

Jungle



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Heating with wood

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The Walden volunteer fire department is responsible for emergencies in one of the largest municipalities in the country. Virtually all of the 25 members are Inco employees.

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The year that was

The Triangle takes a look back at 1981, and some of the people and events that shaped the Company's history during the second year of the 80s.

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On the cover

This month celebrates the 30th anniversary of the copper flash furnace in the Copper Cliff smelter and our cover is an interior view of the furnace. The technology for the furnace was sold recently to Asarco. For more details see story beginning on page 16.

Bob Huzij's suggestion pays off BIG

Submitting a suggestion paid off, and paid off BIG for Bob Huzij, the latest recipient of the company's maximum employee suggestion plan award.

Bob, a first class garage mechanic in the component repair centre at the divisional shops complex, netted \$10,000 for designing a standardized, threaded insert with a flange for use on scooptram engines.

The threaded steel insert is used to restore stripped threaded holes on underground mobile equipment components.

Different types of inserts were tried on a trial basis, but none proved to be satisfactory. Some loosened and pulled out shortly after being inserted, while others were unable to withstand the torque. Welding the stripped threaded holes was also tried, but proved to be time consuming. The weld warped the housings, causing stress cracks.

The new standardized inserts are

threaded on the inside and outside. The outside of the insert has a standard coarse thread which gives holding power superior to other commercially available inserts. The shoulder on the insert ensures positive, secure seating of the insert.

No special tools are required to install or replace the inserts. They are made at the divisional shops complex at minimal cost.

Bob's suggestion is currently being applied to engine blocks, oil pans, front housings, cylinder heads and other components of underground mobile equipment and has resulted in substantial savings for the company in terms of salvaging equipment components.

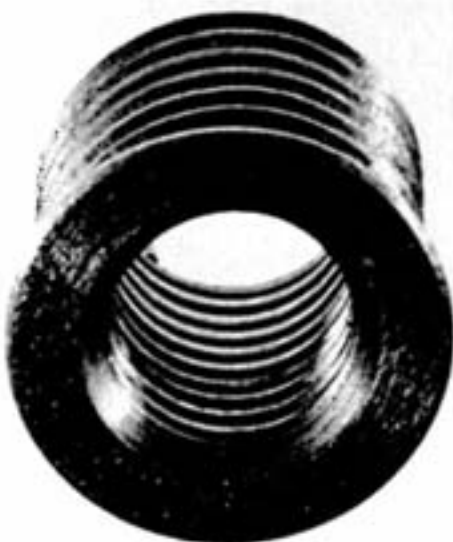
Bob thought that many engine components could and should be salvaged. "I've worked on these

engines for some years, and I've seen all different types of inserts, but none seemed to do the job," he commented. "I knew what was needed — an insert with a flange or shoulder on it that had holding power of its own."

Bob says he heard "rumblings" that his suggestion was a big winner. "I thought my suggestion had possibilities but I didn't expect it to be worth that amount."

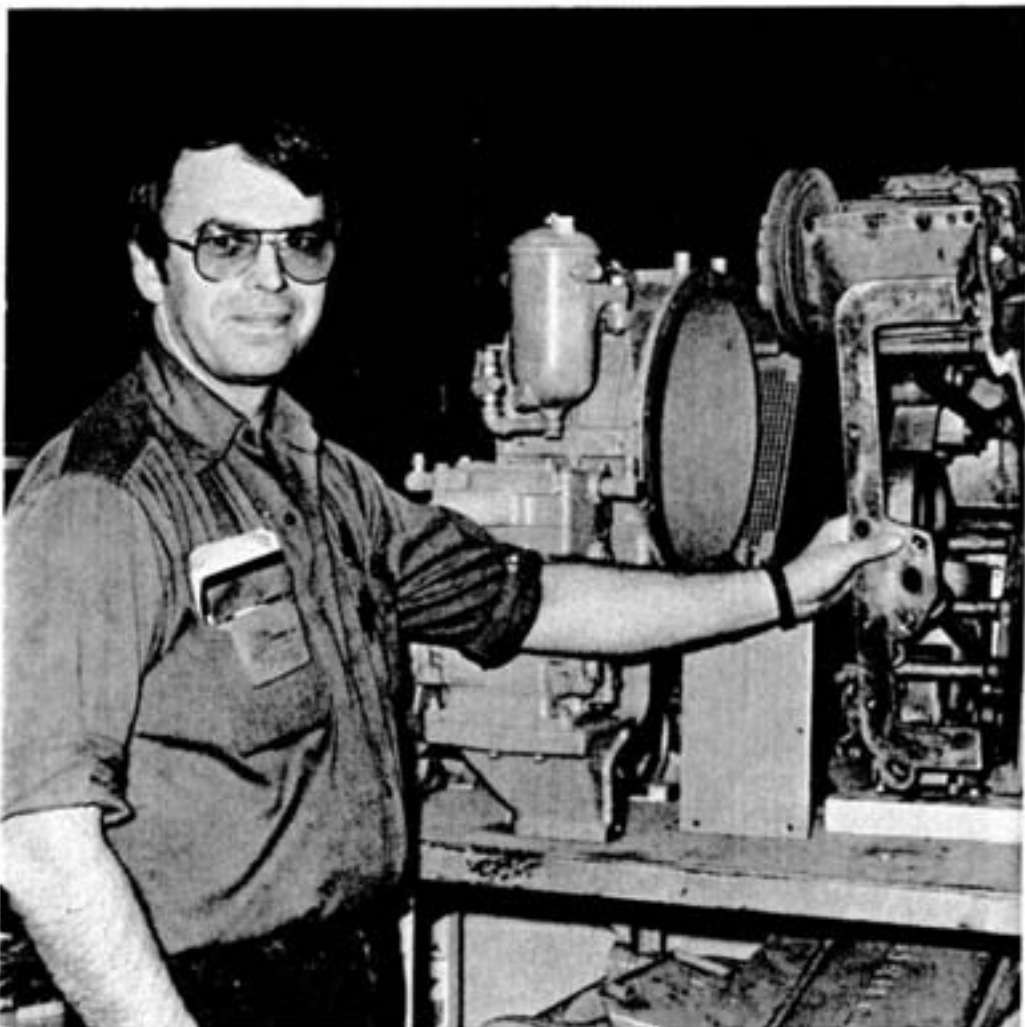
"Naturally, I'm very pleased," he added. "But all this still hasn't registered with me."

This was the third maximum employee suggestion plan award presented in 1981, making it a record year. Bob joins Guy Downey of McCreehy West mine and Ray Morin of the copper refinery on the major winner's list. Congratulations!



This is an example of the threaded steel insert designed by Bob Huzij.

Bob displays one of his inserts used in the front housing of a scooptram engine.



PRESSURE TESTING

Twice a year all the fire protection facilities at Inco's Ontario Division come under the close scrutiny of Barry Fox, a consulting engineer with International Risk Management, a firm that underwrites fire insurance policies. Checking such things as available water supplies and potential fire hazards, Barry is able to produce

a report that will help determine the type of insurance protection in which the company will invest.

During a visit to Creighton number three shaft pumphouse earlier this year, Barry tested the water supply at that property. Armed with a pitot gauge, he was able to determine the

flow of water through the pumping system in a gallons per minute figure. Barry conducted similar tests at divisional shops, Copper Cliff North mine booster pumphouse, the Copper Cliff copper refinery, Copper Cliff nickel refinery, Port Colborne, Shebandowan, Froid-Stobie complex and sulphur products.

