INCO
Triangle

Printed On Recycled Paper

Vol. 50 No.1

January Ontario Division 1991

The bells were ringing over the festive season and it made for beautiful music. Pictures and story on Pages 8&9.

A New Year's Wish

Sudbury's United Way campaign organizers had their wish come true when Inco employees and pensioners again donated a record $227,052. Taking part int a recent ceremonial cheque presentation are, from left, United Way board chairman Harold Duff, Inco employees campaign coordinator Gerry Cullain, pensioner Bert Meredith, Creighton Mine staff canvasser Norm Lessard, and Copper Cliff Mill hourly rate representative Susan Benoit. See updated story, Page 2.

Inco boosts hydro power grid in $34 M energy conservation project

A $34 million project replacing an antiquated segment of Inco's electric power system will increase energy efficiency, improve reliability and provide a substantial reduction in operating costs.

According to Central Maintenance and Utilities Manager John LeMay, the five-year, two-phase project will replace the 25 Hertz portion of the company's hydro-electric power system with a modern, standardized 60 Hertz system.

Built between 1905 and 1930, the 25 Hertz system includes two generators at Big Eddy and one at High Falls on the Spanish River.

As well as the generation at Big Eddy and High Falls plants, Inco also receives power from Ontario Hydro's 25 Hertz system. The main sources of supply are a generator at Abitibi Canyon and a frequency converter in Sudbury.

"The systems are antiquated and very unreliable," he said. "Spare parts are hard to get and in many cases unavailable. In the past we've had to manufacture some of our own spare parts."

He said that Inco's conversion project is designed to coincide with Ontario Hydro's decision to phase out its own antiquated, uneconomical and inefficient 25 Hertz system in Northeastern Ontario by 1995.

"The Inco 25 Hertz system depends for its stability upon the interconnection with the Ontario Hydro system. Accordingly, our conversion must coincide with theirs."

Inco generates 20 per cent of its own power and the rest is purchased from Ontario Hydro. Although the old system accounts for a full third of all Inco's transmission and distribution equipment, it supplies only about six per cent of the load.

No delay

The first phase will begin this year and end in 1993. At a cost of $13 million, it consists of converting High Falls No. 2 plant and constructing two switching stations and 10 miles of transmission line.

The second phase, costing $21 million, will begin in 1992 and be completed in 1995. It will consist of converting two generators at Big Eddy, construction of three transmission lines and the conversion of remaining 25 Hertz loads at Stobie, the Copper Cliff Smelter and the Copper Refinery.

Inco has an extensive 60 Hertz system in the Sudbury District and generates its own power as well as buying power from Ontario Hydro.

There are 150 miles of 60 Hertz transmission lines and 70 miles of 25 Hertz lines.

Superintendent of Power Ray Cousineau said tender packages for the engineering segment of the project were opened earlier this month and the selection process should be completed by the end of January.

"Most of the work on the project will be carried out by outside contractors," he said. "We expect some of the work on the first phase will start this fall."

General Foreman of Power Systems Planning Stan Zajc has been named the project's coordinator.

Annual savings in purchased power costs after the project is completed are estimated to be in excess of $13 million.

Waste paper next target of Inco environmentalist

It's been only a few months since Inco replaced styrofoam cups with biologically degradeable paper cups, and already there's a move afoot to try the same thing with waste paper.

"I suspect that there's a lot that can be done to reduce the amount of waste paper we produce here," said Waste Management Consultant Lori Whyte-Landry.

Lori, an employee of Energy Pathways Inc., was hired by Inco under a 20-week contract to work with Environmental Control. She lauds Inco and its employees for their environmental awareness.

"We expect between 60 and 75 per cent participation with these studies and programs," said Lori. "From what I can see so far at Inco, we're getting the enthusiastic cooperation of well over 95 per cent of people we've talked to so far."

To get a "fix" on how much waste paper each employee produces, Lori is conducting a waste paper survey the last two weeks in January.

"The idea is to first reduce the amount of waste paper with things like recycling. After that, we can figure out what to do with the stuff we can't reduce."

In the survey, sites to be monitored are identified with tags on the garbage bins. From January 21 to 25, waste is to be disposed of in the usual manner. From January 28 to February 1, the monitored sites will have two garbage bins, each one tagged. One bin will be for recyclable/compostable materials, the other for all other wastes.

"This would fit in well with the Region of Sudbury's Blue Box program," said Lori. "It's Inco's own version."

The problem of rapidly-filling landfill sites faces Inco as it does the rest of the community, she said. "If we all continue the way we are, we could be looking at no place to put our garbage in the future."

Icicle Crew

Winter has its hazards and Transportation's "Icicle Crew" was on the road at the Smelter removing the huge icicles that formed on roofs and other overhead structures. Armed for the job is Ron Brouillette while fellow crewman Harry Will skillfully guided the "cherry picker" within striking distance from the truck.

Inco & employees boost $1M record

A $120,000 corporate donation from Inco Limited has pushed the Sudbury United Way Campaign over the $1 million mark for the first time in its seven-year history.

By matching last year's contribution, the company has equalled the largest corporate donation ever by the Ontario Division to the United Way.

Coupled with the record-breaking canvass of hourly and staff employees, the corporate donation brings the total company contribution for 1990 to just under $350,000.

That total represents 34 per cent of the overall campaign goal of $1,028,000.

"Each campaign needs a leader and I don't think there is any doubt that in Sudbury that leader is Inco and its many employees," said Gary Gray, 1990 campaign chairman.

"These figures reflect not only the generous spirit of the people that work at Inco, but also the generous nature of the company itself."

The announcement of Inco's corporate donation was made during an appreciation luncheon at the Copper Cliff Club for canvassers who participated in the employees' campaign.

In accepting the donation, Gray happily announced a new campaign total of $1,000,031 virtually assuring the United Way of reaching its 1990 goal.

Gerry Cullain, chairman of the Inco employees' campaign, updated the 1990 in-house totals and thanked everyone involved for their "supreme effort" in helping the canvass grow and prosper.

Employee donations reached an all-time high again this year at $217,281, surpassing last year's mark of $211,215. Inco pensioners also had a banner year contributing $11,755, up from the 1989 total of $10,500.

In 1983, when the United Way campaign was first launched 10,600 workers pledged $164,700.

"For the seventh year in a row our valued employees have performed a remarkable feat," said Ontario Division President Bill Clement. "For the seventh United Way Campaign, they have produced record donations to assist the men, women and families being helped by 20 charitable groups throughout the Sudbury area.

"That our employees have accomplished this at a time when our country and our economy are reeling under the impact of a recession is truly commendable.

"We at Inco are only too happy to be in the position to enhance that community response by making our additional corporate donation."

A Port Colborne Christmas

More than 100 children and parents gathered together for the annual visit with Santa Claus at Port Colborne Refinery's annual Children's Christmas Party.

Santa had some competition at the Port Colborne event with the appearance of Freddy the Clown, but insiders report Santa won the popularity contest hands down.

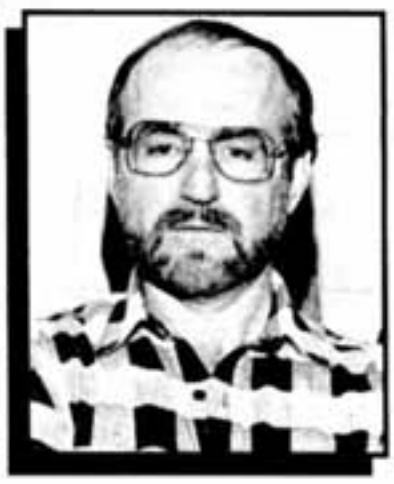
Above, Santa and Freddie team up for the scores of enthusiastic youngsters, while, at right, Aaron Robins, son of Howard Robins of the Foundry Additive Plant, has put in his order and wants to make his escape.

Do you practice energy conservation at home?

Harry Vallbacka, party leader, Central Utilities: "We're all involved in that since fuel went up. I got that stuff in the windows that goes on with a hairdryer. I keep my drapes open on the sunny side of the house. It all makes a difference in bringing down the bill."

Allan Uildersma, Hydraulics Technician, Utilities: "I put in a steel insulated door and it made quite a difference. I put plastic on windows facing the north side in the basement. I open the drapes on a sunny day. Not that big a difference in heating, but it all helps."

Ron Pharand, operator 2, Tankhouse, Copper Refinery: "My house is new. I set my thermostat in the comfort zone and I never touch it again. I had the house built with energy savings in mind. It's well insulated."



Gerry Funk, Maintenance coordinator, North Mine: "I put in good windows and switched to high efficiency natural gas. It's reduced my heatings bills substantially. It really paid off. The last fuel bill was about $50 for a month."

Denis Dallaire, survey party leader, North Mine: "I switched to a high efficiency natural gas furnace from an ordinary gas furnace. I insulated downstairs. The savings were unreal. I'll bet I cut costs by 40 per cent."

Denis Parent, trackman, Transportation: "I live in Sturgeon Falls so I have to do it. I had a new air tight wood stove installed and I heat the house with it. The electric heat never kicks in."

Larry Chubay, instrument man, Utilities: "I haven't been too concerned so far. I have new siding on the house and new windows and I have natural gas heating. It all makes a difference."

Maurice Rainville, Laborer, Tankhouse, Copper Refinery: "I put an addition on my house and I remodelled the old house. I've doubled my floor space but kept the heating bills the same."

Ron Bedard, maintenance foreman, Smelter: "To some extent. I turn off lights, cut down on hot water. Low heating bills are a feature people look for when buying a house today."

Al Giles, maintenace foreman, Smelter: "I've put plastic on a couple of windows and the patio doors. The house is fairly new and I have gas heat so I don't spend as much on heat as some others."

One of only two in country to win accreditation

Inco labs earn top marks in accreditation procedure

The Inco people who ensure the company's products are sold as advertised are walking a little taller these days.

The analytical chemists and support staff in Inco's five Ontario Division laboratories have pitted their performance against laboratories from around the world, consequently earning a berth among the best on the continent.

"Our labs became only the second in Canada to receive the accreditation of the American Association for Laboratory Accreditation," said John Bozic, who heads up the laboratories. "It not only makes us confident of what we can do by measuring our procedures and facilities against laboratories from around the world, but it helps us to build trust with our customers."

John said attempting the accreditation was one of his department's ways of contributing to the company's ambitious Total Quality Improvement initiatives.

Inco operates five laboratories that control the processes involved in mining, milling, smelting and refining Inco products. "At every stage of the process, this kind of analytical work has to be done to ensure that the final product meets the specification promised to our customers."

Included in the accreditation were laboratories at the Port Colborne Refinery, the Copper and Nickel refineries, the Smelter/Matte Processing laboratory and the Central Process Technology laboratory.

Boasting state-of-the-art computer and computerized robotic equipment, Inco's laboratories have been leaders in their field for some time. "We were darned good in the first place when it came down to the physical set up, procedures and qualified people," said Central ProcessTechnology quality control coordinator Alvin Glaab. "This was a way to verify it.

"Our people are highly qualified, many of them chartered chemists and members of the Association of the Chemical Profession of Ontario."

In fact, the accreditation process meant little or no changes to existing laboratory facilities, equipment and staff. Most of the more than 1,000 hours of accreditation preparation work involved outlining the many analytical procedures used in analyzing Inco's 40 final products.

The result was a 240-page manual that covers everything from analytical procedures to laboratory housekeeping. Taking over a year to prepare, the manual involved assembling a comprehensive, detailed quality control standard for virtually all analytical laboratory procedures.

"The accreditation process involved the documentation of our procedures, rather than physical changes in the labs or the equipment," said Copper Refinery Analytical Supervisor Jim Balleny.

Not that other aspects of laboratory operations were ignored. The accreditation procedure involved an on-site audit that included everything from safety, manuals, procedures, training and instrumentation to documentation.

Gideon Smith, Jim Balleny, Ettore Lostracco, John Bozic, John Breau and Alvin Glaab review the extensive manual for Inco's laboratories that took more than a year to prepare.

The accreditation also involved passing a proficiency testing program. Samples were sent to Inco laboratories where they had to be correctly analyzed. The data was then returned to the American Association for Laboratory Accreditation where it was examined for accuracy.

"Accreditation is an on-going thing," said Nickel Refinery analytical supervisor Gideon Smith. "There's a continuing proficiency testing program to ensure that accredited laboratories remain at high standards. The program involves quarterly proficiency testing and Inco labs have to pass the stringent tests to keep their accreditation status.

"It goes on forever," said Port Colborne's analytical supervisor Ettore Lostracco.

One reason for the accreditation procedures is the high-tech nature of today's laboratory work. The traditional Bunsen burner, beaker and test tube can still be found in Inco labs, but today's chemist is more likely to find himself at the keyboard of a computer or checking a river of data flowing from computer-driven robotic testing equipment.

"Tests that used to take days to complete can now be done in a matter of seconds," said Smelter/Matte Processing analytical supervisor John Breau. "That means much more work can be done today and at minute levels of detail impossible only a few years ago."

The consequences of just a small oversight in analyzing the mountains of data can be disastrous, said John, and that's why today's analytical chemists have to be highly trained professionals.

41 years with perfect safety record

If caution is first, the horseshoe will follow

George Tincombe has been in some rather risky situations in his 41 years as an electrician.

George has mixed feelings about going into the New Year as an Inco pensioner, but he's not sorry about retiring in one piece.

"In industrial construction work, you can find yourself in all kinds of situations, outside or inside, above or below ground," he said. "You've got to be careful. It's a job that has its risks."

