

INCO TRIANGLE

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Sharing the Loot

(STORY ON PAGE 10)



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Don M. Dunbar, Editor.

EDITORIAL OFFICE COPPER CLIFF, ONT.

What Is This Creep Asks British Editor

Noting that the famous series of nickel alloys are invaluable for their resistance to "creep," the editor of Nickel News, sister publication of the Triangle in the British Isles, poses and effectively answers the question "What is this 'creep'?"

If you take any piece of metal hang it up by one end and hang a heavy weight on the other end, one of two things will happen. Either, the piece of metal will break or it will be made slightly longer by the pull of the weight. Loading the piece of metal with the weight is a very simple way of applying a stress to it. The increase in the length of metal takes place as soon as the weight is attached beneath it.

If we load our piece of metal in this way, but are careful not to load it so much that it breaks, and leave it for a long time — say a year or so — we will find that it has grown very slightly during that time, even though no new load has been applied. This expansion of metals under a steady stress is called creep. At room temperature, the effect is a very small one and is only important for very soft metals such as lead. Examination of church roofs which have been in position for two or three hundred years often reveals that the lead covering near the ridge is thinner than it is near the eaves, the lead having crept downhill under the stress of its own weight.

Recently, with the development of aircraft jet engines, the materials used for the turbine blades and some other parts are called upon to operate satisfactorily at high temperatures — around 700-800°C. — when subjected to great stresses. Under these conditions creep becomes of great importance as quite small dimensional changes may cause inefficiency and even disaster; not too strong a word to explain what would happen if turbine blades "grew" until they hit the casing when rotating at several thousand revolutions per minute!

Nimonic alloys were developed specially to overcome these difficulties and that's why we call them "creep-resistant" alloys.



VISITOR FROM PORT COLBORNE

When he visited Copper Cliff recently Bob White of the P.M. Lab at Port Colborne looked over a picture layout of the new members of the Quarter Century Club, seeking names or faces he might recognize from the days when he worked in the smelter laboratory before he moved south to join the nickel refinery staff.

Skating Club Into An Active Season



Judith King, Sharon O'Neil, Heather Murray and Maribeth Tyers are among the large and enthusiastic membership already well launched on a season of increased activity at Copper Cliff Skating Club. A live-wire executive headed by W. G. Beaver as president and C. Quinn as vice-president with Mrs. F. J. Neville as secretary-treasurer has a full program rolling. A senior dance club has been started on Sunday afternoons and plans for a big carnival are underway. Miss Joyce Salo is the club professional and Jack Gladstone is assisting with the teaching of the junior members.

Andy's Retired, You'd Never Suspect It



Retirement on Inco pension has by no means slowed down the life and times of Andy Montgomery. Matter of fact, he told the Triangle, what with calls on his carpentry skill both at home and round about, plus visiting relatives and friends, plus trying to beat his wife at cribbage, plus a couple of dozen other things, he often yearns for the peace and quiet of his old job.

Born near Renfrew and a true son of "The Valley", Andy was hired by Clarence Buck as a town carpenter at Copper Cliff in 1935.

for what was termed "seasonal work". He says he has had a good long season and is now headed for his Indian summer. Prior to joining Inco he was located at Warren with the provincial highways department for 27 years.

Andy was wed in 1917 to Violet Spencer, an Ottawa Valley girl who was born on Calumet Island. One of their sons, Alvin, works in the mill at Creighton and the other, Bill, a former smelterman at Copper Cliff, is employed by Austin Airways.

MAGNETIC SWEEPERS

New magnetic sweepers are rapidly gaining favor in industrial plants as important maintenance aids and safeguards to employee safety. They assure foolproof pick-up of metal chips, filings, nails, tacks and other stray metal which have long been a source of injury to plant personnel. Equipped with