Water cannons shoot jets of water over Barry Fox's head, left, as he reaches up with a pitot gauge to measure the flow of water. Stan Dutchburn, Inco's fire and accident insurance analyst, charts figures in the foreground while Jack Hall, chief fire inspector, nearest the wall and Jim Stefanko, a maintenance mechanic first class at Creighton number three, control the valves

With the readings he has obtained with the pitot gauge, Barry Fox plots a water flow curve on a graph with the help of Stan Dutchburn. Jim Stefanko watches in the background.



Family Album

Family Album Photos

If you are an Inco employee and would like your family to appear in the Family Album section of the Triangle please let us know by calling 682-5425, or send in your name to the address on the masthead.



Phil Boudreau, a welder specialist at the smelter, has been with Inco for 39 years. He and his wife Shirley are proud of their fine looking family, from left; Susan, Tom, Joan, Jim, Philip Jr., and Vickie. Jim is the only one remaining at home; the others have left the nest and all are married. Phil and Shirley do much travelling during their vacations, visiting friends and relatives in eastern Canada and the United States. Shirley enjoys knitting for her children and grandchildren, while Phil relaxes with a good book.



Irv Hrytsak, an 11 year veteran of Inco, is a supervising systems analyst in the computer services department. Irv, his wife Lillian, and children Rodney, 11, and Patty, 9, enjoy cycling and water-related sports. The children are keen swimmers all year round. Mom and Dad don scuba gear in the summer months and explore the depths of area lakes. They also devote their leisure hours to vegetable and flower gardening. Rodney and Patty attend L. G. Atkinson Public School.



Dave Mercer, a project analyst at the Port Colborne research stations, has worked at Inco for 15 years. Dave seems to be surrounded by lovely ladies, beginning with his wife Sharon, and daughters, back from left; Erica, 11, Michelle, 17, Claire, 15, and Nicola, 18. Family pastimes include a variety of sports - the girls particularly like horseback riding while Mom cares for quarterhorses in her spare time and Dad jogs and plays tennis. The family also enjoys travelling. They visited sunny Florida last year.



Wood-burning stoves

Has the high price of home heating sparked your interest in using a wood stove as a source of heat energy? What follows is a few do's and don'ts that may pave the way to the efficient, economical, enjoyable use of a wood stove in your home.

Before you join the rapidly swelling ranks of wood stove owners, you might do well to consider the practicality of investing money in a wood burning device.

Skip Hayden, a research scientist at the Canadian Combustion Research Laboratory in Ottawa, suggests that it would not make sense for anyone far from a wood supply to install a wood stove.

Cord wood can be purchased from several suppliers in the Sudbury area at a cost ranging from \$30 to \$50 per cord depending on the type of wood you desire.

For those who like to chop their own wood but don't own a wood lot, the Ministry of Natural Resources designates lots in the area each summer where fire wood can be chopped. Permits are available from the ministry for \$8.25. This allows a person to take out two 4 x 4 x 8 foot cords. Anything more than two cords, up to a limit of five, requires a permit costing \$19.60.

Anyone not willing to undertake the work and inconveniences associated with wood stoves should forget about owning one, Hayden recommends. In addition to acquiring, splitting and storing wood, one must devote part of a room to the stove and a lot of time to cleaning and maintaining the stove and its auxiliary parts for the sake of safety and efficiency.

A consumer's first consideration when buying a wood stove, Hayden says, is to make sure it is approved by the CSA and the ULC. It must meet the safety standards set down by these organizations.

It is important that a stove of the appropriate size is selected. "I'd look for a relatively small stove," adds Hayden. "A common mistake made by people is buying a stove too big for their needs."

"A person should get a stove with a good combustion system," adds Hayden, "one with a good side draft design having a vertical baffle open at the bottom or a good horizontal baffle stove." The baffle inside a wood stove brings smoke coming off a burning log back into contact with the flames. This burns additional hydrocarbons and prevents the build-up of creosote, a substance that could cause chimney fires.

Whether the stove is made out of cast iron or sheet metal really doesn't matter, Hayden insists, as long as it is built well and is air tight.

Where the stove is installed is also important. Put one in the basement or the rec room and you've put in another, less effective furnace. "It should be placed in the area where the family spends most of its time, like the living room," Hayden prescribes. This way the heat from

the stove is maximized and allows a family to save money by turning down the main source of heat, the oil or gas-fired furnace.

Many wood stoves are installed improperly without adequate clearances between the stove and walls. Hayden strongly recommends that you have your newly installed wood stove looked at by the local fire inspector.

One common mistake made by wood burning novices is putting too much fluepipe in a stove. A long pipe,

where smoke can easily be cooled, is a prime reason why people get creosote, he notes. "There should not be any more than four feet of flue before going to the double wall."

Stoking your stove with freshly cut wood is not only highly inefficient but also a source of creosote. Wood should be cut, split and air-dried for a year before it is thrown into the stove. Split wood burns much more efficiently.

The bottom line is that you must be unrelenting in the care of your wood stove. Warns Hayden, "You can

never be complacent about a wood stove. It's not like your automatic system. You've got to clean the chimney once a year. You should be looking at the pipes every couple of weeks. Once you do take it for granted you may be in disastrous trouble."

For those wishing to learn more about wood burning, Hayden suggests reading a book entitled "The Wood Burner's Handbook" by Gary O'Connor. It is available in French or English from A. Gonquin College, P.O. Box 250, Plamagenet, Ontario, K0B 1L0.

MATCHING GIFT PROGRAM

Inco's matching gift program makes it possible for you to double the effectiveness of your gifts to the university or college of your choice.

Your contribution to an eligible educational institution will be matched by the company (on a dollar-for-dollar basis), up to a total of \$2,000 for all gifts in any one calendar year. The minimum is \$25.

Participants are asked to fill out a form and mail it with their gift to the university or college of their choice. Upon receiving acknowledgement of receipt of the gifts, Inco will forward the institution a matching contribution. The company will also notify the employee that the contribution has been sent.

Forms can be obtained from Public Affairs Dept. in your area, or from Barbara Douglas, ext. 7689, Toronto Office.

When the Saints come marching in . . .

For almost 28 years, Sudbury's Blue Saints Drum and Bugle Corps has marched down city streets and across the country, collecting awards and winning competitions along the way. And without fail, regardless of the weather, members don their marching boots and top hats to entertain the crowds lining area Santa Claus Parade routes.

The Corps, with approximately 65 members, a third of which are children of Inco employees,

originated as the Sudbury Tech School Band in 1953. But as the school system changed, the band became a drum and bugle corps, open to all area children between the ages of 10 and 19.

Gerry Dionne, a planner in Garson mine's engineering department, has been the corps musical instructor since 1975. As a youngster, he was a Blue Saints member and presently instructs three of his own children in the Corps.

Says Gerry, no youngsters wanting to join the Corps will be turned away. However, belonging to the Corps is not an easy task. Every member is musically educated "from scratch" and must be prepared to work hard during the Wednesday evening and Saturday morning practices — 52 weeks a year. Although the Corps may appear glamorous and exciting, it really takes a lot of dedication and perseverance to be the best.

The hard work has certainly paid





off over the years, says John Hallows, employed at the Mine Rescue Station on Frood Road in Sudbury. Of the many awards presented to the Corps, perhaps the best remembered is one for Parade Champion won in the 1967 Calgary Stampede Parade. Then again, it could be the 1977 Canadian National Championship won in Scarborough. Regardless, the shelves of trophies and awards in the Corps office are evidence of a job well done, year after year.

"Our booster club (many of its members are Inco employees) works hard to raise funds for travelling and new equipment," says John. "They raise funds with bingos and bake sales. They also make the costumes by hand. And this year, they raised enough money to buy winter jackets so the kids would be warmer when they march in cold weather."