It was George's cautious nature that earned him a plaque on retirement from Inco Construction, an award recognizing more than four decades of work without a lost time accident.

George took the award without boasting. "I guess I've always tried to look ahead, to be careful, but I'm not saying there isn't any luck involved. No matter how careful you are, things can always happen. I guess you can always use a horseshoe in your pocket."

Wife Doreen Tincombe, on hand for the presentation and the dinner that followed, disagrees. "He's always been a careful man. I don't think there was much luck involved. If you're careful, you'll have the luck."

George sees safety as both an individual and a team effort. "If you don't pay attention, you are the one who's going to be on the short end of the stick," he said. "On the job you have to watch out for your fellow co-workers. If you look out for him, he'll look out for you. That makes a good team."

Looking back on his working life, he admits to sometimes wondering how he made it. "When you think about some of the things that could have happened, you wonder why they didn't."

He's worked in hydro substations, where being careful every minute can be the difference between life and death. "There's switches, bare wires with high voltage," he said. "You've got to know where you can touch and where you can't."

George started as an electrical apprentice at the High Falls power plant and has moved throughout Inco's Sudbury operations since. He's been with Inco Construction since 1972.

He moved to a Construction office job 15 years ago after his heart started giving him problems and had hoped to continue for another few years before retiring. Then doctors ordered him to retire after an examination late last year.

"It was kind of sudden. . . a surprise retirement," said George. "Doctor's orders. I've felt pretty good up until the last couple of years. I figured I was too young to retire, but I'll listen to the doctor."

Construction foreman Joe Giroux presents plaque to George Tincombe and wife Doreen.

Inco plant protection officer wins citation

A clear sense of what's right prevents rape

With school over for another year, evening activity had increased. So had the variety of city sounds that filled the night and drifted through open windows. It would have been easy, maybe even understandable, just to blame the screams on early summer exuberance — and let sleep shut them out. Instead, one Sudbury family grew more alert.

"It was after midnight," recalls Cathie Haskett. "We were nearly ready to retire, but when we heard the screams again we knew we had to check them out."

It wasn't unusual for Tiina Paavola to be staying over with the Hasketts that night. She and 16-year-old Wendy are best friends, with a lot in common — including piano music and a playful tendency to tease Mrs. Haskett about the beautiful old upright that needs a few new ivories.

Inco plant protection officer Stan Haskett re-dressed quickly. Heading downstairs, he was joined by Cathie and the two girls.

Outside, a dog barked. "Stan went looking in one direction," Cathie explained, "and the girls went the other."

"Tiina and I located the source of the screams," Wendy said. "A girl was crying for help down by the bridge and we yelled 'over here! Over here!' to my dad."

That's when a young woman ran out into the open, her attacker apparently scared off by the rising commotion. Cathie went to her. "She was frantic, dirty and bleeding about the head. Tiina and Wendy and I assured her she was safe and helped her into the house."

Tiina Paavola, Cathie, Wendy and Stan Haskett with Police Commission award.

Wendy gives full marks to the 911 response: "We were still on the phone talking to the police, letting them reassure the victim, when officers came to door. It couldn't have taken more than five minutes."

Meanwhile, the attacker had fled. Stan caught up to him within two blocks. A former officer with the Copper Cliff Police Force, Stan knew the limitations on how much force he could use. "I restrained the man briefly and was able to get his jacket off in the struggle. He got away then, but the jacket contained enough evidence to later allow the police to locate and arrest him.

"By the time I got back from the chase," Stan added, "the ambulance and police were already at the house."

Time to reflect

Only when the victim was safely on her way to the hospital and all the vehicles, officers and attendants had left, could the Hasketts and their guest begin to reflect on what they had just been through. They slept little that night.

"While everything was happening," Tiina remembers, "we were only concerned for the girl's safety. Later, we were afraid. Even now, sometimes, when it gets around that time of night, I still feel the fear.

Wendy glances at her friend and nods: "You see it on TV, but rape is no joke. People shouldn't take their lack of personal experience with rape for granted. That girl was being threatened and might have died. If we hadn't gone out there it would have been too late."

Her mother agrees. "The plus for us was to save the victim from the ultimate crime. We just did what we had to do."

They made a difference

On September 20, the Hasketts were recognized at the 4th Annual Awards Night of the Sudbury Regional Police Commission. Their award reads: "In recognition of outstanding services and assistance to the Sudbury Regional Police Force and the Community."

More important to the Hasketts and to Tiina Paavola, however, is the knowledge that doing the right thing made a difference. They want to encourage others to tune in to what's going on around them.

Cathie Haskett is no scaremonger, but she has a warning: "These things really can happen — even near your own home. Pay attention. If something doesn't sound right or look right, check it out. Make sure. Is it really okay?"

Stan Haskett modestly sums up their cooperative rescue: "We only did what we hope anyone would want to do."

Chuck Greenough, Inco's chief security coordinator, isn't surprised by what the Hasketts did. "Stan was always that kind of man," Chuck recalls, "even back in the Copper Cliff Police days. He has a clear sense of what's right, and doesn't hesitate to pursue it."

It seems to run in the family.

Inco initiatives promise energy efficiency

Efforts underway at Inco to reduce energy consumption could help make Sudbury the "energy-efficiency capital of Ontario," says an Ontario Hydro executive.

Dane MacCarthy, Vice-President of Energy Management, made the comment during a press conference introducing energy efficiency starter kits being distributed to more than 8,000 Inco employees in Sudbury and Port Colborne.

The kits, containing items to make the home more energy efficient, are being handed out to employees at special Energy Awareness sessions during regular safety meetings.

Supplied by Ontario Hydro, each kit contains about 15 sealers for electrical switches and outlets, a faucet flow restrictor to reduce hot water use and enough shrink-wrap window film to insulate one window.

The joint venture between Inco and the energy corporation is being hailed as a first for a Canadian company.

"To make the program effective, the efficient use of energy must be part of how that company does business and Inco is an industry leader in Canada," said MacCarthy.

"Ontario Hydro is trying to get a number of programs out to homeowners to change their attitudes towards energy. We not only want to increase awareness of energy efficiency, we actually want to save energy.

"This doesn't have to be accomplished through warm beer and cold showers. Energy consumption can be reduced quite significantly without affecting a person's lifestyle.

"A $6 kit may not seem like much, but if Inco employees were to use the items in these kits it would result in savings of 200 kilowatts. That's roughly enough to cover the peak demand for a town the size of Nickel Centre.

"Since it costs us anywhere from $1,000 to $4,000 a kilowatt to build new generating plants, these kits represent a savings of $200,000 to $800,000. It costs us less to reduce the need for electricity than it would to build new plants to meet that need."

For Inco, encouraging its employees to "take energy efficiency home" is a natural extension of how the company conducts its business.

"Saving on energy costs makes us more competitive and that's something every business has to do today to remain profitable," said Bill Clement, Ontario Division President.

"With rising energy prices a certainty in this province, we hope the energy-saving tips and devices contained in the energy efficiency starter kits will stimulate a more judicious use of energy resources in the homes of our employees and in our workplace.

"For our part, we are examining every aspect of our operations – from studying load shifting to off peak hours to employing high-efficiency motors and lighting – to ensure that we utilize all of our energy resources in the most efficient and economical means possible."

Clement said there are 27 major energy management projects underway at Inco's Sudbury operations. They include converting the Division's 25-cycle power system to 60-cycle, a move which will save 27 million kilowatt hours a year, Ontario Hydro audits of underground lighting, and the installation of new compressors and regenerators in places such as the Oxygen Plant.

"Over the past decade we've managed to reduce our energy use by 30 per cent and we have launched a score of these new initiatives to become even more efficient," he said. "At Inco, we are determined to make energy management succeed."

To assess the impact of the energy efficiency starter kits, Ontario Hydro hopes to conduct a telephone poll of a random sampling of Inco employees later this year. The poll will seek to find out whether employees actually used the items contained in the kits and whether similar co-operative ventures might be beneficial in the future.

Andy Lemay of Utilities with Hydro conservation material.

Inco support of art facility a boost to budding artists

Another Picaso or Renoir...from Sudbury?

Perhaps not in the near future, but judging from the enthusiasm of the budding young artists putting brushes to canvas at the newly-established Inco Art Annex, who knows what the future will bring?

"With the assistance of Inco, we are finally able to serve the community in this way and respond to the needs of both the general and artistic public," said Laurentian University Museum and Arts Centre director Pamela Kreuger.

Offering space for children's art classes as well as facilities for amateur and working artists at new premises at 94 Lorne Street, the centre marks another new direction for Inco's ongoing and varied community support.

The company committed $7,000 toward the project this year, support that may be renewed in future years.

"We are tremendously excited about the idea of an Art Annex in the city," said Jerry Rogers, Inco's manager of Public Affairs. "It gives the centre an additional voice by providing more creative space for the pool of young and established artists here.

"And it allows us at Inco yet another opportunity to assist and promote cultural and artistic endeavours in Northern Ontario."

Pamela Kreuger

Inco provided a boost for the Annex when the company featured the facility in a two-page Inco advertisement in the December issue of Saturday Night magazine

The annex opened for business last year with a series of summer art classes for children.

Programming includes Saturday art classes for children, Basic Drawing classes and workshops for local artists such as the drawing workshop held by Toronto artist Stephen Andrews last fall.

Laurentian University Museum and Arts Centre invited the Drawing Circle and the Sudbury and Region Art Club to share the facility, charging the same rent the two groups had been paying at their former studio on Durham Street.

The two groups have helped the project as well by supplying furnishings for the new location.

Inco has enthusiastically supported other cultural activities and facilities in the past, including ballet, theatre, symphony and opera.

Bill Zaroski and Ed Walsh of Creative Signs do the work.

Counts giving, not getting

A rewarding Christmas for Salvation Army veteran

Jan Fyn had barely finished setting up his Christmas kettle near the mall entrance when two young boys ran over waving $2 bills.

Stuffing the money into the empty kettle, they smiled at each other with the look of inner happiness that only comes from helping someone else. Smiling back, Jan sent them on their way with a gentle thank you.

In no time, he was handing out thank yous left and right as the Salvation Army Christmas kettle, looking more like a clear, plastic bubble, began to fill with the generous donations of Sudbury shoppers.

"People were really giving," said Jan. "The economy may be in recession but people still gave."

A miner by trade and a 21-year Inco veteran, Jan worked underground at the Frood-Stobie Complex until a severe ankle injury forced him to surface in 1981. Still trying to regain the strength in his ankle, he now works at the Nickel Refinery Complex.

"I belonged to the Salvation Army as far back as 1953," said Jan. "I left for a few years but returned to the Army in 1984."

This Christmas season, Jan joined other Salvation Army volunteers who stood by the kettles and rang the bells that spurred Sudburians to support the less fortunate.

"At the Supermall, where I was located, people really seemed to be in the Christmas spirit," he said. "A lot of people are hurting financially and maybe couldn't afford to give but they wanted to show their appreciation for the work being done by the Salvation Army."

The public appreciation Jan refered to was underscored during an incident involving the malls late last year.

For as far back as many can remember, the Salvation Army kettle campaign has been synonymous with the Christmas season. This past year, management at Sudbury malls decided to ban the traditional bell ringing at the kettles, saying the noise was annoying to shoppers and store employees alike.

The public was outraged and even threatened to boycott the malls. For many, the familiar ringing of the bells was an integral part of the sights and sounds that make the Christmas season what it is. Stung by the public backlash, the malls relented on their decision and the bells were ringing once again.

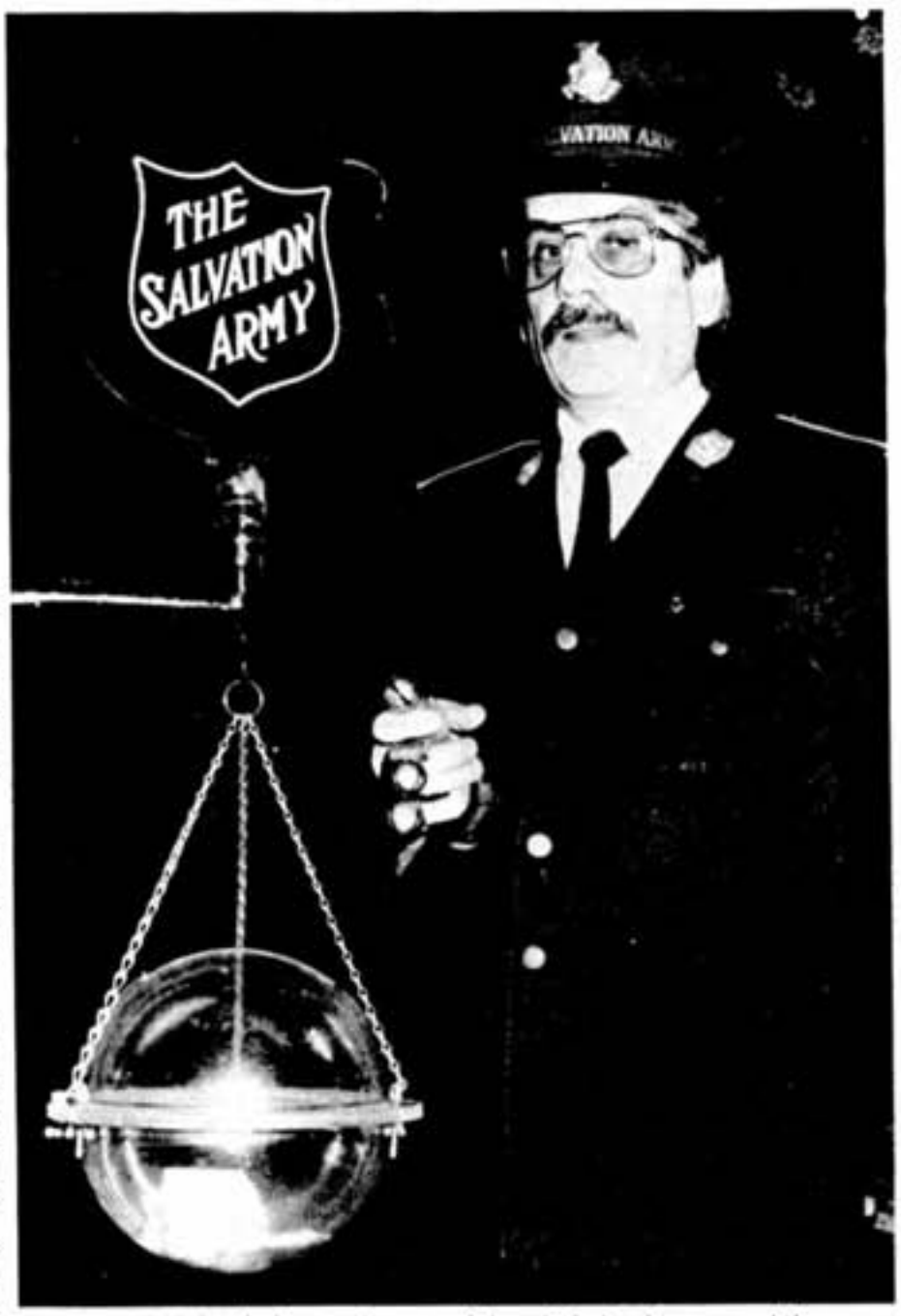
"The public supports us, that's one thing we know for sure," said Jan. "They know the money donated stays right here in Sudbury to help the needy. Those funds look after our welfare system for the coming year."

