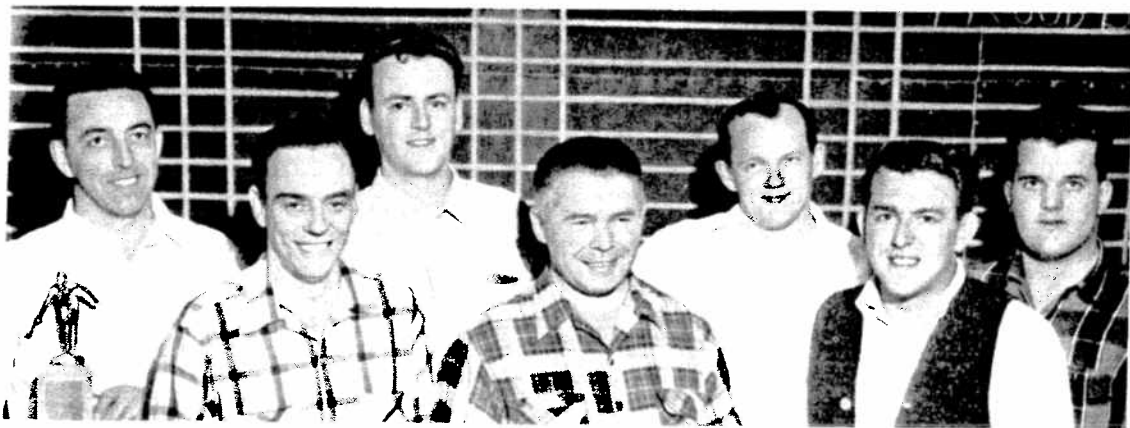
for the future but past expenditures of about \$1,000,000, including the cost of 130,000 feet of diamond drilling, have failed to locate nickel ore deposits of economic significance, at this time.

The years 1950 to 1955 first saw our survey of the Jackfish-Mystery-Moak belt advance 100 miles past Mystery Lake until it covered a total length of 220 miles. Then by a process of elimination the area of most interest was reduced to a final length of 80 miles. This period was characterized by an ebb and flow of enthusiasm that reflected times of encouragement and disappointment.

#### Sank Exploration Shaft

A large number of sulphide occurrences were located by geophysical means and then diamond drilled. Most were barren or contained only small quantities of nickel, but a few held some promise of being commercial. Moak, discovered in 1952, was the best of these and when diamond drilling from surface proved inconclusive

(Continued on Page 11)

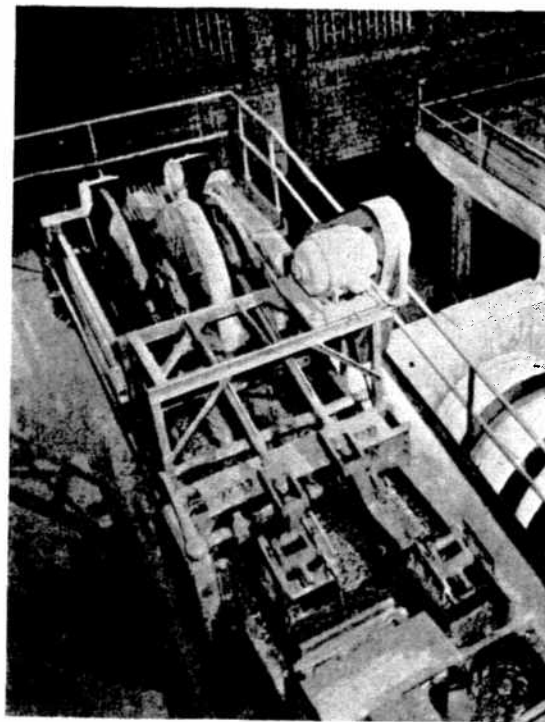


These happy looking gents won top honors and the silverware in the Copper Cliff bowling loop playoffs at the Inco Club. In the front row are Harry Adams, Bucky Basso, and Larry Napran, and behind them are Ray Gilbeau (captain), Jay Jennings, Gerry Bush and Bill McDonald. The league had 18 teams and the boys say there were lots of good close games.

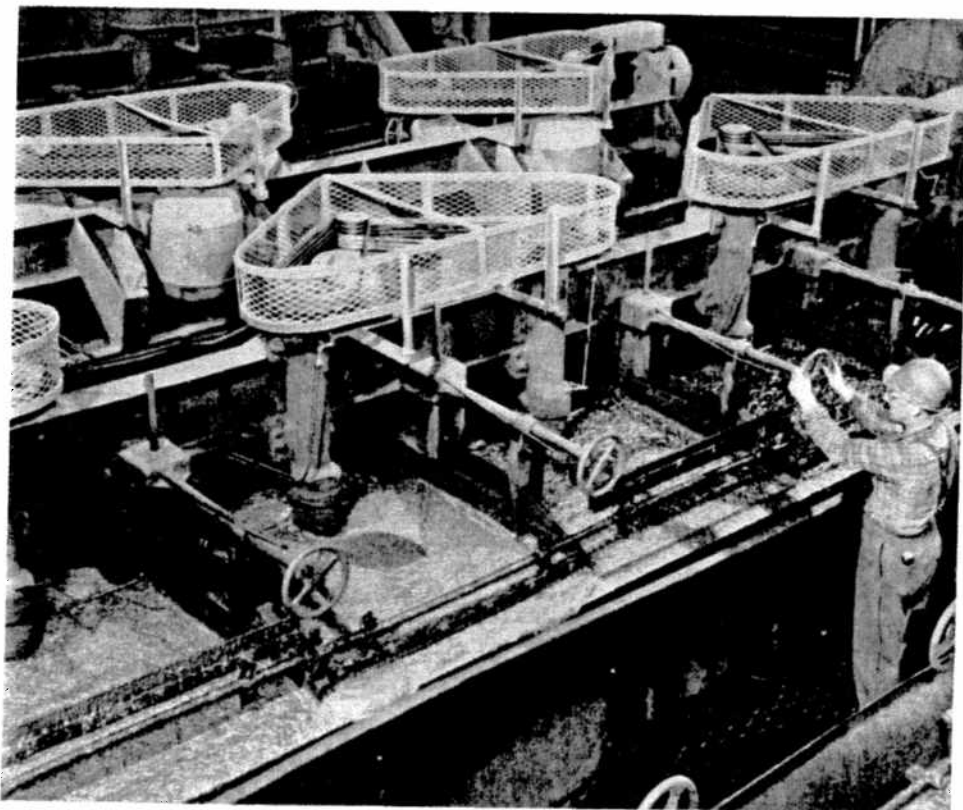
# Completing Separation Process Started by Casting a



Rich in crystals of copper and nickel sulphides, now clearly defined through the metallurgical magic of controlled cooling, the gleaming matte arrives by conveyor at the grinding section of the separation department. Don Giommi is seen checking the feed to one of the rod mills.