The Blue Saints Drum and Bugle Corps has several purposes. The first, of course, says John, is to entertain the public. But perhaps, more importantly, it helps to develop



Gerry Dionne, corps musical instructor, left, often provides individual instruction when it comes to new techniques. Here he coaches Wendy Rodgers while John Hallows looks on.

children into responsible adults, offers them music appreciation, national travel and an inside look at "junior show-biz". And of course, there is the pride in being part of such a well known Sudbury organization.

That pride, says John, was evident during the many local Santa Claus Parades this year. The group will enter five provincial competitions in Southern Ontario and the National Championships in Edmonton this year.



5 STAR SAFETY PROGRAM

"Safety is a commitment and you are people with a purpose." With these words Albert Magee, director of human resources and environmental services, stated the importance of the work to be done by Inco employees who received certification recently from the Industrial Accident Prevention Association as evaluators in the Five Star Program of the International Safety Rating System.

The adoption of the Five Star Program represents a new initiative in safety by the company. IAPA president Jim Findlay, a guest speaker at the graduation ceremonies in November, described the program as "a series of checks and balances on 21 elements relating to all aspects of safety and health in an organization." It is a system of evaluation that permits the analysis of

Inco employees concentrate on answering the questions on the Five Star Program final examination.

a safety control system to identify its strengths and weaknesses so improvements can readily be made.

The International Safety Rating system has its origins in the South African mining industry and was developed for use throughout the world by the International Loss Control Institute and the IAPA. By implementing this system, Inco, Jim noted, is "sharing in a world-wide rating system" accepted by thousands of IAPA affiliates.

Until now safety performance at Inco was measured primarily by frequency of injuries, stated Larry Banbury, superintendent of safety, smelting and refining, and a graduate of the Five Star Program course. "But statistics do not give the entire picture," he continued. "This new program measures the effectiveness of a safety control system as well as injury statistics."

One of the greatest advantages of incorporating this system at Inco, Larry cited, is that it permits organizations to compare the quality of their safety control systems with others, regardless of what industry they may represent. Without a standard system of measure such as the Five Star Program, this type of useful comparative analysis would be impossible. Now the company can evaluate the quality of its safety program against another mining company or other industry.

In all, 40 employees from Sudbury and Port Colborne, mostly safety foremen and general foremen, took the four day course given by IAPA instructors at the training and development offices at the Scotia Tower. With this number of certified evaluators on stream and several Inco plants and mines already assessed under the program, Larry said that the company was well ahead of everyone in the Ontario mining industry in this area.



From left, Jim Findlay, Albert Magee and Larry Banbury congratulate another Five Star Program graduate, Don Elliott, general foreman safety for the Copper Cliff nickel refinery, Copper Cliff copper refinery and I.O.R.P.



Darrel Shields, right, accepts congratulations from Albert Magee, director of human resources and environmental services, for successfully completing the IAPA's course on the Five Star Program based on the International Safety Rating System.

VOLUNTEERS TO THE RESCUE

When a call comes in, they're gone — like racehorses leaping from the gate.

These human racehorses are

members of the Walden Volunteer Fire Department, which consists of the number one, two and three stations located in Waters Township,

Whitefish and Lively respectively.

"We are responsible for any emergency in this municipality which covers 309 square miles, making it the largest in the country," explained Bill Fortin, chief of the Lively fire station.

The Walden Volunteer Fire Department could be amusingly termed the House of Inco Representatives, since approximately 90 per cent of the volunteers are Inco employees.

Number three station - Lively division, in particular, has the highest representation of Inco employees. Twenty-three of the 25 members are employed at various Inco mines and plants in the Copper Cliff-Walden area. Number three station is responsible for covering the most densely populated area in Walden.

The high Inco representation, along with the fact that many members from the three stations grew up in the same locality, makes for a close, family-like organization, according to Bill Fortin. "There's a lot of camaraderie in the department," he said. "We all get along harmoniously."

Added Jack Parry, a member of the Lively fire station and an electrician at the Copper Cliff nickel refinery: "We all enjoy getting together once a week. It's a social outing for the men and at the same time it's an opportunity to talk fire fighting business and sharpen up on our fire fighting skills."

The weekly session is held at each fire station. The members perform first aid and extensive fire fighting duties. Many of the Walden volunteers attribute their skills to the first aid and fire fighting training they received at Inco.

Barry Johnston, right, goes through a circle check on the firetruck as Dennis Tucker, an anode foreman at the copper refinery, records the results.



Barry Johnston, left, a slope leader at Creighton nine shaft, helps John Thompson, a maintenance mechanic at the smelter, roll up the hose properly.



The two-hour session involves the careful inspection and the safe and proper handling of fire fighting equipment. Fire fighting apparel, hoses, ladders, rescue saws, fans, foam-making machines and portable electric generators are just a few of the items to be scrutinized. And of course, so is the most familiar and essential piece of fire fighting equipment — the fire truck.

Each fire fighter is responsible for conducting a detailed fire truck inspection known as a circle check.

Fluid levels, oil or fuel leaks, loose wires and connections are checked under the hood. Lights including signal lights are turned on and off in the cab.

The truck's exterior is also carefully examined. The side mirrors, front wheels, headlights, licence plates, fuel tank and truck frame are checked for any problems. Mud flaps, tarps, all doors, clearance, mirror, rear signal and tail lights are tested for any defects.

The motor is started to see if all gauges, head lights and beams, front and back signals and exhaust system are operating properly.

The cab is given a final check. Air and fuel gauges, wipers, horn, siren and radio are tested. Mirrors are adjusted and cleaned as are the windows. The emergency flashers, lights and brake and emergency equipment such as flares and first aid kits are inspected.

The firemen themselves are carefully tested. They undergo frequent practical and written tests to assess their fire fighting skills. They must be properly licenced to operate the firetruck and must be physically fit to endure the rigors of the job.

As far as veteran firefighter Bill Fortin is concerned, the Walden Volunteer Fire Department has passed all the tests with flying colors. "It's the best fire brigade in the country," he unequivocally stated.

"I don't worry about fire because we have such a great group of firemen. I'm very confident they can do the job and do it right."

Mike Carroll, left, a garage mechanic at Creighton nine shaft, and Jerry Nadeau, a loco and shovel fitter at the loco shop in Copper Cliff central maintenance, attach a nozzle to the fire hose.



Walter Hayduk, a garage mechanic leader at Copper Cliff North mine, tests a rescue saw used for cutting through wood, cement and metal.



Over SHE GOES

It certainly didn't rank with the smelter's 500 foot red brick stack in magnitude but the demolition of the 54 foot boiler house chimney at Garson mine in early August marked the passing of one of the oldest stacks at Inco.

Hans Dittmar, a planner at Garson mine, says that the stack's brick work, laid during the 1930's, "was

getting kind of bad." A decision was made to demolish the structure and replace it with a stainless steel stack.

The demolition by Canadian Custodis Company took one shift to complete. "They notched the bottom just like you would to fell a tree," Hans explains. Hooked to a payloader, the stack was pulled down after the notching process had been completed. The job was supervised by Gerry Carriere, maintenance

safety foreman, and Ray Landry, a maintenance foreman at the mine.

As a precautionary measure, water lines buried nearby were covered with a couple of loads of sand to cushion them against the blow of the falling stack. Hans says the demolition was done safely and quickly without any problem. The shattered remains of the old stack were buried on a landfill site on the Garson mine property.

An unseen piece of machinery pulls a cable attached to the top of the stack to bring the chimney down.



The crane buries its plunger into the base of the stack preparing it for the coup de grace.





"Fantasy Christmas" is theme of Inco entry in Sudbury's Santa Claus Parade

Waving Merry Christmas are the characters who participated in the Inco entry in the Santa Claus parade. Under all those costumes are, from left, Melissa Laborne, Lori Mott, Holly Dopson, Shannon Ellis, Chris Mustalar, Nina Naumenko, Carman Hewshell, Jennifer McMaster and Valerie Armstrong. Dressed as Mr. and Mrs. Santa are, Derek Johnston and Maniva Armstrong.