In 1989, the kettle campaign in Sudbury raised $47,600. Last year, the Salvation Army hoped to improve on that figure with a goal of $50,000.

Some of the money raised during the kettle campaign went towards 600 food baskets for needy families at Christmas. Each basket included a Christmas dinner and a two-week supply of groceries. The remainder of the money is used to provide food, clothing and shelter throughout the winter.

In 1989, not counting Christmas, the Salvation Army provided 1,291 meals to needy individuals in Sudbury. Unfortunately, Jan sees no end to the need for services that the Salvation Army provides.

"There's always a great need for more money," he said. "There are a lot of people hurting in Sudbury and a lot of people who aren't hurting don't always realize that."



Jan Fyn : If giving is better than receiving, he's having a good time.

Jan's compassion for the plight of the needy is the motivating force behind his willingness to spend his evenings standing in the mall spreading the Christmas message through the music of the bells. It's volunteers like Jan, spending anywhere from two hours to an entire day, who are the backbone of every successful kettle campaign.

In addition to his duties in the mall, Jan belongs to the Salvation Army's League of Mercy, delivering Christmas bags to the sick, elderly and shut-ins. The bags, containing staples such as kleenex, combs and writing pads, are packed by volunteers at the Salvation Army Church on Lorne Street.

"The need for volunteers and the the needs of the less fortunate in our community are not going to go away," said Jan.

"Next Christmas, I'd like to see more people from Inco out manning the kettles. Even an hour or just a couple of hours a day goes a long way."

In addition to the Supermall, Salvation Army Christmas kettles are located at the New Sudbury Centre, City Centre, Southridge Mall and malls in Lively and Hanmer.

When you hear the ringing of the bells, Jan asks you to support the Salvation Army cause by donating your time or money. "What you're doing is giving of yourself to the people of Sudbury," he said. "People who are less fortunate than we are."

Welder's 25-cent lunchpail holds millions in memories

Workers at the Inco welding shop had more than one jolly old soul visiting them this Christmas.

Leo McGillis, who turns 84 in February, dropped around to share their annual Christmas dinner.

"A lot of guys I used to work with are gone," said Leo, who retired from the welding shop in 1969 with 32 years service. "But a lot of the same guys who were only 23 or 24 years old when I left are still working because they're not old enough to get a pension."

On New Year's Day, Leo had been on pension for 22 years. He was hired as a laborer in 1936 and spent most of the ensuing years as a welder in the welding shop. He visits the shop all year-round and Christmas dinner is one occasion he hates to miss.

"It was the best place I ever worked," said Leo. "The guys there now, even the guys who started after I left, think it's really something when I go back there.

"I miss them. Why forget about the guys you worked with for 20 years, 10 years or even five years. There were a lot of nice men who worked in that welding shop.

"It's hard for my wife to understand sometimes, but I walk around those buildings now and I get a sinking feeling. I miss those guys. There's not as many people there now but in my day the blacksmith shop was always full of people and it was the noisiest damn place you ever worked. I still remember the machines running, the fellas talking and the noise of metal on metal. I loved it."

Leo still owns, and uses, the same lunchpail he carried to work for 32 years at Inco. It's 50 years old now and the original locking mechanism has been replaced by a homemade clip, but his wife Juliette packs it up about every two months so Leo can visit the welding shop and have lunch with the boys.

"I paid 25 cents for that lunchpail," he said proudly. "When I first started at Inco I took my lunch in a paper bag for a couple of days. A young fella who couldn't take the work decided to quit. He sold me his lunchpail before he left and I've had it ever since.

"It wasn't that I couldn't afford to buy a new one, it was just that I'd had this one so long I didn't want to replace it. Every time a hole rusted through it I'd throw her on the table and weld her."

Leo's memories of his time at Inco are as much a history of Sudbury as anything. He remembers harsh working conditions and even harsher winters.

"Our winters today aren't like they used to be," he said. "I remember snow piled up to the tops of people's sheds . . . and bitter cold. It was common in those days to go to work at 30 or 40 degrees below zero. People thought it was hot at work because of the furnaces but you could stand 10 feet away from the furnace and freeze to death."

When he was younger, Leo used to supplement his income by building bush roads after work and on days off with bulldozers he owned. Juliette would pick him up at the plant at 4 p.m. and he'd work until dark forced him to quit.

Today, Leo's life is much slower. He sold the bulldozers years ago but still does the odd bit of welding for family and friends on the 35-year-old Lincoln Welding Machine his brother built and later sold to Leo.

"There's always repairs needed in the family," said Leo. "And that old welding machine still purrs like a kitten."

Bernie Piche, welding shop supervisor, remembers Leo being on the job when he was just beginning his career at Inco.

"He was the guy I would seek for advice every once in a while," said Bernie. "He's always welcome here.

"Leo's visits mean a lot to the guys. It shows them that the trade is healthy. The guys can see that welding is not hazardous to your health even though Leo did weld in times when extraction was not the best. I think it says something for the old guy himself.

"The guys in the shop are all very pleased to see Leo come in, even though a lot of the new guys don't know who he is. They get a real charge out of him coming in, talking to them and having lunch."

On December 21 at noon, Leo found his way to the welding shop once again for an early Christmas visit with the men he misses so much.

Pensioner Leo McGillis, wife Juliette and his half-century-old lunchpail.

Claude inserts extra $4,400 into Christmas

Claude Degagne: His ideas are a second career of sorts.

The year has been a slow one for Smelter mason Claude Degagne. He makes the point with only a hint of a smile as he leans, with hands in his pockets, against a pile of cement bags.

"Only $13,000 in Suggestion Plan awards this year," he said.

In the last 15 years of his 27 years with Inco, all at the Smelter, Claude calculates he's earned mkore than $30,000 for his cost-saving ideas.

His most recent idea to pour his own roaster blade inserts gave him an extra $4,400 at Christmas.

"A good thing to have at this time of year," he said. "It helps pay off the annual Christmas bills."

Although most of Claude's past ideas were out of necessity, his last one was absolutely vital. In fact, without his solution the roasters may have had to shut down.

The problem to be solved involved inserts used to protect the roaster blades during the feed mixing. (The roaster dries and heats the feed before it reaches the furnace.)

The inserts wear out regularly in the mixing process and fall out of the blades. They have to be replaced every two or three weeks.

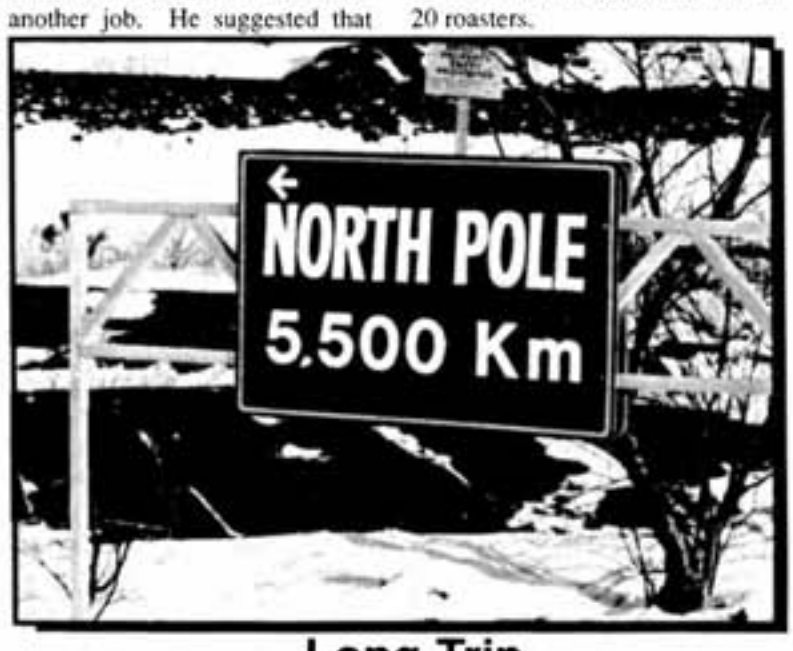
The inserts are replaced either by stockpiled spares or through new orders from Montreal.

"The inserts are manufactured only in Germany and the people in Montreal told us it would take at least three months to get a special order from Germany."

Claude noticed that Inco had a few bags of Alfrax, the abrasive resistant, cement-like material to make the inserts, left over from another job. He suggested that Inco pour their own inserts. "We just mixed it up in a mortar box and poured it directly into the blade."

Not only did the home-grown equipment work, it worked twice as effectively as the imported inserts. "It takes about two hours to pour 50 to 60 blades," he said. "It used to take about two days to install the purchased ones."

There are 32 blades in each of 20 roasters.



Long Trip

In case you're wondering just how far Santa Claus had to travel to make it to the many Inco Christmas parties this year, this sign on Godfrey Drive clears it up. And that's only one way!

Exploration exploring satellite location link

Some people at Inco Exploration and Technical Services are spaced out these days.

Geologists who do the company's exploring can more accurately keep track of where they are in the backwoods.

The reason, a new hand-held navigation and position recording system that works in conjunction with a satellite network to make readings of latitude, longitude and elevation above sea level.

Called Global Positioning System Pathfinder, the high-tech navigation aid is undergoing trials by geologists to see if the system is up to the promise.

Carrying out the trial run is Geologist Everett Makela. He said that finding exact locations in the field of such things as property lines and rock outcrops can be very difficult in unfamiliar territory. Sometimes, he said, the location is obscured by a blanket of snow or other obstructions.

He said that finding a particular spot in unfamiliar territory has in the past been a matter of finding a known position and pacing out distances from there with compass and map in hand. "That's only as accurate as the guy who's doing it. It's often only a rough estimate. Finding the spot right away is the exception, not the rule.

"As you get further up north, even the compass becomes less accurate. If this system works the way it's advertised, it should be a super help to our work of field exploration."

Another advantage of the system is that it can continuously record positions, at a rate of one position per second, and the information can then be transferred to a computer.

"That means you can drive a truck up a track with the Pathfinder turned on, then feed the information into a computer which will then print out a map with the new route on it. The system eliminates most of the possible errors associated with field recording of data.

"Another advantage," he said, "is that the system is compatible with our existing computer equipment."

Communications Specialist Doug Stickles, who conducted the search for suitable equipment adaptable for Inco Exploration, said that Exploration has been interested in such a system since the advent of satellite navigation, but this is the first time the equipment has been available for evaluation.

Doug Stickles and Everett Makela check out satellite location equipment.

Creighton "tourists" get pinned

You won't find it in any travel brochure, but one of the hottest spots for sightseeing is right here at Inco's Sudbury operation.

Creighton Mine.

The proof hangs on the wall near Creighton geologist George Janicki's desk, a huge world map covered with pins and multicolored pennants. Stuck in the frame at the bottom right-hand corner is a business card donated by N.S Gorbachev, a visitor from the Soviet Union a year ago.

"We've had so many visitors here over the years that we've had to get another map," said George. "This one covers from 1972 to 1988. We've got another one that includes 1989 to the present."

The map was the brain-child of former Creighton geologist Denis O'Donnell, now a rock mechanics expert at North Mine.

"We got the world map so we could identify places and events that were in the news, kind of a general interest thing," said George. "But then Denis got the idea that, with all the visitors that were coming here, we should mark on the map who these people are and where they come from."

Nobody thought that the map would turn into a pincushion.

"Often we'd get the visitors to place their own pins on the map. They'd find that they knew the other people who had been there before, sometimes from the same company. Often they didn't know that someone from their company had been there before."

While a majority of the pins are stuck in North America, there's hardly space left in some areas of Europe. Japan and China show the next most populated with pins, and Australia and South Africa also have good representation on the map. Scattered around the rest of the map are pins from such unlikely places as Reykjazic, Iceland, home of Bjorn Harderon who visited Creighton in 1981.