A team of two mills and their classifier are shown. One mill is loaded with rods, the other with balls, and both are used to grind the pulp. Water and reagents are added to the classifier the pulp is raked back and to the next stage of the operation and the classifier. There are 12 mills and six rake classifiers in the separation department. Standing beside the rod mill is Gord Willis.



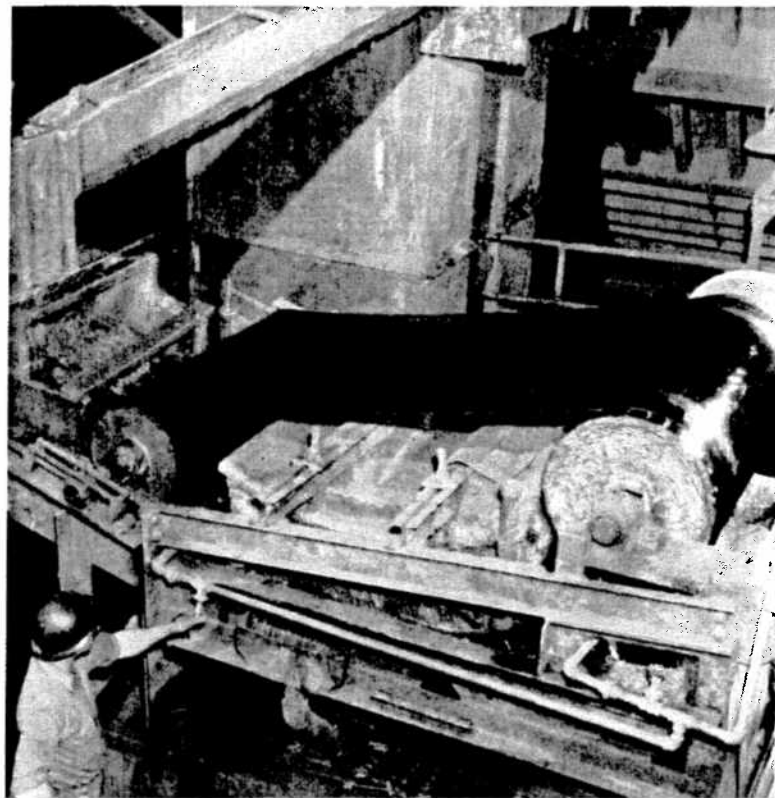
This is the type of machine used in the primary flotation steps in the separation department. The pulp enters at the left and as it passes from cell to cell the froth carrying the copper sulphide particles is swept off by the paddles. The decreasing proportion of copper is indicated by the increasing lightness of the froth in the cells farther from the camera. Adjusting the machine is Roger Violette, flotation operator.



For the final stages of flotation another type of machine is used. This is a large tank in which the bubbles bearing the copper sulphide particles are floated to the surface by the agitation of the pulp. Air is introduced into the tank through a rotor covered with a rubber blade. Rheal Simard is the flotation operator helper.



# Controlled Cooling of Converter Matte



is picture. One of the mills in they grind the matte finer the grinding. Fed from the the finer portion overflowing returned for further grinding. partment. The grinderman

Belt-type magnetic separators like this remove from the pulp a small portion of metallic particles that require extra treatment. An electro-magnet holds them to the belt while the copper and nickel sulphide particles drop by gravity.



is used in s are over- the bottom d blanket.

Separated at last, the copper and nickel sulphides go their individual ways. The next step for both of them is partial dewatering in huge thickener tanks like the two shown above, which measure 36 feet wide by 12 feet deep. On the first machine Pat Striemer is adjusting the level of the rakes which, attached to revolving arms, draw the settled sulphides to the discharge opening in the bottom.

## Tiny Crystals Of Sulphides Finally Won

Separation of the copper and nickel sulphides crystallized by controlled cooling of converter matte at Copper Cliff smelter is the second step of the fascinating Inco process that unlocks in a few days a complex which Nature took millions of years to create.

The first part of this feat of metallurgical magic — segregating the crystals in the matte so they can be separated by grinding and flotation, was described in the Triangle of November, 1956. Let's have a brief play-back to pick up the continuity before we go on with the story.

Brought from the nickel converters to the casting and cooling department, the molten bessemer matte is poured into moulds holding 25 tons each and covered with insulated steel hoods. Cooled very slowly through the solidification and transformation range it separates into independent crystals of the various constituents.

The final mass in the mould consists of crystals of copper sulphide, nickel sulphide, and a metallic alloy of copper and nickel, all clearly defined, accompanied by the small percentage of precious metals associated with them.

Worked over by a big steam hammer and then put through crushers, the matte is sent by belt conveyor to the adjoining separation building for the second part of this remarkable process.

Grinding mills give the silvery matte a rugged reception in the separation department. Mixed with water it is pummelled and pounded until it is fine enough to overflow from the classifiers. During the grinding ordeal reagents are added in preparation for a later operation.

Now the matte has been beaten to a pulp containing particles of the two sulphides and the metallic alloy of copper and nickel formed in the cooling process because there wasn't enough sulphur to go around. This pulp goes through belt-type magnetic separators in which the small proportion of alloy particles, being high in metallic nickel and hence magnetic, are held to the belt by an electro magnet and thus are diverted from the flow of pulp carrying the nickel and copper sulphide particles.

The metallic alloy particles then take off on travels of their own in the course of which they are whirled around in centrifugal filters for drying, and then treated by a separate process.

For the nickel and copper sulphide particles, after their free ride through the magnetic separators, the next item on the program is selective flotation.

The reagent materials put into the pulp in the grinding mills promptly struck up a friendship with the copper sulphide particles, covering them with an oily coating that makes them attractive to air bubbles. In the flotation machines air bubbling through the pulp

(Continued on Page 13)

# Classy Safety Achievements Are Rung Up

Inco's safety minded supervision and men are rolling up some very impressive accident-free shift totals as additional groups pass that coveted goal, the 100,000 safe shifts mark.

Five more groups, all in the reduction section, have joined this select circle and at presstime four of them were well on their way toward their next 100,000.

Blast furnace foreman Sid Smith of Coniston and his men set a record unprecedented so far in available smelter safety records by going more than 20 years without a lost-time accident. With an average crew of around 20 men per shift they had built up a total of over 139,000 accident-free shifts before their record was broken last June. As of last month Sid had more than 7,000 shifts credited toward a new record. Another outstanding Coniston safety achievement was made by the machine shop, under foreman Bill Johnson, who built up a total of 187,675 safe shifts over a period of 15 years.