The Inco float.



Chris Mustalar as "Big Bird" brings a smile to the face of this youngster.



The second part of the Inco entry was this miner's hardhat driven by Mike Peters.



Phil Lindsay, superintendent of the reverb furnaces, left, and Homer Carr, general foreman of the copper flash furnace, inspect the furnace's interior through the porthole.



The interior of the copper flash furnace.

A FLASHY ANNIVERSARY

There's double cause for celebration!

This month, the Ontario division of Inco Metals Company is celebrating the 30th anniversary of the copper flash furnace at the Copper Cliff smelter.

And Inco Tech, responsible for marketing the technology and technical services of Inco Metals Company, in conjunction with the Ontario division's smelter and engineering department, has been successful in marketing the technology for copper flash smelting.

The technology, though not new, has been available for licensing from Inco Tech for only about three years. A licensing agreement was recently reached with Asarco Incorporated, a major American copper producer.

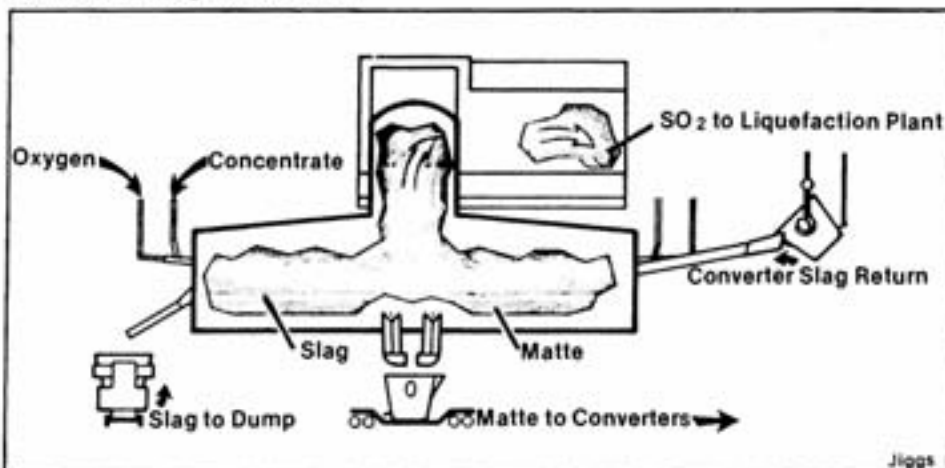
Development of Inco's oxygen flash smelting of copper concentrates began at Copper Cliff in the mid-1940s. The first commercial unit was commissioned in 1952. After years of extensive testing and improvement by Inco personnel, the copper flash furnace has proven to be "the best furnace for copper smelting in the world," commented Bob Neal, manager of capital projects, smelting and refining, and formerly manager of the smelter.

The copper flash furnace has been designed to provide high energy

Continued on Page 18.



Gary Cull, process foreman in the furnace department, operates the controls in the flash furnace control room as Carlos Landolt, superintendent of process technology, centre, and maintenance foreman Cornel Miglioranza look on.



efficiency combined with good metal recovery. It is currently operating at a throughput of approximately 1,300 tons of copper concentrate per day, but has reached continuous throughputs of up to 1,800 tons per day.

The furnace measures some 24 feet wide and 80 feet long and consists of a steel outer shell enclosing an arched roof, walls and bottom, all of which are constructed of basic refractory.

The term "Inco Copper Flash

Copper, except for a minor amount lost in the slag, and iron sulphides, collect at the bottom of the bath as matte. The matte is tapped at the side of the furnace and sent to the converters for further processing.

Silica, contained in the flux and concentrate, combines with the iron oxides to form a slag which collects on top of the bath. It is skimmed at one end of the furnace directly into slag pots and discarded.

The low volume of off-gas is passed through a settling chamber, which cools the gases by radiation

Once heated, the furnace operates autogenously, meaning it operates without the addition of conventional fuels such as coal, oil or natural gas, provided it is fed continuously with dry concentrate and oxygen in correct proportions. Heat is supplied by the continuous oxidation of the sulphur and iron contained in the copper concentrate with tonnage oxygen. The oxygen used in the process is relatively inexpensive to produce and readily available from on-site oxygen plants.

The furnace is simple to operate, according to Tom Antonioni, superintendent of operations at the smelter. "There is no need for sophisticated, computerized mechanisms," he explained. "It's operated by simple push-button manoeuvres. However, the operation can be readily adapted for computer control."

The compact size of the furnace is also an asset, Tom added. "The ability to put large quantities of concentrate into a relatively small crucible makes the furnace very attractive."

The furnace has proven to be environmentally acceptable, according to Bob Neal. "It's a quiet smelting operation producing a low volume of high strength SO₂ gas. This small volume of gas is easy to collect and treat."

As well, refractory consumption in the flash smelting process is low. "The flash furnace can operate for a period of three to four years without major refractory repairs," Tom Antonioni said. "This, of course, contributes to the low overall cost of maintaining the furnace on a day-to-day basis."

Some 30 years of developing, testing and improving have culminated in the first licensing for the Inco flash furnace technology. Expectations are high for additional licensing arrangements with copper producers world-wide who have already shown extensive interest in this Canadian-developed Inco technology.

Furnace" refers to the smelting process in which predetermined amounts of oxygen and feed, consisting of copper sulphide concentrates and sand flux, are introduced simultaneously into the furnace. The oxygen readily reacts with part of the sulphur and iron in the concentrate. Combustion occurs in a brief flash and sulphur dioxide and iron oxides are formed. The feed smelts in suspension and falls in molten droplets of matte and slag which form the furnace bath.

and collects some of the flue dust for reintroduction to the furnace. Further cooling and gas cleaning are achieved by water scrubbing and an electrostatic precipitator before delivery to the sulphur products division for liquefaction.

And just what makes the copper flash furnace so attractive? It is energy-efficient, utilizing oxygen and a portion of the sulphide contained in the concentrate. Conventional fuel burners are required only for pre-heating the furnace.



Smelter and engineering personnel had a hand in the development of the flash furnace technology. Here, from left; Peter Chesterman of projects concept engineering, Bob Neal, manager of capital projects, smelting and refining, and Tom Antonioni, superintendent of operations at the smelter, review a booklet on the furnace's development.

1981

That Was The Year That Was



Sudbury Science Centre blasts off.

Garson Mine wins mine rescue competition.



Inco contributes to the purchase of the CAT Scanner in a big way.



Inco 1981 . . . A company and its employees in retrospect . . .

A year of dialogue . . .

On April 22, Charles F. Baird, chairman and chief executive officer of Inco Limited, addressed the Sudbury Regional Council. Mr. Baird reiterated his predecessor's (J. Edwin Carter) message of the company's commitment to the Sudbury district. "We intend to stay in the nickel business and our Sudbury operations

will continue to be our principal source of production," he repeated. "We are here for the long haul . . ."

OSHE and ASHE committees continued to meet on a regular basis in 1981, providing an effective forum for company and union representatives to discuss matters dealing with and initiating improvements to safety, health and environmental conditions. Seminars conducted by Jack Fletcher of the Total Loss Control Training Institute

over the year helped members of committees to a more effective operation of their groups through an enhanced communication process.

Employees were asked to participate in hundreds of safety workshop sessions that reviewed safety performance. During these sessions they offered input into establishing methods of improving safety. These and other efforts led to a great improvement in safety performance in 1981 over 1980.

A year of Inco in the community . . .

Throughout 1981 Inco continued its support of a variety of community clubs, groups, organizations, institutions and projects whose focus ranged from medical to recreational and from educational to cultural.