George said the number of pins represents only a fraction of the actual number of visitors. "One pin sometimes represents as many as 40 or 50 visitors. Repeat visitors aren't marked and neither are the many local and regional visitors we get through here on a regular basis. I figure the number of visitors we've had come through here over the years is in the thousands."

Creighton tourists range from mining people, politicians, educators and buyers to school groups.

A $50 million Sudbury Neutrino Observatory now under construction 2,000 metres below ground at the mine has seen the steady influx of a different kind of visitor. A stream of scientists, physicists and researchers have been lowered in the Creighton cage to get a first-hand look at the spot where some of the major puzzles about nuclear physics could be solved.

"The neutrino observatory has increased the number of visitors here significantly," said George.

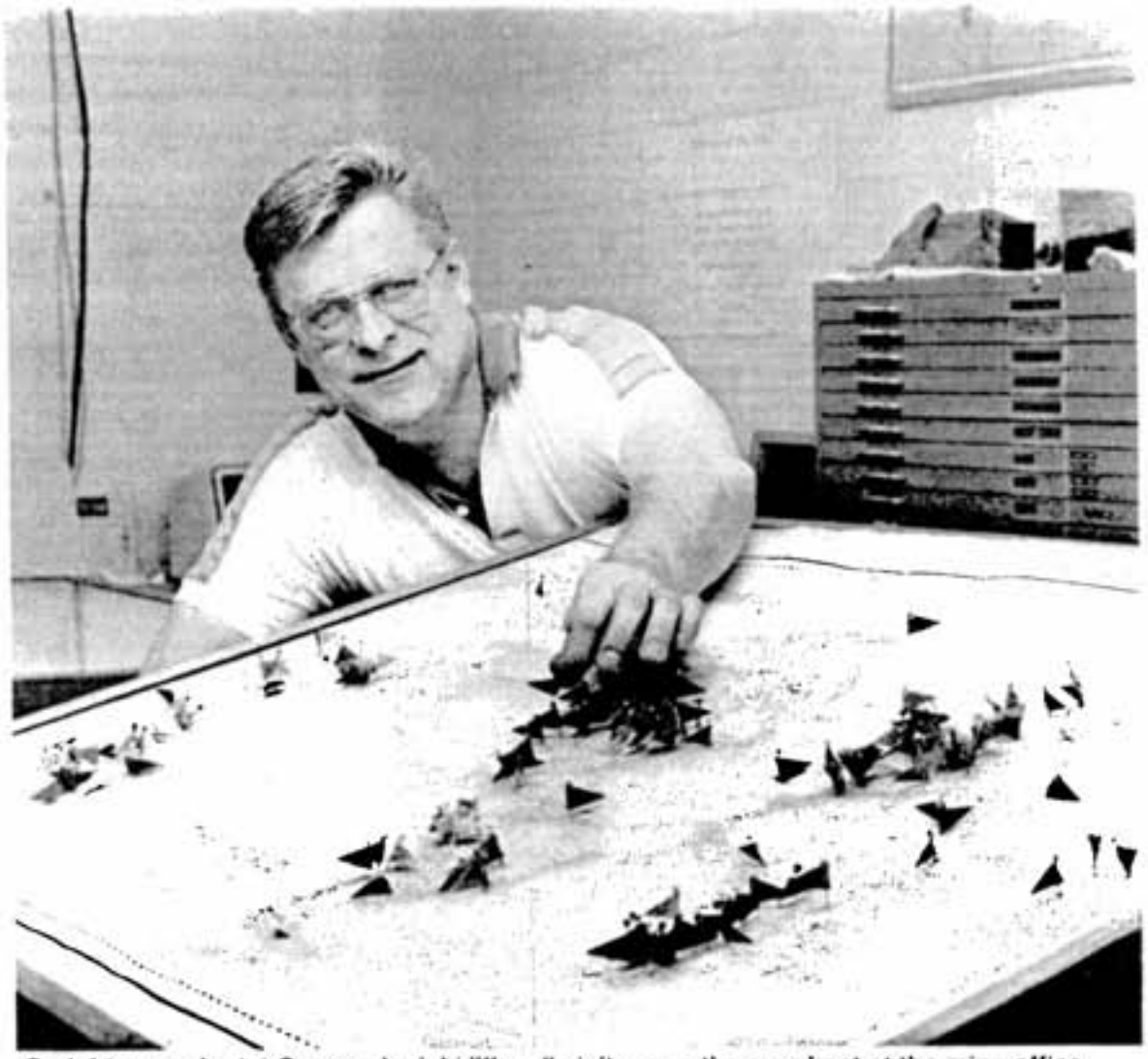
Creighton is a fully operational mine and the hectic schedule of visitors has to be organized without getting in the way of regular operations. After years of acting as host, the people at Creighton have the technique down to the last detail.

The fact that Creighton is one of the world's deepest mines adds to its attraction, but most visitors come to see the ultramodern mining techniques and the newest in technology and computerization.

Reaction by visitors to their reception has always been overwhelming, said George, but never as enthusiastic as one Russian professor from Norilsk, Siberia, who enjoyed the tour so much that he offered his guides a drink from the huge bottle of Vodka and glasses he yanked out of his briefcase.

"I'm Polish and I used to know a little Russian," said George. "With the little Russian I knew and some hand signals, I explained to him that drinking on the job wasn't allowed here."

As for the visit of Gorbachev a year ago, that's Nikolai S. Gorbachev of the Institute of Experimental Mineralogy, U.S.S.R. Academy of Sciences. The Soviet politician of the same name hasn't visited Creighton . . . yet.



Creighton geologist George Janicki "flags" visitors on the map kept at the mine office.

Christmas '90: Another good

Another Christmas and New Year's has passed and all that's left are memories, but judging from the scapbook of pictures, the memories are all good.

South Mine's Children's Christmas Party was a smashing success by all accounts and the mine's third annual staff party saw bobby socks, jeans, puddle dresses and saddle shoes pulled from the attic to meet the event's unique dress code.

Creighton's Christmas party saw youngsters lace on skates, devour hot dogs and drinks and whisper in the ear of Santa who joined the kids on the ice.

Creighton issued all youngsters a whistle.

"What a mistake. What a racket," mused one parent.

South Mine trainer Denis Charbonneau gets into the spirit.

Youngsters line up to whisper in the ear of Santa who was on hand again this year for Creighton's

General Foreman of Operations Keith Dupont tears up the rug with Diane Halman, wife of South Mine's Bill Halman.

Handbell choir rings in the season

Now for something completely

The Kampana Bells isn't your average teenage band.

No screeching electric guitars to melt the wax in your ears. No drums to rattle your fillings. Instead, the soft, gentle sound of the Lively-based group can put you in a mellow mood you probably haven't experienced in years.

And that, according to the director of the handbell choir, is one of the group's major attractions.

"It's something totally different, something you don't see every day," said Sylvia Carscadden who passed on her love of their form the music to Lively area teenagers. "It makes the girls feel they are doing something special.

"The majority of our kids are from the Walden area," she said, "so most of them are from Inco families."

Daughter of Purchasing Department buyer John Saddington, Colleen Saddington likes to play "the kind of music people will hum to.

"I like to play for kids and old folk," said the 17-year-old and veteran of the choir. "They really appreciate what we do."

She enjoys the companionship as well. "It's a good group to belong to. It feels like a big family."

The feeling of uniqueness has helped most of the teenagers stick with the group. Despite the fact that most of the young people have part-time jobs, a heavy schedule of school work and active social lives, most have stayed with the choir since it began six years ago.

Jennifer Emblin said she's "grown up" with the choir. The 17-year-old daughter of Occupational Health Clinic nurse Cheryl Emblin regrets that this past year was probably the last for the choir. "I'd love to go on, but I can't see another group starting from scratch. It's not hard to learn to play," she said, "but the hard part is playing together, to play as a team."

Sylvia isn't sure she'll begin another group again, although she has plans to work with some fresh young talent in the New Year. She is also toying with the idea of starting an adult choir.

Other than the sheer love of music, it's teamwork that holds the group together.

"These kids are tremendously committed," said Sylvia. "I think they love the music and performing, but they are also very committed to each other. They know that the choir can't perform with anyone missing, so very few ever miss a practice or a performance. Teamwork is one of the most important thing these girls learn as a member."

Lisa Koski, daughter of Creighton pipeman John Koski; Amy Pearce, Barb Maki, Jennifer Moule, daughter of process evaluator Donald Moule; and Colleen Saddington, daughter of buyer John Saddington of Purchasing.

She said choir membership has many rewards. As well as belonging to a group that is unique to the area, choir members get a sense of independence, accomplishment and commitment.

They learn music, and performing in front of appreciative audiences gives them a sense of pride and self-confidence.

Although the choir per-

one for record books

ınual children's Christmas Party.

Stephen VanEyk, son of Creighton mine engineer Len VanEyk, plays a tune on his whistle while Jim Holatko, son of Creighton's Senior Geologist Jim Holatko, doesn't like the song.

different . . . .

Amy Pearce, daughter of Smelter engineer Gord Pearce, gets ready.

forms throughout the year at weddings and other special functions and events, it's at Christmas that they are in heaviest demand.

This Yuletide season, they performed on five different occasions.

The handbells are a family heirloom given to Sylvia. She learned the bells and passed on the love of the music to her kids. When they grew older, she expanded the group to include youngsters from outside the family.

Much of the recruiting was done by word of mouth. "Members of the choir would often get their friends at school interested," said Sylvia. "That's how we got new members. We need 10 or 11 members to play three octaves."

But the time it takes to learn the bells, coupled with the necessity to learn as a group, has presented Sylvia with a unique problem that threatens to end the existence of the choir.

"It's hard to bring new people in as we go," she said. "That means when people leave their spots are hard to fill. We have only nine members today because many of our girls are moving on to schools elsewhere."

In fact, she expects to lose even more choir members this year. Most of the girls are approaching university and college age.

Handbell choirs are a European tradition, begun centuries ago by people being trained to play cathedral bells.

"People would be trained to play on hand bells before tackling the big church bells," said Sylvia. "Church bells were very important in the community," she said. "People who could hear the bells would be considered part of that community. That's one of the reasons why the church towers got higher and higher. The higher they went, the farther the ringing would carry."

Guitarist Zandra Zubak, wife of North Mine miner Bob Ross, found no difficulties getting the attention of Ryan Sirkka, grandson of South Mine Superintendent Ed Sirkka.

South Mine engineer Graham Bolvin, Karen McClosky, Jane Halas and South Mine engineer Ron "Snake" Halas get into the spirit at South Mine's staff party at Chevies.

Getting the bugs out of Inco is soggy work

This past summer, many Inco workers may have noticed a couple of students wallowing through watercourses near various company plants, trying to trap bugs.

While it probably looked rather strange to most observers, the exercise was one which likely will prove valuable in the company's ongoing commitment to reduce the environmental impact of its operations.

"The program was initiated by the environmental effects section of our Environmental Control Department," says Carolyn Hunt, an environmental analyst with the department.

"The students were hired to take water samples and samples of aquatic insects. What we hope to gain from this is to find out how we can use the presence or absence of insects to make certain assumptions in relation to water quality in the rivers and streams."

The insects were sent to a laboratory in Saskatchewan for analysis and the study will continue next summer, Hunt says.

The insect analysis is only a small part of an extensive program of monitoring the discharge of effluents from nine operations sites in Sudbury, Shebandowan and Port Colborne, Hunt says.

Since 1989, the monitoring of effluents has been conducted according to regulations set up by the Ontario Ministry of the Environment under its Municipal Industrial Strategy for Abatement.

However, Carolyn points out, the company "has been monitoring our effluents for years," prior to the introduction of the regulations.

The program consists of the monitoring and analysis of the levels of various chemicals discharged from four types of effluent: mine water, storm water, smelting/refining effluent and process effluent.

According to provincial regulations, water and effluent samples are collected and analyzed three times a week from the following sites of the company's Ontario Division operations: the Copper Cliff Waste Water Treatment Plant, the Nolin Creek Waste Water Treatment plant, the Copper Cliff Nickel Refinery, Crean Hill Mine, Levack Mine, Garson Mine, Whissell Mine, Shebandowan and the Port Colborne Refinery.

In addition to the weekly sampling, more sophisticated tests are conducted on a quarterly basis. This includes toxicity testing on rainbow trout and water fleas to help determine the effects of effluent discharges on wildlife.

"There are very rigid sampling guidelines under this program," says Carolyn.

Data compiled from these tests "allow us to look more closely at our effluents and find out where the problems are and it allows us to do something about it.

"It has been very beneficial, in that we've seen things that we can change to improve the effluent on a daily basis."

She adds that further improvements lie ahead, with the company committed to meeting regulations to be set by the province in the future.

"The program has given us a handle on ways we can improve our effluent quality. I think there will be a lot of positive effects from it.

"I think the main initiative (in the future) will be on treatment technologies," she says. "A lot of work will have to be done. It will require using the best available technology as it comes along."

Carolyn Hunt, an analyst with the Environmental Control Department, enters water sampling data into a computer as part of an extensive effluent monitoring program.

Family business a going concern

Port foreman moonlights for after-hours boss

Behind every great woman is a man?

Well, that's not exactly how the traditional saying goes, but at Port Colborne's new dry goods store, The Mercantile, it's absolutely true! And the man that's behind the woman — Larry Foster — works at the Port Colborne Refinery when he's not helping out at the store nestled on picturesque West Street along the historic Welland Canal.