The Coniston miscellaneous fitters, chaperoned by Verdell Price, have rolled up a total in excess of 160,000 safe shifts. They have not had a lost time accident since October, 1942, and passed the 100,000 mark in September, 1952. Sharing in this fine record are Inco pensioners Gene Tancredi and Joe Gobbo who preceded Verdell as foremen of this gang. About 50 shifts a day is the average of this group.

At Copper Cliff mill Bert Wood's gang have piled up a total of over 117,000 safe shifts and show no signs of stopping. They had their last lost time accident in December, 1952, and passed the 100,000 goal in June, 1956. They average about 40 men per day but previously were a larger group.

The crushing plant's Joe Price

has also built up a fine record with over 117,000 safe shifts to the credit of his men. The records indicate that Joe has never had a lost time accident. His gang made their 100,000 shift mark in December, 1955, and are adding to it at the rate of around 35 shifts a day.

Pete Duffy and his crew at the roasters have not had a lost time accident since 1948 and at the end of May had rolled up more than 166,000 accident-free shifts. They are increasing this at the rate of about 50 shifts a day.

While on the subject of safety records, reduction section safety engineer R. J. McNeill pointed out that five other members of that section's supervision and their men have also reached the 100,000 mark. "Happy" Clarke, Bert Charron and Ray Doucette, all of the mill, made 163,000, 121,000 and 103,000, respectively, and in the nickel reverbs Herbie Eastwood scored 125,000 and Mark Healy 186,000 before having their records broken.

In the mines section Creighton mine came up with another 100,000 safe shifts this spring. This makes a total of six times they have made the big mark since 1944 — a very creditable record.

Over at the copper refinery the gang in the silver building have posted an enviable achievement. Dating back 10 years to May, 1947, their record totals 85,065 safe shifts and this with a comparatively small crew too. The power division of the refinery mechanical department, however, have really outstripped everyone else there — since November, 1943, they have amassed a total of 147,847 safe shifts!

All Inco pays tribute to these men and their continued safety success will be followed with keen interest.

## RECHARGEABLE CELL

A new rechargeable cell for use in flashlights and other portable electric lanterns has recently been put on the market. Hermetically sealed, the nickel-cadmium battery cell can be recharged more than 200 times and will not deteriorate if either overcharged or undercharged.

## It's Hard to Say Goodbye to the Old Gang



A comfortable pension at the end of a man's working years is a mighty fine thing, as Jack McDonald and many another will say, but still and all it's hard to bid goodbye to the old gang. The fellows at the separation plant at Copper Cliff, where Jack was a centrifuge operator, rallied around for his leave-taking to wish him a happy retirement. George Hutchinson is seen presenting him with their farewell gift. Jack worked for Inco for 28 years.

## Annual Military Ball Was Brilliant Affair



In the pictures above and on the right are three Copper Cliff couples, Mr. and Mrs. Norm Kneeshaw, Mr. and Mrs. Tom Peters, and Mr. and Mrs. Bruce Seli, who were among the guests at the annual military ball given at the Canadian Legion memorial hall in Sudbury by the officers of 58th LAA Regt. RCA and 33 Tech. Sqn. RCME.

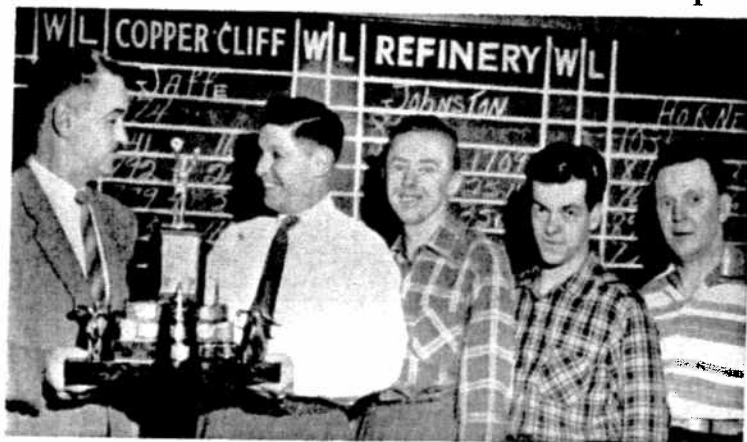
Heading the receiving line at the brilliantly successful ball were the commanding officers of the two units, Lieut.-Col. W. E. Watt, ED, and Major D. H. Forster, OBE, ED, with their ladies. The Sudbury Legion pipe band played on the promenade to welcome the guests as they arrived. Music for dancing was given by the bands of the Canadian Brigade of Guards at Petawawa and 58th LAA Regt., the latter under the baton of Capt. Thos. Clegg. The hall was handsomely decorated to provide an effective background for the lovely gowns of the ladies.



## NOT BORN WITH IT

"It takes a lot of thought and effort and downright determination to be agreeable."

## Chuck Bronson Leads Inter-Plant Champs



Sudbury Inco Club's inter-plant bowling champions, Copper Cliff all-stars, are seen receiving their trophy from club steward Vern Tupling. They were the five highest average bowlers in their league and out-trundled a like quintet from the Frood league for the title. Other entries were Creighton, Garson and Copper Refinery. Left to right they are: Chuck Bronson, Val O'Neill, Roger Sabourin and Gord Fugard; not shown, Fred Rogers.

# Urges Closer Ties With Our Universities

Delivering the convocation address at the University of Manitoba last month, Henry S. Wingate, president of Inco, urged individual members of the public and business and industry to become intimate with the great institutions of learning that are serving them.

"Not only is their financial help needed to make this service possible, but there is much to be gained on all sides by a sense of participation, partnership and mutual understanding directly between our educational institutions and the many elements of the public who are served."

The honorary degree of doctor of laws was conferred on Mr. Wingate at the convocation by the chancellor of the university, Victor Sifton. The citation paid tribute to Inco's program for aid to higher education in Canada and noted also the role the Company has assumed in the development of northern Manitoba through opening up two nickel mines at Thompson and Moak Lakes, 400 miles north of Winnipeg.