In the realm of medicine, the company continued its series of significant contributions totalling \$400,000 that went towards the purchase and installation of the \$950,000 computed axial tomography scanner or CAT scanner for the Sudbury General Hospital. A sophisticated diagnostic tool, the CAT scanner allows Sudburians to receive the comprehensive, accurate evaluation that they at one time could get only in other large cities.

The medical facilities available to the population of Northeastern Ontario were greatly enhanced by the construction of a 15 bed Critical Care Unit at the Sudbury Memorial Hospital. Inco Metals Company contributed \$25,000 to the CCU which will offer previously unavailable special care to intensive care patients such as coronary or burn victims.

Early in the year the Regional Municipality of Sudbury announced the undertaking of the most exciting project in the history of Northern Ontario, the Sudbury Science Centre. Inco, reaffirming former company chairman J. Edwin Carter's pledge to continue "our support of significant diversification efforts that will



Creighton mine's 80th anniversary open house attracts hundreds of visitors.

Towards a safer working environment — OSHE and ASHE committees.



strengthen the economic base of Sudbury", made the largest donation in Canadian corporate history, a commitment of \$5 million towards the capital cost of the Science Centre. The company previously funded a \$200,000 feasibility study of the project that will give northerners a unique monument to science and an attraction that will rival science centres anywhere on the continent.

The Lasalle Sports Complex was the site in May of Inco's Grass Roots Baseball, a two day baseball learning experience that attracted hundreds of young enthusiasts.

Dick Rockwell, head baseball coach at Lemoyne College in Syracuse and his staff, specialists in teaching youngsters baseball fundamentals, put on a seminar for dozens of area coaches and clinics for boys and girls that emphasized developing basic skills, batting, fielding and catching.

Grass Roots Baseball was well received not only by the young participants and local coaches but also by parents who viewed the program as a worthwhile and educational experience for their children.

Throughout 1981 Inco supported numerous causes from the donation of \$60,000 towards the construction of the new Sudbury Theatre Centre to the purchase of a \$2,600 Visual Tek machine for the Canadian National Institute for the Blind. Recreational and competitive people enjoyed company sponsored sports events such as the Inco Loppet, the Inco Regatta and the Inco Cup ski series.

A year of change . . .

Change assumed different forms at Inco in 1981. A five month operation saw the Garson mine headframe shed its old galvanized steel cladding and a new stainless steel sheeting put in its place. Meanwhile the old boiler house chimney met a more sudden fate as a tug from the

wrecker's crane brought it to a crumbling heap on the ground.

The Copper Cliff smelter complex skyline was altered slightly when contractors began the demolition of the historic, 500 foot, red brick stack. Using pluggers and sledge hammers, workers dismantled the top 100 feet of the venerable structure.

It was a change in venue when, in May, several departments of Inco moved from the Inco Club and the general office in Copper Cliff to new

quarters in the Scotia Tower in downtown Sudbury. Wint Newman, president of the Ontario division, in announcing the move said: "These new facilities in downtown will certainly be of major importance to us as a company in offering employee-related services and conducting business in the community. They also serve to represent our interest in an on-going commitment to the Sudbury community."



A pair of cross country ski buffs push towards the finish line of the Fifth Annual Inco Loppet.

The smile of victory graces the faces of the R.D. Parker Shield champions from Levack mine.



As test results were being compiled it became evident to company energy experts that more company vehicles should be converted to run on propane. Clean burning and relatively inexpensive (compared to gasoline), propane, some officials estimate, represents a potential annual saving of \$200,000 if 160 Inco vehicles were converted. In 1981 the number of propane powered vehicles at Inco grew from two to 13.

A year of firsts . . .

History was made on the morning

of April 12, 1981 when the NASA space shuttle Columbia blasted from Cape Canaveral into a 54 hour orbit of the earth and the first manned landing of a space ship. Nickel, mined and refined in Sudbury and formed into heat resistant alloys by Huntington Alloys, a division of Inco Limited, was used extensively in the construction of the stub winged spacecraft and its engines. Nickel alloys with their properties of good resistance to stress, corrosion and heat, fracture toughness, fatigue strength and weldability helped usher man into a new era of space travel.

Back on earth, Inco employees and their families experienced their own significant firsts. The tradesmen at divisional shops manufactured a new, 22 ton, Inco designed, mild steel trunnion for a roaster kiln in the Iron Ore Recovery Plant, a first for them and the company.

Sons and daughters of Inco employees at Chelmsford Public School went underground for the first time at Coleman mine in January. The immenseness of the operation and the sound of drills greatly impressed the visitors. It gave many an insight into their fathers' work and a sense of pride for their way of making a living.

The first crop of cool season vegetables, leaf lettuce and spinach, using only the sun and air being expelled from Copper Cliff South mine as a source of heat, was seeded and successfully grown at the prototype greenhouse located near the mine. The experiment proved that the prototype greenhouse offers citizens of northern mining communities the potential for obtaining reasonably priced, good quality, fresh, salad-type vegetables year round.

While the agricultural department was working on the second course, the boys in the plate shop were after the main course in their first annual fish derby held at the Monetville Lodge on Lake Nipissing. A couple of big ones were reeled in and a few stories about the ones that got away were spun out in a highly successful event.

A year of celebration . . .

Twenty-four Inco miners were part of a group of 62 hardrock miners from throughout the province that received the first underground hardrock miners' certificates of qualification in September at a ceremony at the Sheraton Caswell. It marked the official recognition of mining as a profession. Miners completing the requirements of the new modular training program along



Charles F. Baird comes to town.

The Inco cup brings out the best in young Northern Ontario skiers.



the guidelines established by the Ministry of Colleges and Universities will be entitled to a certificate and province wide recognition of their skills.

The 1,450 employees at Creighton mine celebrated that operation's 80th anniversary in August. Employees, past and present, their families, friends and anyone interested were invited to the complex for an afternoon of tours, displays and refreshments to mark the occasion.

It was a banner year for maximum award suggestion plan winners. Taking home \$10,000 for their ingenuity were Ray Morin of the Copper Cliff copper refinery, Robert Huzij of divisional shops and Guy Downey of McCreedy West mine.

Other noteworthy events in 1981 included; Levack's victory in the Parker Shield competition, Garson mine's win in the mine rescue competition, the excellent work of two agricultural department employees, Nina Naumenko and Cathy Laing, of administering first aid to the victim of a car accident on a lonely stretch of Northern Ontario highway and the announcement of Inco Metals Company as the Employer of the Year by the Ontario Association for the Mentally Retarded.

operated jointly by Inco and French interests.

At Port Colborne a new 28,000 square foot electro cobalt refinery began taking shape. The building is slated for completion in the fall of 1982.

Workmen were busy throughout 1981 at the Copper Cliff mill, site of the pyrrhotite rejection facility. Costing an estimated \$14,000,000, the process will increase the amount of pyrrhotite which can be separated from the ore prior to smelting. It will achieve a further seven per cent reduction in emissions bringing the

total containment of emissions to seventy seven per cent.

The memories of soldiers who fought and died in three wars this century were honored at Remembrance Day ceremonies throughout the district on November 11th. Veterans were joined by many civilians in their salute to fallen comrades, the men and women who died for the cause of freedom.

Company employees laid wreaths on behalf of Inco at ceremonies in Sudbury, Val Caron, Copper Cliff, Capreol, Levack, Lively, Coniston, Garson and Chelmsford.



Piscatorial splendor during the plate shop's annual fishing derby.

A year of growth . . .

The Inco family at Copper Cliff grew as the company acquired CIL Inco's three sulphuric acid plants and a liquid sulphur dioxide plant. CIL will continue to market and distribute the sulphuric acid and liquid SO₂. The new arrangement will not only allow greater operating efficiencies in the plants but also will enhance the reliability of supplies to CIL customers.