Becky Foster has wanted to run a retail operation since she was very young.

She's dreamed of a traditional, friendly, back-to-basics people place she avidly watched on television's Little House On The Prairie.

The merchandise and staff at the Mercantile appear as if they are both from a different era, when quality and appearance went hand-in-hand to satisfy happy clients. Clerks are dressed in country jumpers designed by Becky Foster herself. Everything else about the staff and surroundings harkens back to a different era.

The Mercantile is a shopper's cornucopia, where customers can spend hours looking for that special something and come out with an armful of items that are completely different from anything they've ever seen before.

Husband's support

Becky's dream has now become reality, thanks to the hard work and backing of her husband, family and friends. Not only has her store been successful for more than a year, but she recently won an Entrepreneur of the Year Award from the Sugarloaf Marketer's Club, a local business association.

Larry Foster is a maintenance general foreman at the refinery, having been with Inco for 21 years.

The 41-year-old father of two is behind his wife all the way and he's "extremely proud" of her achievement.

With his drafting background and technical aptitudes, Larry created a rough idea on paper of what Becky, 41, wanted her store to look and feel like.

With the help of a flexible building owner, The Mercantile took shape and opened last September.

Since then, the shop of curiosities has been a welcome addition to the many new merchants along West Street as they revitalize the neighborhood and inject a little something extra into the local economy.

Becky has been the energetic, driving force behind this unique venture that has been warmly welcomed by the community and visitors from far beyond the Niagara Region.

She's the boss, but has accepted the huge responsibilities that go with the position.

Seeing eye to eye

"I'm the general foreman on this project," she laughs, and she is very thankful that Larry can translate some of her ideas into concrete form. "Larry sees through my eyes and builds what I want."

Working double shifts and putting thousands of miles on her car to find just the right mixture of ephemeral and practical merchandise at her business, Becky is grateful for all the support that has sustained her through the growing pains of a new venture.

Daughter Alison, 14, mother Ett and nieces Fonda, 15, and Leigh Ruiter, 14, (their father John is in the refinery's precious metals research section) work twice a week, while 10-year-old son Aaron cleans up, answers the phone and helps out wherever he can.

Larry is always standing by to lend a hand and the all-important moral support. He just happens to be the major investor in Port Colborne's version of Ye Olde Curiosity Shoppe."

More than moral support

Larry also put the finishing touches to the cozy shop in his ever-decreasing spare time, at the end of an invariably demanding Inco day. "I painted, wallpapered and refinished the beautiful hardwood floors. I also added appropriately styled shelves inside and a picket fence style front gate to the building," he said. In the past, the premises served as a toy room at the Rawlins & Martinson hardware store that Becky and Larry used to visit in their younger days of the 50s and 60s.

Like any visionary community, Port Colborne is hoping to diversify its economy beyond the established industrial base.

The Fosters are part of a fast growing tourist industry that hopes to welcome more and more visitors to the lakeside city, yet their idea of an old-fashioned general store has captured the hearts of Port Colborne natives as well.

Becky Foster and daughter Alison outside The Mercantile in country store costumes.

Plumber's 25-year work record: all shifts, no misses, few errors

The luck of the Irish has smiled upon Joe Donohoe for 35 years.

During that time the diminutive maintenance mechanic with Central Utilities has never missed a day's work at Inco.

"To the best of my knowledge," he quickly adds, qualifying his outstanding work record in a heavy Irish brogue. "I've changed my days off to suit myself and I've changed my days off to suit the company, but as far back as I can remember I've never missed a full shift."

Joe, 58, came to Canada in 1954 as a 23-year-old plumber looking for work. He spent a summer working construction and a winter driving buses before beginning his career with Inco.

"They have no classification for plumbers so they call us maintenance mechanics," he said. "But 99 per cent of the time my work involves plumbing or heating."

It also involves Joe travelling wherever he's needed throughout the company's Sudbury area operations. It's a versatile job and he loves it, which helps explain his remarkable attendance record.

"You have to love your work to show up every day," he said, "but you also have to be healthy. I think I'm lucky as hell that I've never been ill enough to stay home.

"There were a lot of times in my early years with Inco when I was late for work but I always managed to get here."

Good health aside, a likely factor in Joe's astonishing lack of absenteeism is the strong work ethic instilled in him as a young plumbing apprentice in Cavon County, Ireland.

"I started my apprenticeship at age 15 and I've never been out of work or missed a day since, except when changing jobs," he said.

"At that time it was normal in Europe to apprentice with no pay and that's exactly what I did for seven years in Ireland.

"I was lucky enough to serve with my father who was a plumber/contractor. If I had been forced to apprentice with a stranger, I would not have been paid and my parents would have had to pay the man to teach me."

That startling introduction to the working world has made Joe appreciate his job here at Inco. If his health hangs on, he sees no reason to ever miss a day's work.

"In 35 years I've seen a lot of changes and they've all been for the better," he said. "New technology has made plumbing easier and the advancements haven't been hard to keep up with.

"One thing's for sure. Apprentices today in Canada and at Inco have it made."

Joe Donohoe has never missed a day's work.

Chilly chance for World Cup

Brian kicks soccer balls into snowbanks

Every Saturday morning, 16-year-old Brian Ashton rises before dawn, grabs a quick breakfast and is out the door to join his teammates for a game or practice.

While this scenario would seem a common one for many young athletes in the Sudbury area, the similarities end there.

For Brian, an early start translates into a 2 a.m. wake-up call, every Saturday, all year round. And while his peers play hockey in the comfort of an arena, Brian travels five hours to play soccer - outdoors, come rain, sleet or snow.

And he wouldn't have it any other way.

The son of Ron Ashton, a construction worker at Creighton No. 9 shaft and a 21-year Inco employee, Brian has made great sacrifices and displayed a remarkable commitment to become one of the top young soccer players in the country.

The Grade 11 student at St. Charles College is a member of the 16-and-under national soccer team.

A lot of miles

The national team is based in Hamilton and holds practices and exhibition games every weekend. As a result, the Ashtons have put 90,000 kilometres on the family van in less than two years of weekend jaunts to southern Ontario.

The only member of the national team who hails from Northern Ontario, Brian says he doesn't mind the travel schedule or the uncompromising weather conditions.

"I'm used to the snow and the cold," he says. "The guys from down south have a little more trouble with it."

Usually, the team practises at McMaster University in Hamilton, but when the snow flies, "we move to Ivor Wynne Stadium. They clear the snow off the astroturf and we keep playing outside. Everybody wears their ski pants with their cleats and we practise full out."

Playing in sub-zero weather is a fact of life if Canada is to develop world-class soccer players, says Brian, a centre/midfield.

"We just can't compete with other countries, the soccer powers who play all year round, unless we do the same," he says.

Competing with the world's finest, namely in the First Division of English soccer has been Brian's dream for many years.

"When I was younger, all the kids used to come out on the street with their hockey sticks and balls, but I used to kick the balls around," he says.

It was no accident that soccer was in Brian's blood from an early age, since his father was an avid footballer in his native England.

"My dad played in England and he was quite talented," Brian says. "When he came to Canada he played in the senior league here and my mom used to bring me to all the games."

Brian credits his father for being "the biggest help for me. He used to take me out a lot and he taught me a lot about the game." He also praises his former Sudbury minor league coach Claudio Rossi, who "taught me a lot of the skills of the game."

In addition to the eagerness to learn from his coaches, Brian also has shown that he doesn't shy away from hard work. Proof of his dedication came three years ago in his first tryout for a provincial team.

"I didn't make it," he recalls. But instead of giving up, he continued to train and the following year he was back for a second, successful tryout. But he was a second stringer on the provincial squad and that wasn't good enough.

"During that summer (1989) I practised hard because I knew this could be my last chance to make the provincial team and eventually the national team," he says.

He earned a starting position on the provincial team and since joining the national squad last spring has had his share of excitement.

The highlight came last summer in Kitchener during the Gillette Cup, which featured the Canadian, American and Mexican national junior teams.

Winning goal

The final game against Mexico had to be settled by penalty kicks and Brian volunteered to take his team's fourth shot. He scored, giving his team the championship.

He was looking forward to similar thrills at an international tournament in December in Mexico. That event was to be followed by a qualifying tournament in Costa Rica to select teams for the 1991 junior World Cup.

"I just can't wait for the chance to play in the World Cup. It would be an unbelievable experience."

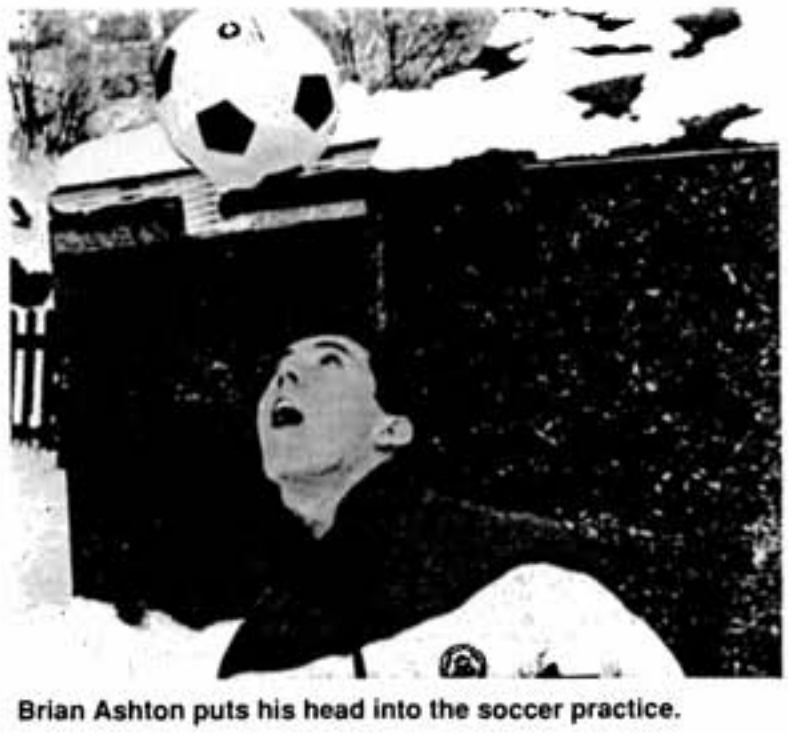
Brian's commitment to the game - including two-hour, solitary practices every weekday - has impressed his parents. "We encourage him as much as we can," says Ron. "He enjoys it and he's doing well.

"He's very dedicated. If there is ever a weekend when I can't go down with him, he hops on the bus and goes himself."

With his demanding schedule, Brian says he recognizes that "I don't have time for a girlfriend or doing a lot of other things on weekends. But it's paying off."

Someday he hopes to earn a shot at a First Division team in England such as Sheffield Wednesday, his father's favorite. With the determination he has shown to date in his young soccer career, don't count him out.

Snow or freezing cold, Brian Ashton stays on the ball.



Brian Ashton puts his head into the soccer practice.

In your yard...

Growing things . . . underwater

By Ellen L. Heale, P.Ag.

Planting an aquarium is similar to creating any other type of garden. Texture, color, size and balance are all important design elements of 'aquascaping'. The Dutch have created beautiful underwater gardens in Leiden-styled aquariums, only a few fish are kept in them. Underwater plants require balanced light, nutrients, temperature and water for optimum growth.

The distribution of aquatic plants throughout the world is not controlled the same way as land or terrestrial plants. Aquatic plants are affected by the water temperature and seasonal variations. Several Arctic species flourish in water frozen solid all winter and slightly above freezing for a few weeks in the summer. Other factors affecting aquatic vegetation include light, the bottom - whether it is mud, sand or gravel, the pH and saltiness of the water, motion of the water, organic matter content, competition with other species and methods of propagation.

Many attractive varieties of plants are available for freshwater aquariums. Some plants adapt very well, others are more challenging to grow, some require a specific environment for successful growth whereas others will tolerate a wide range of conditions.

Real plants contribute to the overall health of the aquarium. A percentage of plastic plants is beneficial and creates an efficient biological filter. The plastic soon becomes covered with a plaque of nitrifying bacteria which reduce the levels of ammonia (excreted by fish) and nitrites in the aquarium by converting them to less-harmful nitrates which real plants use as food. However, real plants are also required to create a balanced aquarium. They remove excess mineral salts, nitrates and other organic materials and use them as fertilizer. In addition to water purification, removing carbon dioxide and adding or redistributing oxygen, real plants provide shelter and a site for spawning and a source of food.

Green plants require light. In an aquarium too much light encourages algal growth, too little restricts plant growth. A balance is needed between the types of plants, the intensity and length of lighting and the size (depth) of the tank. Daylight is good for underwater plant growth. However, direct sunlight may overheat the water and cause excessive algal growth. Winter daylight and length will need to be supplemented with artificial lights, preferably fluorescent tubes. For an aquarium 30 cm deep, 10 watts of fluorescent light are required for every 30 cm of length (example one 20-watt fluorescent tube for an aquarium 60 cm long). Deeper tanks generally need more intense lighting with mercury vapour or metal halide lamps. The aquarium will require 10 to 15 hours of light per day. Always insert a glass cover between the surface of the water and the light source to prevent splashing or condensation. Taller plants can be used to shade species that require lower light levels. Leaves or plants floating on the surface will also provide shade.