Mr. Wingate in his address pointed to various aspects of the nickel industry "to illuminate its dependence" upon the foundation in



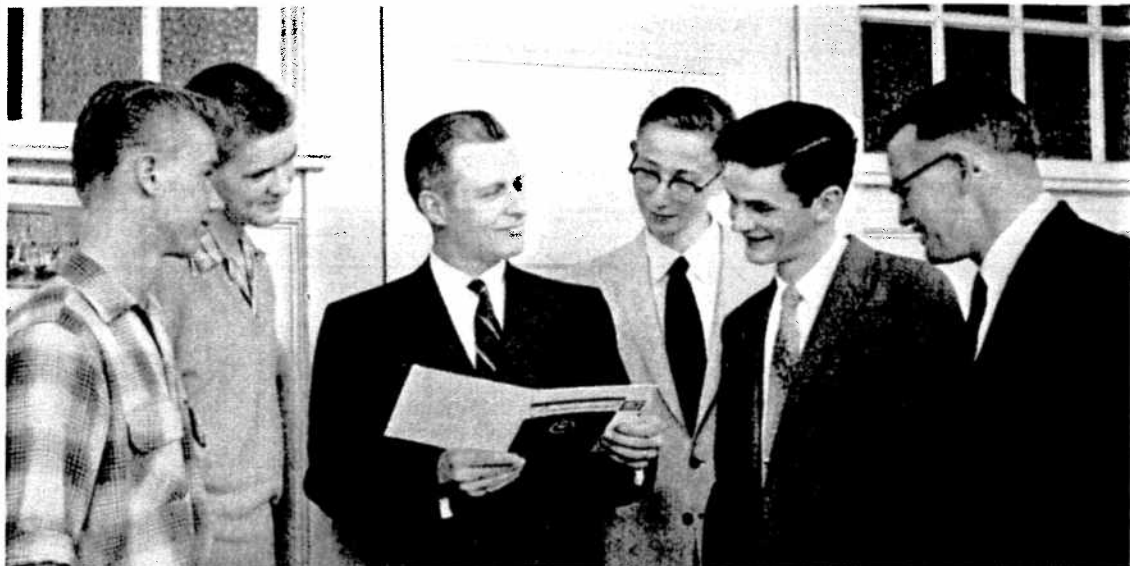
President Henry S. Wingate

education made possible by universities.

He noted that geologists, physicists and chemists, armed with electro-magnetic and other advanced instruments, are needed for highly scientific exploration to discover ore.

For the extraction of ore, he continued, the industry introduces other planners and operators skilled in all aspects of mine engineering.

## International Nickel Prizes Given Mining Students



The annual International Nickel Company awards of \$50.00 each to the students obtaining the highest standing in the four grades of the mining course at Sudbury Mining and Technical School were presented at the commencement exercises by Robert P. Crawford, the Company's director of technical personnel. He is seen above discussing the program with the winners; on the left are Eugene Paulauskas, Grade 10, whose average in mining was 87%, and Allan Campbell, Grade 11, 86%; on the right are Gunter Schatz, Grade 9, 78%, and Donald Scott, Grade 12, 90%, with R. G. McDorman, the school principal.

When the ore is extracted, he went on, there must be ready all of the intricate milling, metallurgical and chemical treatment plants necessary for releasing the elements imprisoned in the ore.

Other skilled personnel are required for the building and maintenance of a broad base of markets for the metals recovered. For this, far-flung technical and commercial staffs are organized in many countries — specialists in the fields of steel, electronics, chemical production, agricultural implements, home equipment and others.

There are needs in industry for men and women possessing a very wide range of talents, Mr. Wingate continued.

He noted that there are already many graduates of the University of Manitoba with International Nickel Company, and he predicted these numbers would multiply now that mines were being developed in northern Manitoba.

In recognition of the university's importance in industry, he said International Nickel has a new five year program under which grants totalling between \$2 million and \$3 million will be paid out in the form of unrestricted gifts to 140 institutions of learning and fellowships and scholarships.

## Recounts

(Continued from Page 7)

an exploration shaft was sunk, and by the close of 1955 two levels were opened up for exploratory drilling.

The year 1956 began with our hopes for the Manitoba area built largely on the pending results from Moak underground. The outcome was uncertain because Moak's mineralization was at best a doubtful base on which to build a nickel industry.

Then came the break. In February, the Thompson ore body was discovered near a small lake 20 miles south-west of Moak.

Almost overnight this deposit proved to be so intriguing that the tempo of exploration was stepped up until 30 diamond drills were in operation along the 80 mile belt.

The moment of decision, involving many millions of dollars, was now close at hand.

It was determined by December, 1956 that a combination of ores from the Thompson and Moak Lake mines would result in an average nickel grade slightly higher than we have produced in the last few years from our Sudbury mines, although containing only very small quantities of copper. Inco without hesitation then set about to launch a major mining operation based on its policy of planning for continuous operation over many years. In this it received the enthusiastic co-operation of the Manitoba government. Ten years and ten million dollars later, our Company's faith in Manitoba was justified.

## "Nice Work, Albert!"



An improved lighting setup on the filter hoppers earned a \$101 suggestion plan award for Albert Charbonneau, a maintenance electrician at the concentrator who has been an Inco man since 1940. He's seen above sharing the good news with Pat Bradshaw.

No nation can be destroyed while it possesses a good home life.

## Four Well-Known Inco Veterans at Pit



This smiling quartet of long-service Inco men was snapped by the Triangle camera at the open pit the other day: Conrad "Joe" Cayen, churn drill operator, who joined the Company in October, 1926; Lindsay Hodgins, general foreman (September, 1927); Lorne Maley (April, 1928) and Mike Kachar (May, 1928), pit miners.



## Need New Alloys For Space Travel F. L. LaQue Says

New alloys and new ways of using them will be required for long-range missiles and vehicles for space travel, says Frank L. LaQue, manager of the development and research division of Inco.

The results of these developments will prove to be valuable for many other purposes, he declared, adding that "as many, or more, beneficiaries will be found in industrial fields on this planet than among the people who make the celestial journeys or inhabit the new worlds they will visit."

Mr. LaQue is among a group of authorities on missiles, rockets and space travel who participated in a two-day conference in Birmingham, Alabama, on "The Age of Space" sponsored by Southern Research Institute. Purpose of the conference was to focus attention on the significance to industry of current developments in the field. In his address, Mr. LaQue reviewed the destructive factors that may have to be dealt with and the properties of the metals that can be chosen to survive these destructive effects.

"It appears that the answers to many of the problems of materials for space vehicles will be provided by the answers to similar problems in connection with supersonic aircraft and long-range missiles," Mr. LaQue said. "These must operate under conditions that in many respects are even more severe than those to be encountered by space vehicles which presumably can more readily avoid the most destructive combinations of speed and altitude . . .

"It would appear that the frames and skins of space vehicles will have to be built of something better than magnesium or aluminum alloys — probably one of the precipitation hardened stainless steels or nickel-base alloys, such as Inconel 'X'. Depending on the velocities to be provided for, there may be a place for titanium alloys now usable up to about 800 degrees Fahrenheit, possibly in conjunction with other materials for components that will have to be strong at higher temperatures. Because of the relatively high density of these alloys, it will be necessary to take advantage of sandwich type composites so as to achieve maximum rigidity or resistance to deformation with minimum weight.