Five Inco employees and their families left the frigid northland in January for the tropical climes of New Caledonia in the South Pacific. They had accepted offers of employment at a chromite mining facility at Tiebaghi, New Caledonia

Youngsters learn the basics during Inco's Grass Roots Baseball.



PEOPLE



Visitors clamber out of the tunnel that will form the Science Centre's 2 billion year old basement during the Tunnel Trek.

Tunnel trek

Over 1,000 people attended the Sudbury Science Centre's Tunnel Trek in late November. Led by Science Centre director David Pearson, the visitors were given a tour of the tunnel that will lie under one of the unique snowflake shape buildings and the construction site on the surface.

The tunnel, officials say, will give visitors a feel for the fascinating geology of the Sudbury area.

Once the centre has been completed the tunnel will lead to a cavern that will serve as a theatre complex. The Tunnel Trek marked the end of the first phase of construction and the commencement of the second.



Lieutenant-Governor John B. Aird autographs Rita Flynn's programme as Tom Peters, Inco agriculturist, looks on.

Legion 50th

The R.L. Beattie Branch 224 of the Royal Canadian Legion celebrated its golden anniversary at the Italian Club in Copper Cliff in December. Special guests for the evening were the Lieutenant-Governor of Ontario, Mr. John B. Aird.

Inco Loppet

Don't forget to enter the Inco Loppet on February 14. Deadline for entries is February 1.

Guiding awards

Twelve year old Tammy, daughter of Leonard Kutschke, a stationary engineer at number one station in Copper Cliff, was presented with the All Round Cord, which she earned on completion of the Girl Guide program.

Fourteen year old Karen, daughter of Don Milne, a scooptram operator at Copper Cliff South mine, received the Canada Cord after successfully completing the Pathfinder program. Receiving a cord makes one "feel kind of special," said Karen. "You have proven to yourself that you can do anything you have set your mind to."

Both cords must be earned by completing numerous challenges in four general areas; the home, camping and outdoors, the world and the community.



Girl Guide Tammy Kutschke, left and Pathfinder Karen Milne were alight like the candles that adorned the table at a ceremony held at St. Stanislaus Church in Copper Cliff in November.

PEOPLE



Tony Marolt, a first class machinist at divisional shops, lowers a gleaming, newly machined and assembled thrust roll bound for Indonesia.

Urgent request

Answering an urgent request for the nickel smelter in Indonesia, the tradesmen at divisional shops machined and assembled a pair of 2,600 pound thrust rolls needed for the Top Blown Rotary Converters.

Using bearings and shafts provided by the Copper Cliff

nickel refinery, the men of divisional shops were able to turn out two thrust rolls in only four shifts. The thrust rolls were flown immediately to Indonesia upon completion.

Divisional shops will manufacture two more thrust rolls for Indonesia for delivery in January.

Archives donation

The Sudbury Area Industrial Relations Archives was the recipient recently of 13 boxes of resource materials from Inco Metals Company. The materials dug out of company files include newspaper clippings, periodicals, submissions and pamphlets.

They will be stored at SAIRA at Laurentian University where they will be available to people interested in studying or researching various aspects of labor-management relations in the Sudbury area.

The goals of SAIRA are to collect materials which are often unique historic and cultural resources; to identify and organize these materials; to make them available to researchers dealing with this area of inquiry; and to preserve these materials for future use.

Fitness facts

Walking for one mile consumes about the same amount of calories as jogging for one mile.



Poring over documents donated by Inco to SAIRA are, from left, **Morry Brown**, director of public affairs, **Marlene Gibson** of SAIRA, **Eric Fenton**, superintendent of industrial relations, **Dr. Henry Radecki**, director of SAIRA, **Bob Boudignon**, a coordinator in accounts payable and **Joanne Jackson** of SAIRA.

Recent Staff Appointments

Gayle Akerman, cost analyst, division comptroller, Copper Cliff
Raymond Allison, mine foreman, Garson mine
Allan Burns, plant protection officer, plant protection, Copper Cliff
Gary Chicquen, mine general foreman, Frood mine
Raymond Deredin, mine foreman, Frood mine
William Ferris, analyst, process technology, Copper Cliff
Gerald Funk, specialist assistant, Copper Cliff central shops
Marcel Gaumont, rockhouse foreman, Stobie mine
Gregg Gavin, industrial relations assistant, employee relations, Copper Cliff
Tien Hoang, senior process assistant, Copper Cliff smelter
David Hough, senior analyst, Clarabelle mill
Roy Joeveer, safety foreman, Copper Cliff nickel refinery
Andrew Kerr, section leader, process technology, Copper Cliff

Ralja Knight, senior timekeeper, Levack mine
Leo Landrault, senior analyst, process technology, Copper Cliff
Robert Leduc, survey party leader, mines engineering, Frood mine
Robert Lepage, mine general foreman, Coleman mine
Garry Merkley, safety foreman, Frood mine
Bertram Pilatzke, safety foreman, safety, Garson mine
John Platzer, office supervisor, process technology, Copper Cliff
Garnet Smith, mine foreman, Frood mine
Stan Snider, general foreman safety, Copper Cliff
Thomas Tamml, planner, mines engineering, Frood mine
Alberto Vignuzzi, senior draftsman, engineering, Copper Cliff
Zbigniew Waszczylo, analyst, process technology, Copper Cliff
James Wilson, maintenance foreman, Clarabelle mill

PEOPLE



Inco horticulturist **Ellen Heale** chats with, from left; Ontario Hydro rep **Ross Snider**, AMPCO members **W.J. Nichols**, **John LeMay** and **Wayne Shepherd**.

AMPCO meeting

Over 40 members and guests of the Association of Major Power Consumers of Ontario, including representatives from Inco Metals, recently attended a special general meeting in Sudbury to discuss changes in the Ontario Hydro rate structure. "The meeting was held to bring the members up to date on Hydro's new rates

structure," explained John LeMay, manager of Inco's central utilities, and vice-chairman of AMPCO. "It was basically an educational type of meeting, to inform members of those changes."

During the two-day meeting, members and guests toured facilities at the Clarabelle mill, Copper Cliff smelter and copper refinery, while the others visited the underground



At Little Stobie mine, AMPCO members from left; **Gunther Tippelt**, **Jeff Davies** and **Al Thom** receive some assistance with their mining gear from **Marilyn Harper** of central utilities.

facilities at Little Stobie mine.

At the dinner on the first day of the meeting, Inco horticulturist Ellen Heale presented members and guests with an overview of the company's revegetation program, the underground greening project at Creighton mine and the prototype greenhouse project at Copper Cliff South mine.

AMPCO consists of 42 of

Ontario's major electricity-intensive industries at some 200 locations. The association permits the industries it represents to speak with a unified and well-informed voice on the subject of electricity.

The association maintains a continuing dialogue with Ontario Hydro, the Ontario Energy Board, the Ministry of Energy and AMPCO's member companies.



Gary Hurteau owes his sight to his proper use of safety glasses.

Wise Owl

Gary Hurteau, a summer student employed with the transportation and traffic department, is one employee who appreciates the value of safety glasses.

Only a few days before returning to school, Gary was hammering a tie plate into position when a piece of slag flew up and shattered the left lens of his safety glasses, gaining membership to the Wise Owl Club.

Quoting Gary, "I've learned from this experience."

Popular sports

Since 1970, downhill and cross country skiing have become the fastest growing recreational activities in Canada. An estimated 500,000 people ski the slopes and trails of over 230 ski areas.



Fabricating a shell that became a miner's hard hat for the annual Sudbury Santa Claus parade are, from left, **Paul Rainville**, **Atto Ahopelto** and **Elnari Rautialinen**, all of the agricultural department.