Underwater plants obtain essential nutrients from the water, nitrates, organic matter and the growing medium. In contrast to land plants, many aquatic plants have poorly developed internal water-conducting tissue and have adapted to a low oxygen environment. A few aquatic plants feed through root systems but most species obtain nutrients directly through their leaves and use their roots for anchorage. Individual, specimen plants may be grown in preformed nutrient plugs and buried in aquarium gravel. Gravel may be either high calcium (for calcium-loving plants) or calcium free. Liquid or tablet fertilizers are specially formulated for aquarium use - do not use 'house-plant' food. Follow the manufacturer's directions for use.

Underwater plants may originate in cold water locations, while others may be tropical. Tropical species prefer warm roots and a base heater or special heating cable buried in the gravel may be necessary. The gravel must be deep enough to avoid burning plant roots.

Clean water is essential. Most aquarium plants prefer moderately soft water with a pH of 6.8 to 7.0. A sudden change in water conditions may cause some plants to drop leaves (usually temporary) so adjust the water conditions gradually over several days.

The planting medium should be clean sand or gravel. For aquariums filled with undergravel filters do not use clay or loam. The crown of the plant should be level with the top of the gravel bed or slightly above. Avoid placing the plants too deep.

Purchase healthy-looking plants as soon as your dealer receives a new shipment. Inspect all plants carefully to ensure that they are in good condition and clean them thoroughly. Wash real plants in 22°C fresh water that contains a commercially prepared plant cleaning agent or water containing potassium permanganate crystals (to colour the water pale pink). Follow directions for use and rinse plants thoroughly with fresh water. Clean plastic plants in warm water containing domestic bleach. Test a small piece first to ensure the bleach will not damage the plastic. Finally, rinse the plastic thoroughly in fresh water. There are advantages and disadvantages to planting either before or after the aquarium is filled with water. Before filling, plants won't float upward or become tangled. Final results will only be obtained once the tank is filled with water. Tall, background species planted along the sides and back will give the aquarium depth - do not cover all of the glass. Filler plants should be added from the sides towards the centre. Low-growing plants should be used in front. Individual specimens should be used sparingly. One guide estimates allowing one plant for every 25 cm of base (example in an aquarium 30 cm wide by 60 cm long you will need 72 plants).

There are three major types of aquarium plants - including single-rooted, bunched and floating species. Each type will be outlined with examples and characteristics.

Single-rooted aquatic plants each have a root, crown, stem and leaves and should be set in gravel with crowns exposed. Plants reproduce vegetatively by runners, developing plantlets on leaf surfaces or by division. The Japanese Dwarf Rush or Flag (Acorus gramineus) has narrow green leaves arranged in a fan, it grows to 38 cm, is slow growing and prefers a cool environment. The African Spearblade (Anubias lanceolata) has bright green leaves (36 cm long) on tall stems, prefers shade and acidic water. The Madagascar Lace Plant (Aponogeton fenestralis) has beautiful lace-like (skeletal) leaves, requires shade and regular water changes to prevent algae from clogging the leaves. Baby's Tears (Bacopa monnieria) has pairs of opposite, fleshy leaves along a central stem. High temperatures cause leaf rot and it requires strong light. The Water Trumpet (Cryptocorne blassii) is a specimen plant that prefers low light intensities.

Amazon Sword Plant (Echinodorus grandiflorus) has large heartshaped leaves that will quickly decay if algae grows on them. Plant Amazons with crown exposed and roots covered in good light conditions. Hairgrass (Eleocharis acicularis) has tall, needlelike leaves, it is easy to grow in most conditions but also requires good light. Hydrilla verticillata has whorls of narrow, dark-green leaves along its stems. It prefers cool water, grows quickly and may require occasional pruning. If the Giant Indian Water Star (Nomaphila stricta) grows above the surface of the water its leaves become hairy and it flowers. The Arrowhead (Sagittaria graminea) grows best in slightly alkaline water. Giant Eel Grass (Vallisneria qiqantea) is a fast growing aquatic plant. Its grass-like leaves (straight or corkscrew varieties) may reach 91 cm. Eel grass prefers bright light and is easy to grow.

Bunched aquatic plants have long stems and form leaves, shoots or roots from nodes along the stem. Most grow on the water surface. Fanwort (Cabomba aquatica) is difficult to grow, with its feathery leaves it requires good light and warmth. Goldfish or Waterweed (Egeria densa) grows easily and quickly, it tolerates cold water and is used as an egg-trap in breeding tanks. Water Thyme or Canadian Pondweed (Elodea canadensis) is another fast-growing aquatic that prefers cold water (12°C). Water Wisteria (Hygrophila difformis or Synnerma triflorum) has green, ragged-edged leaves with white undersides, prefers neutral to slightly acid water and low light. Ambulia (Limnophila aquatica) is a bushy plant with finely-cut leaves. Above the water surface it produces lilac flowers. Ambulia is easy to grow, prefers soft water and good light. The Java Fern (Microsorium pteropus) has large (25 cm) tapering, brown-green leaves. It grows slowly, in light shade, its long hairlike roots anchor the plant to rocks or logs in the aquarium.

The final type are floating plants, either on or under the water surface with roots free or anchored in gravel with leaves on the surface. Floating plants may have to be continually thinned out to allow light through the aquarium. The Hornwort (Ceratophyllum demersum) has dark green, very stiff leaves. Duckweed (Lemna minor) is very prolific and will quickly cover the water surface. Leaves are bright green, round (up to 1.2 cm diameter) and are valuable food for vegetarian fishes. Duckweed prefers heat. Water Lettuce (Pistia stratiotes) has velvety leaves and long,trailing roots (creating shade and shelter for fry). Plants prefer heat and good light.

Due to the fact that they will tolerate a wide range of water conditions and respond in moderate light, the following plants (from the book Underwater Gardens) are recommended for beginners: Bacopa, Ceratophyllum, Hygrophila, Sagittaria, Synnema and Vallisneria.

For further information on growing aquatic plants and underwater gardening consult an aquarium dealer, local amateurs, your reference library or specialty books. With or without fish, underwater gardening presents many unique challenges for yearround, indoor enjoyment.

Miners meet to discuss waste hazards

Problems and solutions related to liquid effluent discharges into the environment were addressed at a seminar sponsored by The Mining Association of Canada (MAC), in cooperation with the Ontario Mining Association and Environment Canada.

The seminar, held in Sudbury recently, brought mining companies' technical experts with responsibilities for the environment together with federal and provincial government officials. Topics examined included regulatory requirements, compliance status of the mining industry, and existing technologies. Sectoral workshops also provided an opportunity for reviewing problem areas, potential solutions and areas requiring further research.

The mining industry is strongly committed to improving its environmental performance and having individual companies tackle the issue of liquid effluents. The meeting was open to member and non-member companies of The Mining Association of Canada. It is one of several initiatives designed to implement the guidelines set out in the MAC Environmental Policy announced last year and the recent Guide for Environmental Practice.

Based on the positive results and response to the Sudbury seminar, further seminars are anticipated in other mining regions of Canada.

Thompson's Inco troops to the rescue

When the south wall of the Army, Navy and Airforce building collapsed in Thompson, Manitoba late last year, tens of thousands of dollars of furniture and equipment were left exposed to the elements.

Veterans knew they had to get the equipment out in a hurry or face a very expensive disaster.

Within 48 hours after a telephone call to Inco by Thompson veterans, a convoy of seven Inco employees in five Inco trucks drope up to the building.

"Like an old-time building bee," was how veterans described the special assistance that saw over $20,000 worth of equipment saved and boxes of irreplaceable items.

Jim White, president of the Army, Navy and Airforce Veterans said if it hadn't been for the help of Inco people, local veterans wouldn't be "looking at daylight for a long time."

Inco VP leads OMA

Inco's Vice-President of Human Resources Mike Sopko is slated to be the next chairman of the Ontario Mining Association.

He'll take the baton from outgoing chairman Andy Rickaby, Vice-President of Mining at Denison. The changeover will be effective in March.

Geologist/prospector has rocks in his hands

Between a rock and hard place . . . and loving it

Wayne Manson has witnessed dramatic equipment and technological advances during 30 years of prospecting, but at least one constant has gone unchanged in his job for decades.

"You've got to pound the rocks," says Wayne, an area geologist with the Exploration and Technical Services department.

While new equipment and technology have made surveying, claim-staking and other aspects of the job easier, the basic approach to prospecting remains. And it's what Wayne and many of his colleagues enjoy most about their jobs.

"I like to get out there and beat the rocks," he says from his Copper Cliff office.

"You never know when that next outcrop is going to have the juicy stuff in it. You won't find a mine sitting in here. If you don't pound the rocks, you won't find it."

Wayne was a teenager when he got his first taste of prospecting during a summer job in 1957 at an Inco (Canadian Nickel) operation in Lac LaRonge, Sask.

After "three or four years" of summer and part-time prospecting jobs, he decided to pursue it full time. In 1969 he took a leave from the company to go back to school, and in 1974 earned his geology degree. His career has taken him to seven provinces and both territories, from the Yukon to New Brunswick.

These days, Wayne reluctantly admits that more than half his time is spent at the office and he still looks forward to the opportunity to work in the field.

"You have to enjoy being outdoors, slogging it out in the bush to be a good prospector," he says. Success also requires patience, teamwork and in many cases, luck, he adds.

While the potential rewards are obvious, prospecting "is not a life of glamor", says Ed Debicki, manager of exploration for Ontario.

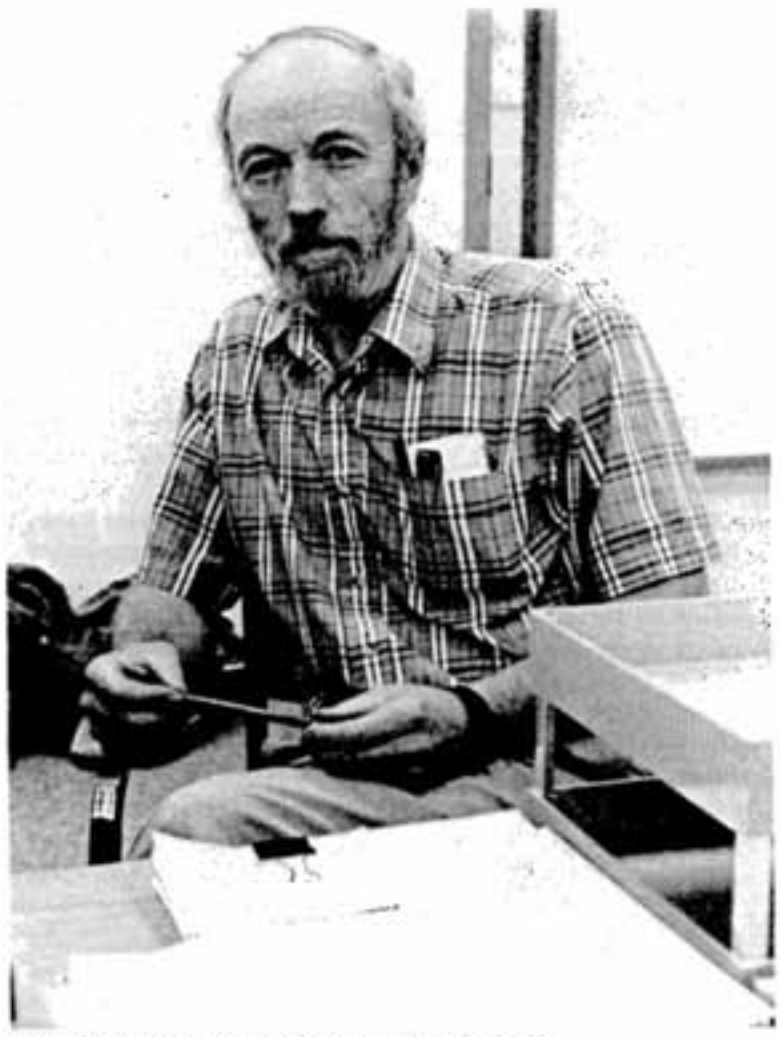
"To be a prospector, a geologist, you have to like the bush, being alone," says Ed, who spent a dozen years working in the bush. "It can be a fairly tough life because you spend a lot of time away from home."

But "once it gets into your blood it's pretty tough to get rid of it, the quest for that big find," he adds. "A good prospector has a sixth sense to find mineralization. They have the eyes and nose for it. It's remarkable.

"We've gotten back to that . . . good old-fashioned prospecting, where the guys just do some rock-smashing, trying to uncover any kind of outcrop or mineralization which might lead to a big find."

In the Ontario Division there are 16 prospectors working in areas such as Red Lake, Shebandowan and Kirkland Lake, says Ed.

"We've been very, very active, particularly in gold exploration, for the last 10 to 12 years," he says. "We also look for other base metal deposits, with an emphasis on nickel and copper."



Geologist Wayne Manson: A rocky outlook.

Some exploration areas include five or six claims, while others can consist of 500 or 600 claims, he says. (One claim is about one-sixteenth of a square mile in area.)

After three decades in the bush Wayne says he's learned that the big, easy finds certainly are few and far between.

"It's very rare that there is a sudden discovery," he says. "It's very much a group effort, particularly with Inco, from management on down. And it's a long process."

For example, he points to the opening of the Casa Berardi Mine in LaSarre, Que., in 1987.

"If you look back at the first efforts to survey that area, before things came to fruition, you're probably looking at 15 years."

The process which leads to the development of a mine can be compared to "one big jigsaw puzzle," says Ed.

From the prospectors pounding rock to the geologists collecting and analyzing soil samples, "you try to find all the pieces in the field, and then you try to reconstruct them on a map. Every so often, all the pieces fit."

Four-wheeled memories keep car buffs young

Bill Dyck was still in grade school when he learned to drive and it was an experience that touched off a love affair with cars that endures some 35 years later.