"Iron, nickel and cobalt-base alloys in wrought forms, including sheets, can be made to carry high loads for long periods at temperatures up to at least 1,500 degrees Fahrenheit. Molybdenum, chromium and possibly rhenium and tungsten-base alloys offer the greatest prospect of extending this limit . . . Of these, molybdenum seems to have been receiving the most attention . . . Considerable progress is being made in developing protective coatings for molybdenum, such as nickel-chromium

alloy cladding, combinations of electrodeposited chromium and nickel, precious metals, ceramics and the like applied by various means, such as spraying and vapor deposition. It is reasonable to expect that sooner or later molybdenum can be protected so that it can carry high loads at temperatures over 2,000 degrees Fahrenheit for a useful period . . .

"Subject to limitations imposed by its relatively low melting point and only fair resistance to oxidation, copper is the most economically desirable of the common metals where heat dissipation is the principal consideration. Gold is attractive physically, but not economically. Iron has a much higher melting point than copper, but suffers from poor resistance to oxidation. While nickel occupies only a sort of midway position in the diffusivity rank, it provides in many cases the best combination of diffusivity, melting point and cost.

"Another attractive property of nickel is the facility with which heavy layers having good mechanical properties can be built up by electrodeposition so that fairly massive complicated shapes and sheaths can be achieved by electrodeposition."

In concluding his remarks, Mr. LaQue said that while the problems related to materials of construction for space vehicles will require continued and intensive attention to achieve the further improvements that are desirable, if not actually required, such materials problems will not be the limiting factors in the feasibility of space travel, nor is it likely that the date of the first voyage into outer space will be delayed unduly awaiting the solution of some problems of materials or fabrication.

## Farewell Gifts for Gino



Charlie Dobson offers to open the gift package for a very surprised Gino Netto. In his left hand Gino holds the wallet the boys had just presented to him, which explains his surprise at receiving still another gift. The box contained a scale model hand truck, a familiar object to Gino for many years. A 22-year Inco man, he recently retired on pension from the Copper Cliff mechanical department.

The easiest part about resisting temptation is finding reasons not to.

## Started with Inco At Port Colborne

Striking out for Canada in 1928 when the building trade hit the doldrums in Czechoslovakia, Steve Demko joined Inco at the nickel refinery in Port Colborne the following year. He was rehired at Copper Cliff in 1934 and until his recent retirement on disability pension worked on the reverberating furnaces, where he became a tapper in 1943.



Steve Denko Takes it Easy

In 1919 Steve married Catherina Lazarin. They have two sons and a daughter, all married and living in the Old Country. Not having seen his family since coming to Canada, Steve is planning a trip back, possibly next spring.

Steve has had several sessions in Copper Cliff hospital with a hip ailment, and would like to go on record as saying the treatment and care he received there were wonderful.

He is growing up when he walks around the puddles instead of through them.



## Off to Church

Looking pretty sharp as they step along to church of a Sunday morning are Shirley Mae Guthrie, 6, and her brother Andrew, 8. They have a sister Roberta, 11. Their dad, Walter Guthrie, works on the nickel reverberating furnaces at Copper Cliff smelter.

## UNCONVINCED

Hearing that the young Scotchman had just been married, the insurance salesman made the next call with confidence. At such a time, he realized men were unusually approachable.

"Now that you are married" he beamed on the new husband, "I'm sure you will want to insure your life."

Angus looked at him with profound suspicion, then finally his face cleared. "Awa' wi' ye," he replied. "She's no' that dangerous."

## Trophy Winners in Levack Bowling



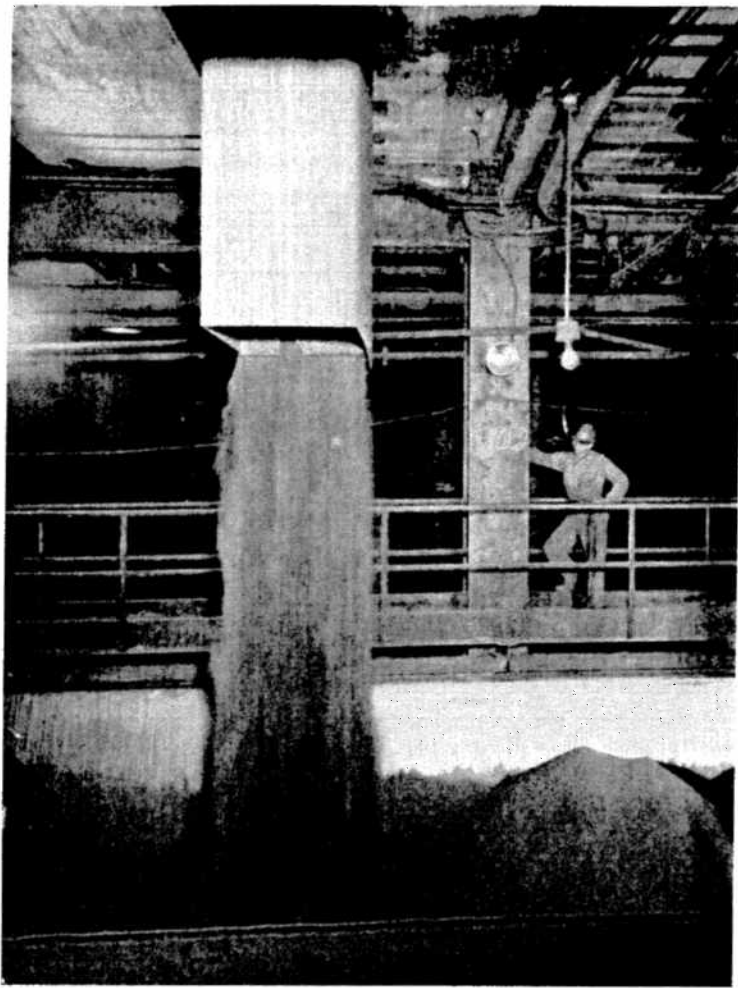
The best season yet, topping even last year's activities, was enjoyed by the ladies' bowling league at the Levack employees' club. Victors in the 24-team loop are shown above, Mrs. Vi Finn, Mrs. Betty Kauppinen, Mrs. Alice Lajambe, Mrs. Norma Kemp, Mrs. Eileen Mitchell, and Mrs. Jane Lefebvre (captain). Four of these gals were members of last year's winning team.

Champs of the Levack mixed bowling division are also pictured, Mrs. Sheila Cucksey, John Cucksey, Mrs. Theresa Atkinson and Lefty Stelmakowich; not shown are Mrs. Lorraine Farrow and Archie Cucksey. Mrs. Atkinson almost made it a grand slam by copping both



the high single (347) and the high average (204) as well.