Float Work

Inco Metals Company entered a pair of floats in Sudbury's annual Santa Claus parade held in November. The larger float depicted a scene that kept with the theme of

this year's parade, a fantasy Christmas.

The smaller entry was a miner's hat powered by a golf cart. Both were constructed by employees in the agricultural department.

PEOPLE



Governor-General **Ed Schreyer** congratulates **Andy Lefebvre** on his promotion to corps sergeant-major.

Dedicated Service

The year 1981 was a memorable one for Andy Lefebvre, a craneman at the Copper Cliff smelter.

Andy was honored by two government officials for his years of dedicated service with St. John Ambulance. This past June in Toronto, Andy was presented with a service bar to compliment his service medal by John Aird, Lieutenant-Governor of Ontario, in recognition of the some 20 years he has devoted to helping those in need of

first aid.

In an investiture ceremony in October, Governor-General Edward Schreyer presented Andy with a medal promoting him to corps sergeant-major and a serving brother of St. John Ambulance.

"It was thrilling to be at the ceremonies and to receive these awards," Andy commented. "I feel very honored."

Andy's interest in assisting the injured began years ago when he took his first Inco first aid course. Soon he was

attending the courses on a regular basis. "What I learned at Inco, I've been able to apply to my work with St. John Ambulance," he said.

The volunteer work not only involves tending to the injured, it also involves teaching individuals, students and organizations such as boy scouts and girl guides the basics of first aid.

"I enjoy working with people," Andy added. "I get a great deal of satisfaction helping those in need."

Wheelchair given by DWC

Recently the Disabled Workers Committee of Local 6500 officially presented Ernie Robichaud, a drill fitter at Stobie mine and his wife Fern, with a wheelchair purchased through the Dominion Store Cash Register Tape Plan.

Since its formation in 1979 the DWC has been active in assisting members of the local

who require devices such as wheelchairs and hearing aids.

The committee collects Dominion Store cash register tapes deposited by employees and interested people in general at boxes in Inco operations throughout the district and the Steelworkers Hall on Frood Road. Dominion donates \$1 for every \$475 in tapes returned by the DWC.

Allan Ross, a track boss at Stobie mine, has the distinction of having collected more tapes for the cause than anyone else.

In addition to the other aids it has bought, the committee has acquired six wheelchairs for local families. Pointing out that \$179,000 worth of tapes is needed to buy one wheelchair, the committee is asking the public to help in its work by contributing its Dominion Store slips.



Attending the Disabled Workers Committee ceremony were, from left, **Ron McDonald**, president of Local 6500, **Doug Jeffrey**, secretary-treasurer of DWC, **Allan Ross**, **Ernie Robichaud** and his wife **Fern**, **Eric Kossatz**, manager of the Frood-Stobie area and **Ron Dupuis**, chairman of DWC.



Watch the birdie

Photographer John Harquail and David Long spent two days in October shooting pictures of employees at various parts of Inco's Sudbury operations for the company's 1981 annual report to the shareholders.

The theme of the photos was "Inco — a team effort". Employees at Levack west and the Clarabelle mill made ideal subjects for Messrs. Harquail and Long.



Five Inco employees who helped organize the annual Alpini banquet are, from left, **Dario Toppazzini**, **Romeo Santi**, **Danilo Petovello**, **Giuseppe Leon** and **Giovanni Taglialegna**.

Alpini banquet

The Alpini Association of Sudbury held its annual banquet in late October at the Caruso Club with over 400 guests attending from Thunder Bay, Montreal, Toronto, Hamilton, Ottawa and Windsor. Formed 11 years ago, the Alpini is an organization which carries on the traditions of the alpine soldier of Italy. Based in Milan, the Alpini have branches throughout the world.

PEOPLE

Completing the cottrell work are, from left, **Tarcisio Blondi, Richard Chartier, Larry Mulligan, Steve Rewega, Bob Emond, Bernie Seguin** and welder **John Piche** (sticking his head out of hole.)

Cottrell repair

Two months after they started a major repair to the number four cottrell in the FBR building at matte processing, Joe Goegan's maintenance crew put the finishing touches on the job in October.

The high voltage assembly within the cottrell had

collapsed taking itself and the low voltage assembly to the bottom housing of the cottrell.

The repair work included replacing both the high and low voltage assemblies, repairing the cottrell housing and baffle plate and motorized damper louvres as well as changing the design of the rapper cabinet assembly.

Lively visit

In a response to a request made by Lively District Secondary School, grade 12 commercial students from that school were given a tour of

Inco's general office in Copper Cliff. The object of the tour was to give students some insights into the kinds of technology used in office work today.



A group of Grade 12 commercial students from Lively District Secondary School watch key punch operators from left **Sandra Walsh, Evelyn deWitt** and **Cecile Sutherland**, key punch information into an IBM 3742 machine.



Members of Levack transportation welcome Levack Public School students and teachers.



Jacques Genereux's maintenance crew at McCreech West mine has gone one year without reporting a medical aid injury. It's the second year in three years that Jacques's crew has earned this distinction. Members of the crew are, back from left: **Alex Brosseau, Roly Aumont, Kevin Sexton, George Williams, Luc Bisailon, Jerry Malleau, Dan O'Byrn, Peter Korolow**; front from left: **Emile Tranchemontagne, Dan Fortin, Ron Tranchemontagne, Archie Anderson, Ambroise Desbarbleux, Stan Stead** and foreman **Jacques Genereux**.

Kindergarten visitors

When you were four or five years of age, did you ever see a real locomotive up close, and go for a ride on it? Pre-kindergarten and kindergarten students from Levack Public School did just that.

At the request of teachers at the school, Inco's Levack transportation department conducted a mini tour of loco 117 and provided a brief ride for the some 35 students. Brakeman Robert Mitchell, locomotive engineers Doug Burton and Hector Leblanc, conductor Harold Scott, plant protection officer Lionel

PEOPLE

Plucky lady

In the September, 1980 issue of the Triangle, we featured a story entitled "A solid gold effort from a plucky lady". In 1981 this plucky lady plucked up some more medals to add to her already large collection.

Sixteen year old Barb McInnis, daughter of Wendall McInnis, a surface laborer at Frood three shaft, received a commemorative crest and won two bronze medals, one in the 100 metre run and one in the 60 metre run, at the Disabled Children's Invitation International Games 1981 held in Newcastle, England last August.

Barb was one of 19 Canadian disabled athletes who took part in the five day event. Some 260 youngsters, ranging in age from 13 to 16, travelled from various countries, including the US,

Barb McInnis displays medals.



South Africa, China, Kuwait, Ireland, Belgium and Peru to compete in the games.

It was the first time Barb had competed in disabled games outside Canada and, according to her, "it was a great experience." Not only did Barb gain some medals, she also gained many friends. "I had the opportunity to meet many different people and learn about their backgrounds and countries. I write to several of them.

"I also saw different ways people train for these competitions," she added, "and that helped me in my training."

The athletes took time out during their visit to do some touring and sightseeing. Barb was impressed with the country. "If another game was held there, I'd love to go." At the rate Barb is winning medals, she probably will.

Inco Loppet

Don't forget to enter the Inco Loppet on February 14. Deadline for entries is February 1.



Engineer **Hector Leblanc** shows students the loco.

Rodrigue and transportation foreman Leo Sabourin were tour hosts.

"It was a small, educational field trip," explained Leo Sabourin. "The children seemed to really enjoy it and we did too."

The children also had the opportunity to talk to a good friend of the Levack transportation department, by the name of Santa Claus. Santa talked to them from high in the sky by two-way radio which was hooked up from his sleigh to the loco.

Only lady

During Inco's recent Quarter Century Club celebrations, Clara Cameron from the accounts payable department had the distinction of being the only woman inducted into the Club in 1981.