"I remember my dad teaching me to drive when I was 10 or 11 years old," says Dyck, a mine geologist at Garson Mine and a longtime member of the Historical Automobile Society of Canada.

For Bill Charsley, another veteran of the Historical Automobile Society, the story is similar. He barely was a teenager when he first got behind the wheel and began developing his passion for cars.

"I started driving when I was 13," recalls Charsley, 60, a retired miner and heavy equipment mechanic at Garson Mine.

"I was always playing around with cars on our (Wahnapitae) farm during the war. My dad was in the army, but we had to keep the cars running, so that's where I got started."

About two years after he learned to drive, and with his father still in the armed forces, "my mother decided I should get my licence," Charsley adds with a chuckle.

"But I was only 15, so I didn't think I could get it. Then the girl in the (licensing) office says to my mother, 'Just write down that he's 16,' and that's what she did."

While their days of bombing along back roads before they even started high school are long gone, they haven't been forgotten by Charsley and Dyck.

Both men have been preserving those memories for years with a common hobby - restoring early model cars.

Charsley has been a member of the Nickel Region chapter of the Historical Automobile Society for 26 years and is the group's current president. Dyck has been involved for 24 years and is treasurer and past president.

"I probably wouldn't have retired when I did if it wasn't for this hobby," says Charsley from his Wahnapitae home.

Over the years Charsley's restoration projects have included classics such as a 1935 Ford Coupe and a '55 Chevy Bel Air. He currently is working on a friend's '37 Dodge Coupe and this winter he plans to restore a 1927 Model T.

"It gets me out of the house and it gets me a lot of fresh air. I enjoy it very much," says Charsley, referred to as "Uncle Bill" by fellow members of the car club.

For his part, Dyck had just graduated from Lively High School when he tackled his first restoration project.

"I got my first old car in '64," he recalls. "I bought a '47 Chevy for $15, then I bought a parts car for $25 and between the two of them I built a car.

"I kept it for four years, then I replaced it with a '48 Oldsmobile. I still have that one," he said.

Dyck has since restored a number of other cars and along with his '48 Olds, he owns a '55 Chevy and a '57 Chevy.

Restoring classic cars "is something that's just relaxing for me," he says. "It takes you away from your daily job and there's a lot of satisfaction in it. There's a sense of pride involved, there's no doubt about that."

For Dyck, the greatest satisfaction comes not from seeing a restored classic sitting in a showroom, but from driving it along the open road and re-living old memories.

"I don't own a car to look at, I like to drive them around. I license my cars every year."

As with many members of the Historical Automobile Society, Dyck and Charsley for the most part were self-taught in the restoration of antique cars.

"A lot of people in the auto restoration business do not have a mechanical bakcground at all," says Dyck. "But I was lucky when I started; my father helped guide me and he showed me the right way to do things."

Dyck's late father Buster was a mechanical engineer in Inco's maintenance department.

Inco pensioner Bill Charsley with the1937 Dodge Coupe he restored.

HERITAGE THREADS

Beyond the comfort zone

by Marty McAllister

On New Year's Eve, my friend John McLandress asked me: "What's your next column about?"

I usually have three or four possibilities roaming around under my grey skull-cover, but this time . . . blank. Empty. Not even the germ of an idea. There's a fashionable term for it: Writer's block..

A miner would say I've done all the high-grading I can get away with and that I'd better get busy with some development work. Okay, the jig's up — so now what? I've done all the good things a serious young (alright, skip the young part) writer should do. I've set aside my own private space downstairs and I have a computer. I subscribe to Writer's Digest and I have a filing cabinet that's stuffed with old articles, pamphlets, and totally confusing GST information. My bookshelf divides its space between reference material and writer's how-to books.

One of those books says writer's block can be beaten by "subduing ego-consciousness." Right. Sounds more like a diet breakfast to me.

A best-seller's advice

Maybe I'll try something else. At a conference last summer, author Sue Grafton ("A is for Alibi", "B is for Burglar", etc.) shared a lot of her thoughts on getting the creative process rolling. A joy to hear and fresh from signing a six-figure contract, Sue was very popular. People who don't even read mysteries were suddenly dying to write one. Anyway, she cut through a lot of marsh muffins and told the truth: "It's a lot of work; the pleasure comes when it works right."

The down-to-earth Ms. Grafton is a firm believer in the left-brain/right-brain thing. Left brain is the organizer . . . the analyzer . . . the critic. Right brain is the creator . . . the artist. You must, however, give polite assignments to right brain; it won't respond if you're too demanding. Some days, Sue claims, her right brain is downright stubborn and pouty — so she tricks it into sitting down just to "fool around for a little while" at her keyboard. She shuns her left brain, sweettalks herself, and . . . voila!

She starts her day with her journal, feeding her computer anything and everything that crosses her mind: "Finally getting down to work today. Will go back and see how Chapter 12 reads. Must remember NOT TO EDITORIALIZE!! . . . just doing correspondence and phone calls, trying to clear the decks . . . Can't think what I'm doing wrong. This just doesn't feel right. . . Kinsey and Dietz get home from the banquet and the phone rings. Agnes is dead."

Marty's journal

That's it: my New Year's resolution will be to start doing a journal! I'm on holidays until the seventh and I can do mental doodling with the best of them. Let's see.

91-01-02 — Okay, so I'm a day late. Ran into John Szendrey and Evo Falcioni at the Supermall last week. Haven't seen Evo since I left the winding shop, 30 years ago. He's been retired ten years, and looks better than I do. John wants me to do more Creighton stories. I'd love to, but I'm afraid the Garson and Levack folks would lynch me: 'Oh, no! Not another Creighton yarn! Is Tom Davies paying him off, or what?'

Speaking of Levack, also saw Dave Lennie a few days earlier. Why is it that these guys keep asking me if I've taken my pension yet? It doesn't seem that long since I was one of the junior guys in the gang. How did I suddenly jump ahead to being an old fart? I've only been a grandpa for four months and my hair's no greyer than Dar Anderson's. And, I'm not ready for some sweet young cashier to ask me if I have a senior's card.

91-01-03 — Must sort through the stack of material so kindly sent by Lou Bures in New York, easily good for a half-dozen stories. . . Wonder how Allan Bale likes being our very own 'Prince of Wales'? . . . Took Odie for another walk; it's the only time I can smoke in peace. Which makes me wonder: Why does a smoky room stink so much nowadays? Didn't used to. Probably the first fragrance in my memory, maybe next to horse-dung, is that of Cecil Appleby's pipe. What a dear old man, and what magic his parlor held for the six-yea-old he called 'Buster.' How is it I can remember that far back and then forget that cursed little report Bob Todd wants every month? .... Think I'll watch a movie .

The pressure's on

91-01-04 — Maybe this new diet will help. And exercise, there's the thing! But how do you walk around the block when you live on a dead-end road? Even Odie's confused. Cul-de-sac, my foot. Have to get my thoughts back in the history vein. Must quit talking to ghosts, people are looking at me rather strangely, ... Don't understand that, Arthur C. Clarke gets big bucks for his "Strange Powers" program. John Gast just called me at home, right in the middle of a creative rush He wondered when he could expect my January column. He wonders! "No problem, John! I'm just about ready to wrap it up," I said. Took Odie for another walk.

Planning's over; time for action

91-01-07 — Up early, getting ready to go back to work. I'm actually looking forward to it. Board of Directors meets today. No, I'm not invited, but I'm hoping they'll approve a project that's dear to my heart, the conversion of our old 25 cycle power plants and stuff.

THAT'S IT! I'll write a column about the amorous adventures of #5 generator. Don't have much time, but deadlines are healthy.

Here come those big paws thumping down the stairs.

Where are my cigarettes?

That dog'll be the death of me yet.

Now I know what Sue Grafton meant when she said: "I like to be scared. I like to be right out there on the edge of my skill and ability — beyond the comfort zone."

Changes to stock, share programs

Inco Limited announced that it will reinstate the five per cent discount on common shares issued under its Optional Stock Dividend Program effective with the dividend scheduled to be considered on February 13, 1991. The company will also increase the limit shareholders may invest under its Share Purchase Plan starting in the first quarter of 1991.

Under the Company's Optional Stock Dividend Program, common shareholders may elect to receive common shares in lieu of a cash dividend. For the past two years, shares issued under this program have been valued at full market prices and participation has averaged seven per cent of the shares outstanding. Prior to 1989, shares issued under the program had been valued at a five per cent discount from market prices and participation averaged 20 per cent.

Limits boosted

Under the increased limits for the company's Share Purchase Plan, common shareholders may now invest up to $10,000 (U.S.) or $12,000 (Cdn.) each quarter to purchase common shares at prevailing market prices.

In commenting on the changes, the company said that the Optional Stock Dividend Program is intended to raise equity capital on a continuing basis. By reinstating the discount, it is expected that participation wil return to the 20 per cent level. The increased limits for the Share Purchase Plan, which simply adjust for the declining purchasing power of the dollar and changes in the relative values of the U.S. and Canadian dollars, accommodate those shareholders who wish to increase their quarterly purchases.

Both programs enable shareholders to acquire additional shares without brokerage, commissions or service charges. Shareholders will be sent a package of information describing the changes and explaining how to participate in the programs.

LETTERS TO THE EDITOR

Cat Swing, etc, . . . or Snowball Express?

Dear Sir,

I read the article by Marty McAllister entitled "A Bridge From Heart To Heart" with great interest. I was the resident geologist at Thompson,(called Cook Lake at the time), during the winter of 1956 - 57. I lived in a diamond drill camp on the shore of Thompson Lake, which was the terminus of the freight haul from Thicket Portage on the CNR. In fact, the tractor shown in the picture was arriving at Thompson Lake about 100 yards from my tent. We got used to the tractors roaring around on the lake, day and night, in front of our camp. It was an interesting and exciting time. I got to know most of the people associated with the operation and appreciated the great job they were doing under very difficult conditions.

I would like to set the record straight on one point. The freight haul was never, ever, referred to as "The Snowball Express". That name was dreamed up by some reporter who probably thought it was cute, and that was several years afterwards. We called the operation the freight haul, the cat swing, the tractor train, etc, but I never remember hearing it referred to as the Snowball Express. We would have thought at the time that that was a silly name. I still think so.

It was, however, a remarkable operation, and there is a lot of credit due to all the people involved.

Yours truly,
Grant Hambley

Reads Marty's column first

Dear Marty

Have been intending to write you for some time but never got my act together. Just want to say that I enjoy your articles very much— usually look for them before I read the remainder of the paper. I expecially enjoyed your article on Thompson.

Keep up the good work. If you are ever in Winnipeg or Thompson let me know and see if we can't get together.

Best regards,

Tom Moody

One of 1990's highlights

Inco's innovative IPC process recognized

With the New Year upon us, Inco can look back with pride on the many 1990 accomplishments that reaffirmed our position as an industry leader.

Not the least of these was being named recipient of the 1990 Falconbridge Innovation Award for development of the Inco Pressure Carbonyl Process.

A prestigious honor, the Falconbridge Innovation Award is presented by the Metallurgical Society of the Canadian Institute of Mining and Metallurgy.

It recognizes outstanding innovations which further the development and growth of the Canadian metallurgical industry.

In one of his final duties before moving to the Clydach Refinery in Wales, former nickel refinery manager Allan Bale accepted the award on behalf of the company at a luncheon in Hamilton.

Award honors many

Allan's presence at the luncheon was fitting. He has devoted nearly 20 years of his professional career to the carbonyl refining process.

Starting at Inco's atmospheric carbonyl nickel refinery in Clydach, Wales in 1966, he transferred to Canada in 1971 to assist in the start-up of the new pressure carbonyl process known as the Copper Cliff Nickel Refinery. He became manager there in 1985.

In accepting the award, Allan served as a representative for the countless skilled and dedicated Inco employees in research, engineering and production who participated and contributed to the research development and commercialization of this innovative process.

The carbonyl refining of nickel employs the same basic chemistry that its founders used more than 100 years ago. Ludwig Mond and Carl Langer found that carbon monoxide, at atmospheric pressure and temperatures between 40°C and 90°C, reacts with metallic nickel to form a colorless gas called nickel carbonyl.

They further demonstrated that the process is readily reversible by heating the nickel carbonyl to temperatures in the 150° Celsius to 300° Celsius range to yield pure nickel and carbon monoxide.

Allan Bale, former manager of the Copper Cliff Nickel Refinery and now at Clydach, holds the Falconbridge Innovation Award.

The first commercial scale refinery to use the carbonyl process was built in Clydach by the Mond Nickel Company in 1902. Inco acquired the carbonyl process through amalgamation with Mond in 1929 and still operates the refinery.

Today, Clydach produces up to 100 million pounds per year of extremely pure nickel pellets in a modern, highly-automated plant.

The basic simplicity and high efficiency of the carbonyl extraction concept long fascinated the Process Research group at Inco. In the late 1940s, comprehensive development work began to broaden the utility of the process.

The thrust of Inco's research was directed toward the technology of a carbonyl reaction at higher pressures.

In 1959, a pilot plant was commisioned at Port Colborne to study the possibility of higher pressure carbonyl extraction and refining on a tonnage scale.

The major advantage of the high pressure process was the ability to treat much cruder raw materials than was possible at atmospheric pressure. It also allowed for much more rapid and efficient extraction of nickel.

More than 25 years of research and pilot plant studies came to fruition in 1973 with the commissioning of the Copper Cliff Nickel Refinery. It was here the innovative Inco Pressure Carbonyl Process was introduced with a productivity and versatility far surpassing the basic process.