# Copper and Nickel As They Leave Separation Department



The copper sulphide goes from the thickeners to centrifugal filters for drying, and thence to storage bins. From these it is loaded in railway cars, as shown above with Charlie Anstry at the controls, and is hauled away to the electric furnaces, en route to final purification at the copper



This tasty-looking brew is nickel sulphide, marking time in a storage tank before being pumped to the sinter plant for the final treatment in nickel production operations at Copper Cliff. The sinter is shipped directly to market or to the Company's plants at Port Colborne, Huntington or Clydach.

## Tiny Crystals

(Continued from Page 9)

picks up the oily copper sulphide crystals and carries them to the top where they are either floated off or swept off by paddles with the froth.

It's the same treatment as that given ore from the mines after it has been crushed at the mill, except that different reagents are used and of course there is no bulky waste product to be pumped to the tailings disposal area.

After four stages of flotation, using two types of machines, the pulp has been cleanly divided into copper and nickel sulphides, thus quietly completing release of the complicated grip in which these two have been locked since the beginnings of time.

Both sulphides are allowed a respite in the comparative peace and tranquillity of huge thickeners where they are partially dewatered.

Then the copper sulphide is dried in centrifugal filters and taken to the former Orford process building where it is melted in electric furnaces and then blown to blister copper for transport in hot metal cars to the copper refinery.

The nickel sulphide goes from thickeners to storage tanks,

from which it is pumped to the sinter plant for further treatment, except for a minor portion filtered and shipped to the nickel refinery at Port Colborne for special uses.

Blending of the material for use in the production of such nickel products as monel metal and black and green nickel oxide is done in the storage tanks. Here as throughout the separation department operations, close continuous control is maintained on the products through quick assays, of which as many as 50 are made during a shift in addition to the regular assay service of the works laboratory.

Developed through Inco's research program to obtain the maximum utilization of its ores, the new process replaces the time-honored Orford method in use since 1890. It has brought more efficient means for separating copper and nickel sulphides and recovering precious metals contained in the matte produced at Copper Cliff.

### AND THE FIGHT WAS ON!

The proud father was talking about the intelligence of his son.

"You know, dear," he told his wife, "I think he must have got his brains from me."

"He certainly must," retorted his wife. "I've still got mine."



## Showing Civic Pride

With Alex Coulas of Stobie lending a neighbourly hand Sam Pataran of Garson installs a silver maple in the front lawn of his handsome home on Rita street in New Sudbury. This was part of a program by the ratepayers' association of that civic-minded section in which 151 trees were planted on the street lot lines. The interested little spectators in the background were Frances Coulas and Denise Lubert, both 5 years old.



## Delightful Surprise

A delayed dividend on the interest he took in his job caught up with Isadore Pilon of Coniston the other day. Now an Inco pensioner, he received a \$102 cheque from the Company as an award for a suggestion he submitted prior to his retirement. Sharing his delight at the windfall are his wife, their daughter Elsie, and her husband Albert Legault.

### JUST IN TIME!

Sign on butcher shop in London: "We make sausage for Queen Elizabeth II."

Sign on rival shop across the street: "God Save the Queen!"



A study of his charming wife Miep is Con van Suchtelen's latest portrait project. They came from Indonesia, joined Inco at Port Colborne three years ago.

## More Men Should Take Up Painting As Hobby, van Suchtelen Suggests

"It was nice to read the article about painting in the Triangle," wrote Con van Suchtelen in a letter to the editor, "but there is something that seems strange to me. The article states: 'Painting as a hobby is steadily increasing in popularity among the wives of Inco workers'."

"Why only 'the wives'?"

"Painting is a highly enjoyable and rewarding activity that can be practised by members of either sex."

President of the Port Colborne Art Club, Con van Suchtelen took up painting as a hobby a year and a half ago, and has found it a refreshing spare-time diversion from his work in the research department at Inco's nickel refinery. Although he has received no instruction other than group lessons in the club, he has already turned out several very creditable canvases, but while he is naturally interested in improving his skill, what is of first importance to him is the enjoyment he gets from this pleasant pastime.

Continuing his letter: "If one were asked to name a number of famous painters, how many women would be among them? I mention this not to discourage the wives, but rather to encourage their husbands."

"We know that among us there are quite a few men who like to draw and paint, but not many of them make a serious thing of it and join a group. Still, if the desire to paint is more than a whim, it is hard to think of a better way to improve than becoming a member of an art group. That is where we can have the benefit of lessons from an experienced artist, which can make the difference between the superficial 'liking' and the rewarding 'understanding' — rewarding because it is through understanding that one learns to see art over again."

"Even in the event that the aspiring painter turns out not to possess those qualities that could

make him an artist, it is still possible he would have the satisfaction that comes from 'seeing' with the artist's eye what is enjoyable in another artist's work, in nature, in everyday surroundings. He learns to see colors, contrasts, or effects of light and dark, that he never had an inkling existed. That, by the way, is the ironical fate of many of us — we do not bother to understand because we do not sense what we are missing. Many live in the midst of beauty and die scarcely knowing it was there."

Discussing art groups, Con hopes nobody gets the idea they are necessarily seasoned painters who would make a beginner feel uncomfortable or out of place. Far from it, he says — they are eager to welcome new members and share their experience and enthusiasm in a delightful hobby.

As at Port Colborne, Sudbury groups are anxious to enrol new members. Any Inco workers interested could contact Bruno Cavallo, of the Sudbury Arts and Crafts organization, or Alex Selly of the Community Art Group. There are also smaller art groups at Levack and Lively.

## Sandy McNevin Comes From Pioneer Family

Reflecting back over the more than 50 years since he first came to Copper Cliff, Sandy McNevin felt he hadn't too much to complain about. His chief regret was that he didn't remain with Inco when he first joined as office boy in 1908. The following year he apprenticed as a machinist but left shortly after qualifying for his trade and did not return until 1929.

In the intervening years he worked on the T & NO and the AER, and also spent five years at Cobalt. He worked at Murray and also for the Mond at Frood. He was rehired at the Copper Cliff machine shop in 1929 and remained there

until his retirement on service pension.

Coming from Arnprior in 1905, Sandy's father was the shoemaker in Copper Cliff for many years; the town's McNevin Street was named in his honor. Sandy recalls picking rock at the old No. 2 mine during his boyhood summer holidays.

In 1915 Sandy married Lillian Ryan who died in 1945. Their twin daughters are Madeline (Mrs. Harrower) of Sudbury and Margaret (Mrs. Doherty) of Hamilton; there are four grandchildren who give Sandy a world of pleasure.

Living with his daughter in Sudbury, Sandy occupies himself with reading, a little gardening, and just plain loafing, which he readily admits he thoroughly enjoys.

At a party held in his honor the boys in the shops presented him with a well stuffed wallet and their best wishes for a long and happy retirement.