"It was one of the biggest thrills I've had," quipped Clara. "I was dancing on air all night."

Clara started at Inco at the Copper Cliff Hospital and can remember working with Dr. Hazelwood. "It was a busy place to work with lots of interesting things happening," she stated.



Tom Newburn, assistant controller, pins corsage on **Clara Cameron** while Clara's daughter **Vickie** looks on.

How to choose cross country skis

1. Cross country skis for light touring should be about 30 centimetres taller than your height.
2. Each ski edge should combine to form one straight line when both skis are squeezed together.
3. A sheet of paper should slide easily between the centre of the ski and the floor.



Ray Lachance, left and Roger Zazulak split \$2,960



Tony DiNobile \$2,145



Real Laroche and Henry Landry split \$770

Suggestion plan awards

- \$10,000** **Robert Huzij** of the **component repair center** has become the third employee to win the company's maximum suggestion plan award this year. See page 3 for details.
- \$2,960** **Roger Zazulak** and **Raymond Lachance** of the **Clarabelle mill** put their heads together to come up with a method of prolonging the life of the G/W pump suction liners that involved putting a thin latex rubber under the snap ring. This lessened wear on the case and suction liner, significantly reducing the number and repair on all major pumps (for suction liners) at the mill.
- \$2,145** The biggest suggestion plan award ever to be paid at the **Port Colborne nickel refinery** went to **Tony DiNobile** for the new method he devised for repairing stainless steel mandrels that reduced the amount of scrap and returned more sheets to service. He recommended cutting only 10 to 12 inches off each good sheet rather than a 20 inch section as well as trimming the remaining bad sections. This resulted in increased salvageable material from the sheets, providing sizeable material savings that more than compensated the slight increase in labor costs.
- \$770** Two more individuals at **Port Colborne**, **Real Laroche** and **Henry Landry**, scored in the suggestion plan derby in a big way. They outlined a procedure whereby floor and unit tank drains and small FRP pipe fittings could be made from scrap materials rather than purchase new ones. The adoption of their plan proved that savings could be made in the purchase of new materials and it eliminated the long wait for the delivery of the purchased items.
- \$720** There was no way of repairing the oversized pilot holes in all FL 714 scooptram engines with out wearing away starter pilot holes in the oil pans. A trio at the component repair centre, **Pat Beaudry**, **Steve Dominick** and **Robert Huzij**, suggested that the edges of starter pilot holes be built up with aluminum weld and they be rebored to the proper dimensions with an old starter housing. This solution extended the lives of starters and ring gears, cut down on damaged oil pans and downtime for scooptrams.
- \$560** Strengthening the bearing arrangement on the 15 ton short blocks for the No. 2 casting building crane by using a heavier thrust bearing on at the top and replacing the radial bearing with a brass sleeve was proposed by **Ellis Rogers** recently retired from divisional shops. His idea saved on the replacement of bearings, hooks and crossheads and the labor costs associated with their installation.
- \$420** The third award winning suggestion from **Port Colborne** this month came from **Roger Laport**. He set forth the idea of sandblasting the surface of anode bars instead of using a grinder to prepare it for welding contacts. The new procedure resulted in labor savings and an easier work method.
- \$350** **Armand Leger** and **Marv Fraser** of the **Copper Cliff mill** advised that U-bolt brackets used for spigotting on Jaco lines be replaced by wood stave bands. Savings in material and labor costs resulted from the implementation of this suggestion.
- \$295** **Reginald Hibi** of the **Copper Cliff copper refinery** earned some extra cash by recommending the replacement of solenoid valves and quick exhaust valves on the ODS pump with stainless steel valves and air actuators, something that will decrease maintenance and downtime.



Robert Huzij, left, Pat Beaudry, centre and Steve Dominick split \$720



Roger Laport \$420



Armand Leger and Marv Fraser split \$350

Due to the large number of suggestions awarded this month, only those suggestions of \$150 or more are listed below.

- \$245** To overcome the problem of resistors on surface locomotives failing prematurely after long periods of idling, **Murray Jalsich** of **Levack** proposed the installation of porcelain insulators between resistors. This he said, would, and did, prolong the life of resistors thereby saving the purchase of new resistors and the labor costs associated with their replacement.
- \$235** **Ronald Brunette** of **Frood mine** submitted the idea of fabricating a rubber kit for diesel locomotive brake valves instead of replacing the entire valve. The rubber kit performs the same job as the inlet valve allowing the same brake valve to be used. Locomotive downtime is minimized and money is saved on the purchase of complete valves.
- \$200** Some time ago **Douglas Moore** of **Stoble mine** offered a suggestion to install a hanging staging below the skip loading area as a safer, more efficient means of changing and repairing shaft guides. He was awarded \$150 for the safety merits of the device. Since then the award has been reviewed and Douglas received an additional \$200 for the labor saving aspects of the hanging staging.
- \$150** **Jean Leduc** and **Ernest Stelmakowich** of **Frood mine** found the bumpers bolted to the frame of eight-ton GE locomotives difficult to remove due to the constant impact to which the bumpers are subjected. They proposed a pocket be built to hold the bumper without the need for bolts. This was recognized as a labor saving innovation.
- \$150** Another **Frood mine** employee, **John Warenda**, made the suggestion plan award parade by simplifying the way of installing trolley line brackets that saved on labor and material costs.
- \$150** Because he found that thermodynamic steam traps did not work efficiently in low steam pressure installations, **Rob Rosset** of **South mine** suggested that they be replaced with float thermostatic steam traps which cost less, require less maintenance and use less steam.
- \$150** In order to prevent jacks on two boom paramatic jumbos from dropping and being damaged, **Gordon Byrnes** of **Coleman mine** offered the idea of installing pressure check valves. This reduced damage to jacks and downtime for the jumbos.
- \$150** **Brian Duff** of **Coleman mine** designed a nipple for connecting hoses in stope headers that not only saved on costs but also proved safer than the device it replaced.
- \$150** **John Stos** of **South mine** wanted to have matching remachined scoop brake shoes and linings stocked together to reduce downtime and costs.
- \$150** **Guy Miron** of **Levack mine** developed a simple tool that allows employees to dump mucking cars in a safer manner.
- \$150** **Edward Coupai** of **Levack mine** suggested installing a solenoid switch on the hoistroom air dryer that took the place of some costly switches and valves.
- \$150** At the **Copper Cliff smelter** **Gerald Sabourin's** lifting device that aids in changing the speed reducer provided a safe solution to a potentially hazardous situation.
- \$150** **Roy Ruddy** of **divisional shops** found that the lock ring holding the piston on the shaft of a particular machine kept breaking and caused damage to the piston and cylinder. His cost saving measure involved replacing the retaining ring which holds the piston onto the shaft with a SKF No. 08 lock nut and washer.

6th Annual INCO LOPPET

VOIMA ATHLETIC CLUB

Sunnyside Road

February 14, 1982

SHOTGUN START
11 a.m.

Pancake Breakfast
9 a.m.



ENTRY FORM

Please Print

Name

Address Telephone

I wish to enter
30 Km (2 x 15 km)
15 Km
10 Km
5 Km

I hereby release INCO METALS COMPANY, the Northern Ontario Ski Division, the Voima Athletic Club, agents, officials or anyone connected with the INCO Loppet from any loss, injury or damage whatsoever incurred from my participation in, or presence at, said Loppet.

Signature of Participant

Parent's Signature, if under 18

\$1.00 entry fee per person to be enclosed. Registration is limited to the first 600 entrants.

ENTRY DEADLINE - FEBRUARY 1, 1982

Mail entry to: Public Affairs Dept., Inco Metals Company, Copper Cliff, Ont. POM 1N0