Technology helps all

The nickel refinery's IPC plant increased Inco's annual nickel refining capacity and had an immediate beneficial effect on existing smelting and refining operations. It simplified smelter and electrolytic refinery practices, improved metal recovery and centralized precious metals streams.

Today, the Copper Cliff Nickel Refinery is a state-of-the-art facility producing up to 115 million pounds of nickel pellets and up to 25 million pounds of specialty nickel powders a year.

The IPC process is a modern, novel technology that has furthered Inco's position of leadership in the world nickel market and the Falconbridge Innovation Award is testament to the talent and devotion of the many past and present Inco employees who made it all possible.

As Inco looks back on 1990 with pride, it can look to the future with confidence - knowing that past achievements are the best building blocks for future success.

Costa Rican school on its way

Third World school the dream of Mill mechanic

After three decades of community service work, Jim Ilnitski recognizes a worthy cause when he sees one. So Jim, a first-class maintenance mechanic at Frood Stobie Mill was quick to pitch in when he learned of local efforts to set up a school in Central America.

"I think it's a very, very worthwhile endeavor, to help people in the Third World," Jim says of the plans to set up an English-language elementary school in Costa Rica.

Jim first learned of the project in 1989, when he met John Ovens, a teacher at the Cecil Facer Youth Centre.

Dream come true

John had previously visited impoverished Costa Rica and "it was his dream to set up a school there," says Jim, adding he was taken by the teacher's vision.

"I believe that in Third World countries, a quality education is important, if these people are going to better themselves and help the economies of their countries," Jim says.

"I was also interested because this was a project for children," he adds. "I worked with young people for more than 20 years, with the Navy League of Canada, the army cadets and the sea cadets. And I'm involved with a youth camp program with my men's club at Holy Trinity Church."

Not long after their first meeting, Jim introduced John to the men's club at Holy Trinity. After hearing of the plans for the school, the church club "decided to give a few dollars of support - about $500," says Jim.

Jim also joined the board of directors of Canadian Academy International, the organization created to co-ordinate fund raising and the collection of goods and equipment needed for the Costa Rican school.

"I know quite a few people in town who I felt could help out, so I acted sort of as a resource person for John," he says. Jim and his wife Shirley also donated tools, chairs, string, hoses and many other items needed for the cause.

local commitment

Although he has since left the Canadian Academy International board, Jim says he and many other Sudbury area residents remain committed to helping the Costa Rican school open on schedule in February.

"There are still a lot of funds to be raised for the school and people here are still working on it," he says. "I expect that our men's club at the church will be helping out with this effort again."

Jim Ilnitski does the paperwork in campaign to launch Costa Rican school.

The board estimates that it still needs as much as $25,000 to get the school off the ground. And while the fund raising continues in Sudbury, John Ovens is busy recruiting teachers and students in Costa Rica.

Help needed

"We're looking for help from anyone who is interested," says Julie Henley, CAI's secretary-treasurer.

While her group still has its work cut out for it, there has been considerable community support for the project to date, says Julie, whose husband Eugene is a millwright at the Copper Cliff smelter.

"We've had an overwhelming response from everybody here," she says. "People have donated money, computers, an organ and even a photocopier. People in Sudbury have big hearts."

Those interested in making a donation or in volunteering to work on the project can call 566-9532 or 566-9429.

Institute charts high-tech uses for nickel

Nickel miners at the launching pad

What do space shuttles, submarines and fighter jets have in common with a pizza hotline in Toronto?

And why do they rely upon underground miners at Inco?

The answer is simple — nickel.

In one form or another, nickel has journeyed from beneath the earth to above the clouds, from the seas to the supper table.

Its unique qualities can be found in the aerospace and marine industries, architecture and even the landmark stainless steel phone number adorning the head office of Pizza Pizza Limited in downtown Toronto.

Charting a course for this versatile element is the job of Hans Schade, President of the Nickel Development Institute.

A native of Germany, Hans served as Senior Vice-President responsible for primary metals marketing with Inco Limited before joining the institute when it was formed in 1984.

Located in Toronto, he oversees a non-profit organization with seven offices on five continents supported by 16 nickel-producing members including Inco Limited.

"Until the mid-1970s Inco conducted all market development for nickel-containing material in the entire world," said Hans. "As competition increased and times toughened in the nickel industry, market development work had to be severely curtailed and nobody picked up the slack.

"In 1984, Inco and other nickel producers decided to establish the Nickel Development Institute to research, defend and expand markets for nickel on behalf of the entire indusry."

The Nickel Development Institute is entirely concerned with nickel applications, said Hans. Its job doesn't begin until the production process is complete.

The institute's foremost activity is educating people on the advantages of using nickel-containing alloys.

They played host to more than 100 engineering seminars highlighting new applications for nickel in modern technology and operate an elaborate technical support system with a library of more than 200 technical publications. They also boast a network of more than 50 technical consultants worldwide.

Their quarterly publication, *Nickel*, is a colorful, glossy magazine devoted to applications of nickel and its alloys. Some 30,000 copies are distributed free of charge in 87 countries including China, Russia and Cuba. "Our target audience," said Hans, "is anyone involved in the decision-making process."

The institute also serves as a catalyst to industry, entering into project partnerships with such natural allies as the chrome and stainless steel industries. "This pooling of brains and funds allows for projects of a larger magnitude," said Hans.

Another prime objective of the institute is to fight against substitution of nickel-containing materials with competitors such as aluminum, titanium and carbon-reinforced plastics.

"We have to keep nickel competitive in terms of cost, appearance and endurance," said Hans. "It's important that people realize the life-cycle value of certain applications such as stainless steel in architecture. In many instances it is wise to invest a little more up front because the product lasts. It needs no upkeep, no painting and no replacing."

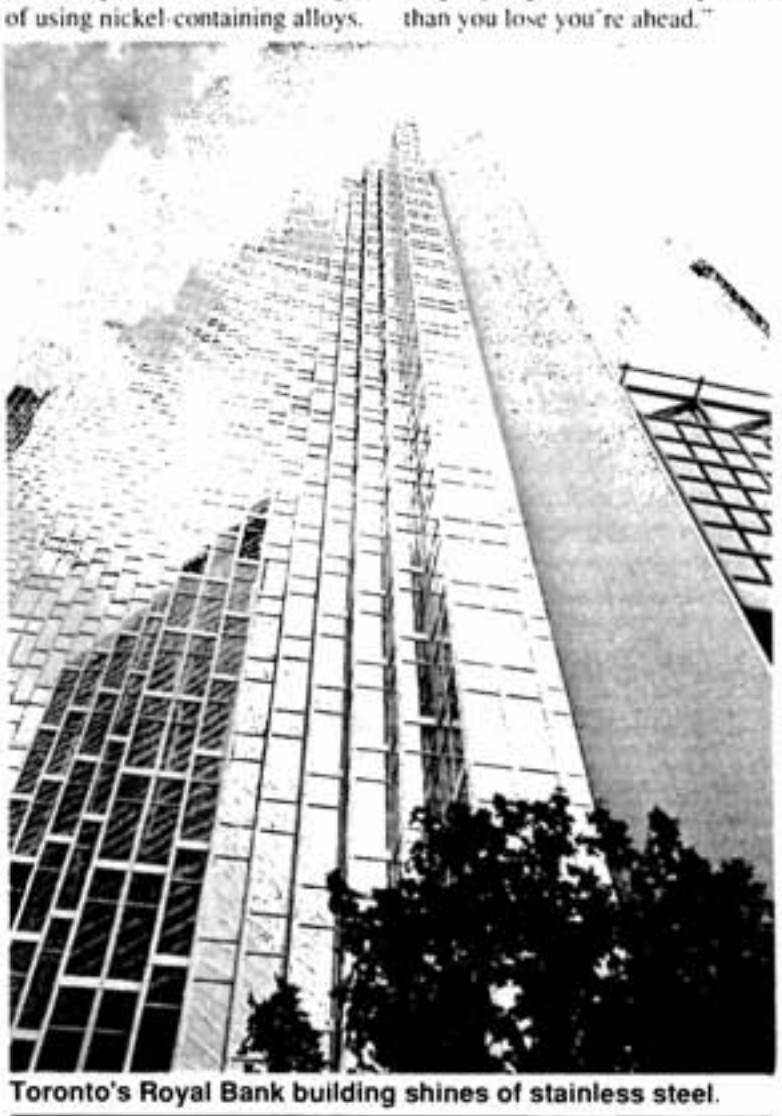
To prove his point, Hans refers to the shining example of the Chrysler Building in New York. Built in 1930, the building's roof of gleaming stainless steel has been cleaned just once in 60 years. Closer to home, a more recent example of stainless steel architecture is Science North on the shores of Lake Ramsey in Sudbury.

Stainless steels account for some 60 per cent of the first-use market for nickel but end-use markets are extremely diversified with "no single application having a market share larger than two per cent," said Hans.

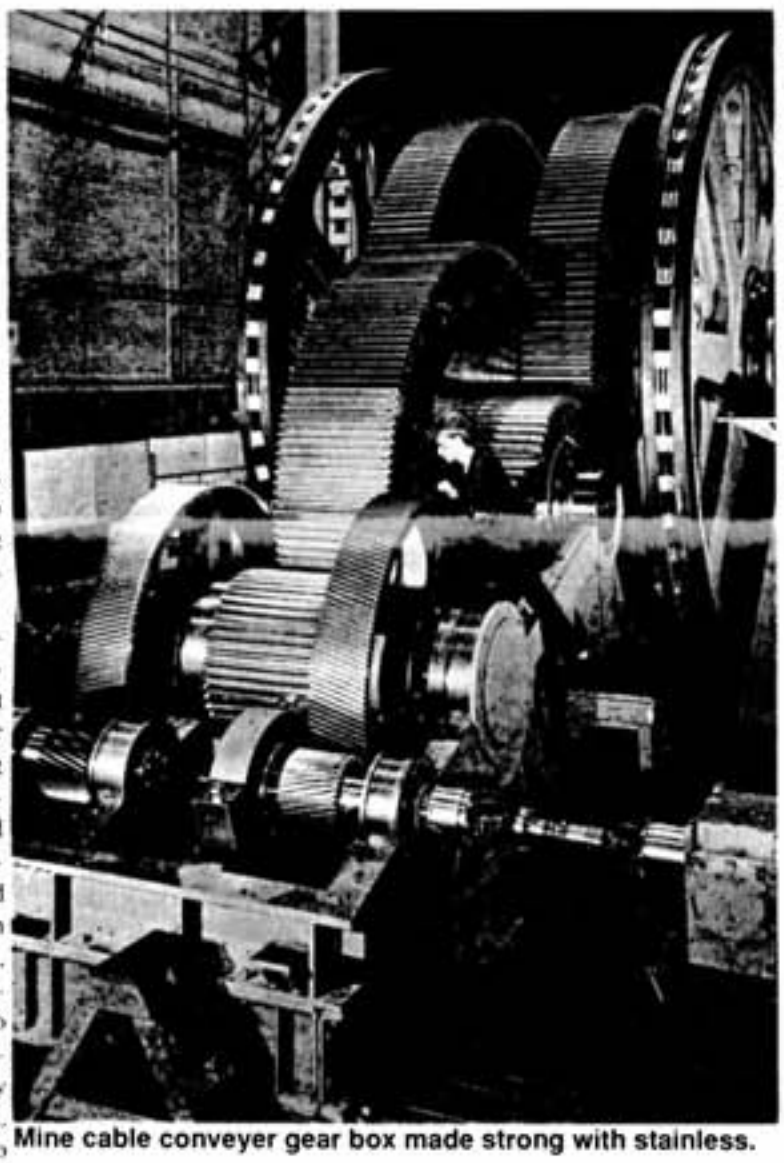
In Europe and Japan the use of stainless steel, and more recently colored stainless steel, in architectural applications is far more widespread than in North America. A number of European countries and Japan have stainless steel institutes or associations which promote the use of the product in the marketplace. As an example of their success, Hans cited the development of a new stainless steel roofing market in Japan.

"Our job is getting bigger," he said. "The competition is more aggressive and there is still a lack of knowledge about the advantages of using nickel-containing alloys.

"The market for nickel applications is in permanent change. You lose a few and you gain a few. As long as you gain substantially more than you lose you're ahead."



Toronto's Royal Bank building shines of stainless steel.



Mine cable conveyer gear box made strong with stainless.

Bank of China vault door made secure with stainless steel.

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Published monthly for employees and pensioners of the Ontario Division of Inco Limited. Produced by the Public Affairs Department. Members of the International Association of Business Communicators.

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TVX shareholders acquire Inco Gold

The Board of Directors of Consolidated TVX Mining Corporation announced earlier this month that its shareholders had overwhelmingly approved, with 99 per cent of the votes cast, the acquisition of all of the mining interests of Inco Gold from Inco Ltd.

The combined company to be called TVX Gold Inc. will have interests in six operating gold mines, one in Canada, one in the Unites States, three in Brazil and one in Chile as well as interests in three promising Canadian gold deposits.

TVX Gold Inc. trades under the symbol CVX. The symbol will be changed to TVX upon completion of closing documentation.

Overwhelming response to Inco/Falco seminar

Almost 40 Inco people will participate in a joint Inco-Falconbridge seminar on Delegating.

Both of the one-day sessions on Feb. 11 and 12 were filled by mid November, and a third seminar day had to be tentatively reserved for February 13 if interest warrants the extra day.

The seminars are to be held at the Northbury Hotel and Conference Centre.