## Was Steel Sharpener For Over 25 Years

Recently retired on disability pension, Tony Connors sharpened steel at Inco mines for well over 25 years. In that time he saw many changes and improvements, such as the tungsten carbide inserts that have so greatly increased steel efficiency.

Born in Quebec in 1897, Tony worked at Coniston for Mond and in the automotive industry at Detroit before settling down at Frood in 1931. He transferred to Creighton in 1932 and to the bit



The Connors spot a picture of Tony's old friend Bob Cook in the April Triangle.

shop at the open pit in 1943.

Tony married Pearl Sheehan in 1937 and they have one son, Richard. Their present plans include spending a good part of the summer at the Sheehan homestead near Huntsville. There Tony will take it easy and favour the heart condition which was responsible for his retirement. His many friends wish him a speedy return to good health.

### WORRIED

Hi: "I'm going to see the doctor about my wife. I don't like the way she looks."

Fi: "I'll go with you. I don't like the looks of mine, either."

## Eight Beauties from Shoo Fly Lake



As lovely a catch of speckled trout as a man could dream of was the good fortune of Jack Livingstone and Basil O'Brien of Copper Cliff, on their first trip of the season to fabled Shoo Fly Lake, 45 miles west of Sudbury on the C.N.R. The eight beauties weighed just under 24 pounds, with the biggest going 4. "They're getting harder to find, though," Basil reported. "Shoo Fly has been fished pretty heavily the past four or five years without restocking, and the drain is beginning to tell."



# Baseball Fans Are Enjoying Snappy Dish

With presentations, politicians, pretty majorettes and percussionists the Nickel Belt Baseball Association ushered in its 1957 season in real style.

Both the weatherman and the performers, Copper Cliff and Creighton, served up very enjoyable fare, Creighton having a shade the best of it, 5-4. The 2,500 fans expressed their appreciation with a \$360 contribution toward the Skead fire relief fund.

Biggest baseball news this season was the retirement of veteran Gerry Wallace and the appointment of three brand new coaches. Gerry has joined the umpiring staff and should make an excellent official. Of the new coaches Ray Puro took over from Spike Wormington at Frood, Moose McQuarrie stepped into Gerry Wallace's shoes at Copper Cliff and Bernie Kallies replaced Norm Hahn at Coniston. Earl Brandy is still calling the shots at Creighton and Danny Cuomo is back at the helm for Garson.

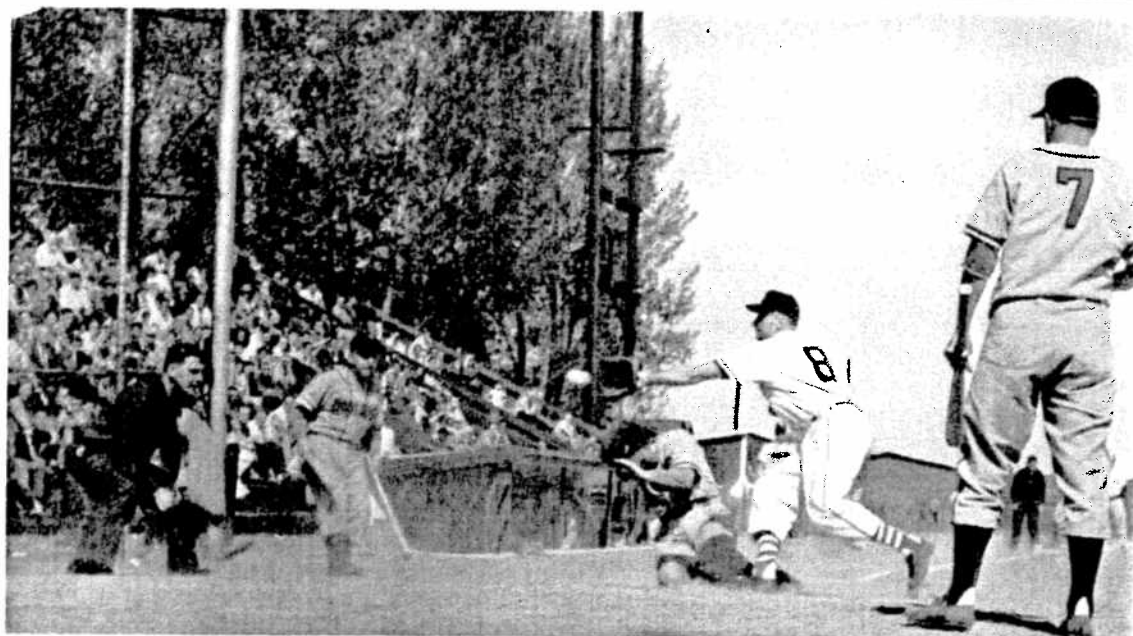
Quite a number of new faces, local and imported, are to be seen among the usual background of old regulars this year. Grapevine gleanings indicate that other newcomers may be expected right up to the July 2 deadline.

Despite a strong start by Coniston and Frood there are those who say Creighton and Copper Cliff are again the teams to beat in the stretch. Garson may yet be a threat but so far appear to be lacking that old punch without their star centrefielder, George Armstrong, who is expected on the scene in July.

Garson's ace righthander, lanky Al Duncan, appears in good form and newcomer Douglas Climenhaga from Fort Erie should help out Marty Burton and Rene Pelletier with the pitching chores. Other good news from Garson is that Harold "Rabbit" Hair will be back by mid-July. Many will remember Hair's two-homer barrage at last season's opener and his fine defensive work at short stop. Regulars back at the old stand include Foley, Byers, McNamara, Cole and Benoit with juveniles Butch Desjardins and Gaylor Cull also seeing action.

Copper Cliff Redmen are this year displaying a variety of talent with newcomers Gord Dymont, Dick Lanning and Glen McKenny all looking good. Lanning was once a major league prospect. Other additions include John Sleaver, a local boy who played hockey and ball in Galt last year, John Roberts, Ed. Dalton and also young Billy Baker, another local lad up this year from juveniles ranks.

Frood are going along with a handful each of oldtimers and juveniles, plus a pinch of imports and a prayer. They have two acquisitions from Michigan State, Norm Creamer and Harold Ofasky. Juveniles Eddie Marynuik, Steve



Hitting the dirt with the tying run in the season's opening game, Creighton's "Cap" Capaletti throws up an arm to protect his face from the ball, which is arriving just too late. Copper Cliff hurler Gord Dymont, who made a wild pitch to set up the run, is covering the plate while Jimmy Smith (back to camera), Joe Stelmack and umpire Berk Keaney intently watch the play.

Smith and Marty Puro, all local products, are getting a chance to prove their worth. Pitcher Nick Sostarich appears the mainstay of the mound staff at present with Tug Parri, Bert Gibbs, Red Hill and Gerry Villeneuve all rounding into shape. Johnny Barbeau is once again getting his share of base hits and will probably occupy Frood's clean-up spot for some time.

Coniston have much the same club as in 1956. Back after a year's absence, diminutive Mort Berry should be helpful both offensively and defensively. The Boyd brothers, Bert, Keith and Vic are together again, and Murray Veno and Clarence Fox continue as mighty smooth crowd pleasers. Newcomers Hugh Mulryan and Alex Nastasiuk may be just what coach Bernie Kallies needs for depth.

Offensively at least Creighton is rated most dangerous, and for good reason. Howe, Staples, Kasep-chuk, Girard, Hreljac et al are enough to give any opposing pitcher at least a mild case of showeritis. Southpaw Eli Barkin and Tommy Davies are back for the summer but otherwise Creighton might be termed a home-brew club.

Adding considerably to the thrill of the game was the decision to pull the home run fences in a notch or two, giving the hitters a better show and the pitchers more ulcers. Comparing favourably with most major league parks the fence now measures 315 feet at the foul lines and 350 feet at dead centre. In two recent games three home runs were hit in each. Two were poled on opening day, Paul Chauvin hammering out the first circuit blow of the season.

Umpire-in-chief is again Berk Keaney who, in addition to regulars Bennett, Prete, Paquette, Prescott, Walsh and Connor, now has Gerry Wallace and Jimmy Prior on his staff.

Rained-out games were an early season headache, and the coaches spent a few anxious nights wondering who they would pitch next

when postponed plus regular games ran them into four and even five dates a week.

Early indications are for some interesting and exciting ball again this season, which could be enhanced by a little more spectator support. An excellent place to spend a couple of hours on a fine evening is the ball park — and remember, men, it could help get you out of mowing the lawn!

## Aids Special Project

A grant of \$7,500 with an additional \$4,500 annually for the next three years has been made by Inco to aid a special research project now under way at the department of mining and metallurgy, University of Alberta.

The grant will provide funds for

research equipment and is separate from the increased scholarship program recently announced by Inco.

Company officials state, the grant recognizes the growing contribution being made by the university in the field of metallurgical research.

The project — a three-year study of titanium-base alloys — is under the direction of J. Gordon Parr, associate professor of metallurgy at the university. Study will include investigations into the mechanical properties of alloys, the weldability of certain alloys, and the possibilities of producing high-purity alloys in forms amenable to heat treatment.

Hint to married men: Since all you guys say that you wear the pants in your family, we suggest that you protect them by wearing an apron while doing the dishes.

## Give First Program in New Auditorium



First public entertainment given by the students in the handsome auditorium at the new Lively High School was a Variety Night that drew a large and appreciative audience. President of the Student Council, Marilyn Kovalchuk, introduced the various numbers which included gymnastic displays and a play. In the above picture, taken from the balcony, the school choir is performing under the leadership of Charles Tuttle. The auditorium, 56 by 90 feet, is equipped for basketball and volleyball and has four badminton courts.



## Scout and Guide Work a Family Affair with the Bill Stevensons

As a shining example of that long advocated therapy for family happiness the doing of things together — the Stevensons of Minnow Lake stand out like a beacon.

Bill, his wife Frances, and four of their six children are all active in Scout or Guide work. Suzanne, 6, and Nancy Ann, who is not yet 2, eagerly await the time when they can become Brownies and get into the family hobby too.

In Bill's experience, having a common family interest certainly makes for harmony and happiness in a home — and what, he asks, could fit in better than youth work.

Bill was raised in Sudbury and has been active in Scouting since boyhood. He became a cub leader in 1928 and now is district scoutmaster of east district. He is an Inco man and works at Murray mine.

Mrs. Stevenson's interest in Guide work dates back many years and has increased with time. Starting with a group of Brownies at Minnow Lake some 10 years ago she is now a Girl Guide divisional commander.

Young Bill is an assistant scoutmaster and intends to become a scoutmaster when he reaches the qualifying age of 21. He attended the all-Canadian Boy Scout jamboree in Ottawa in 1953. A Queen's Scout, he holds the Bushman's Thong and Gold Cord, two distinguished awards in Scouting.

Diane is a company leader in the Guides. She will attend world Girl Guide camp at Doe Lake near Huntsville in August. Her sister Carol Ann is another enthusiastic Guider.

Enjoying her first year in Brownies, 8-year-old Joanne is receiving all the help and encouragement in the world from her

mother and sisters.

Bill and his wife both think Scouting and Guiding offer wonderful opportunities for developing good Canadian citizens, physically, mentally and morally.

A new sleeping bag is being modelled in the above picture of the Stevenson family circle. "In the bag" are Joanne, 8, and a slightly puzzled Nancy Ann, 1. Around the circle are Bill Jr., 20, Diane, 15, Suzanne, 6, Mrs. Stevenson, Carol Ann, 13, and Bill himself.



## Early Birds for Swimming Classes

Les Parr, one of the instructors, interviews four young fellows who want to join the learn-to-swim classes at Garson Pond July 15-20. Sponsored jointly by the local Community Y committee and the Garson mine athletic association, the campaign is expected even to surpass last year's success. Other learn-to-swim programs arranged by Community Y committees, apart from the major campaign in Sudbury, will be held at Levack (Windy Lake) July 2-5 and 8-12, Copper Cliff (Clarabelle Lake) July 15-19 and 22-25, and Lively (Meatbird Lake) July 15-19 and 22-25 (mornings).

## QUICK QUIZ

1. What son of a Halifax dockyard carpenter established the first regularly scheduled steamship service between Europe and America?

2. In the year before World War II started, Canadian factories produced goods with a value of \$3.5 billion. What is the value of today's factory output?

3. He oversees Canada's biggest accounting job, and he's the only federal civil servant who does not work for the government. What's

his name?

4. Spain once laid claim to what part of Canada?

5. The tiny Canadian community called Alert can claim what distinction?

ANSWERS: 3. Watson Sellar, the auditor general, is responsible only to parliament, oversees federal spending. 1. Sam Cunard, founder of the great Cunard line. 4. The area that is now the British Columbia coast. 5. A weather station 500 miles south of the North Pole, Alert is Canada's most northerly settlement. 2. More than \$21 billion.

## Booming Tennis Revival Noted at Copper Cliff



Interest in tennis is zooming at Copper Cliff this season under the sponsorship of the Copper Cliff Athletic Association. The courts have been put in first-class playing condition and are getting capacity use by a membership that is nudging the 100 mark. The live-wire executive of the club is composed of: president, Walter Stevenson; vice-president, George Flynn; secretary-treasurer, Chic Conron; executive members, Tom Mossey, Bob Kostash, Mary Nelan, and Bob O'Riordan. Picture shows the courts during a typical evening's play.