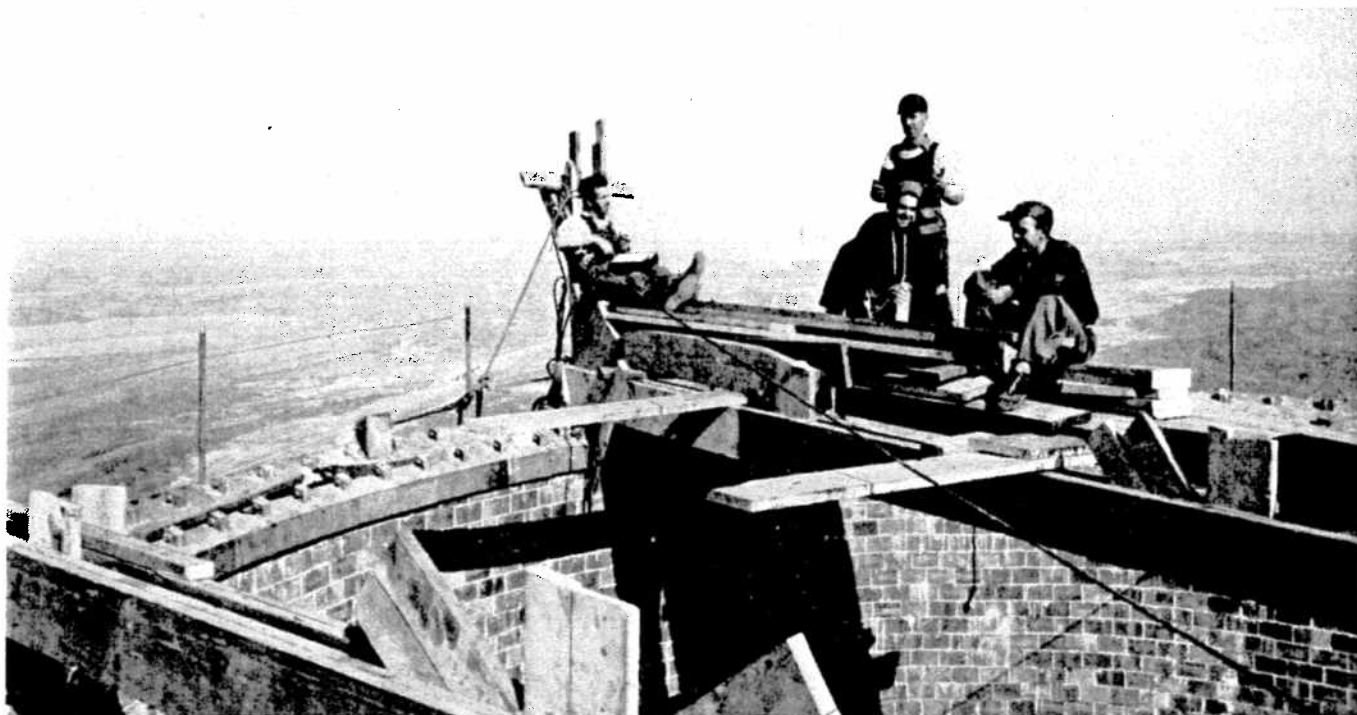
powerful aluminum-nickel-cobalt-iron alloy permanent magnets, these sweepers require no electrical connections and pull in iron and metal particles from a wide radius.

Canada was the first country in the world to adopt the standard time system that is now in universal use.

INCO FAMILY ALBUM

You'd never guess from all these smile-lit faces that summer was in the sere and yellow leaf, and winter just around the corner. Looking as if it's spring the whole year 'round are: (1) Mr. and Mrs. Bill Bilows (Levack Mine) with Patricia, 2½, and Debbie, 4½. (2) Mr. and Mrs. E. Radzikowski (Port Colborne Refinery) with Karen, 6 mos., and David, 2. (3) Mr. and Mrs. W. Hay (Frood-Stobie) Douglas, 6, Ruth Anne, 14, Mary Jane, 18, Bill, 15, David, 12, Bob, 16 and Sandy, 7. (4) Mr. and Mrs. Ed. Beaudry (Copper Refinery) with Susan, 5, Tom, 17, Beatrice, Noreen (Mrs. Don Frattini), Freddy, 13, and Danny, 18 mos. (5) Mr. and Mrs. Norm Ceppetelli (Copper Cliff Smelter) with Jane, 1½, Brian, 8½, Bob, 7½. (6) Mr. and Mrs. Carl Silander (Murray Mine) with Carolyn, 14. (7) Mr. and Mrs. G. Lachapelle (Creighton Mine) with Sandra, 8, and David, 1½.





Lunch-time in the clouds is the scene here atop the 615-foot iron ore plant chimney. Enjoying their noon-hour siesta are Ray and Andre St. Arnaud, Skip Hulcoot, and Benny Nann. Dwarfed in the distance are two of the Copper Cliff smelter stacks. The last two of the five timber trusses that supported the temporary cover over the stack have still to be removed by the crew. Covering the rim of the shell can be seen part of the stainless steel coping which has a total weight of 9,000 lbs., and jutting up at intervals around the rim are some of the Inconel rods in the elaborate system to protect the chimney from damage by lightning.

Temporary Cover Gone, Big Stack All Ready to Go

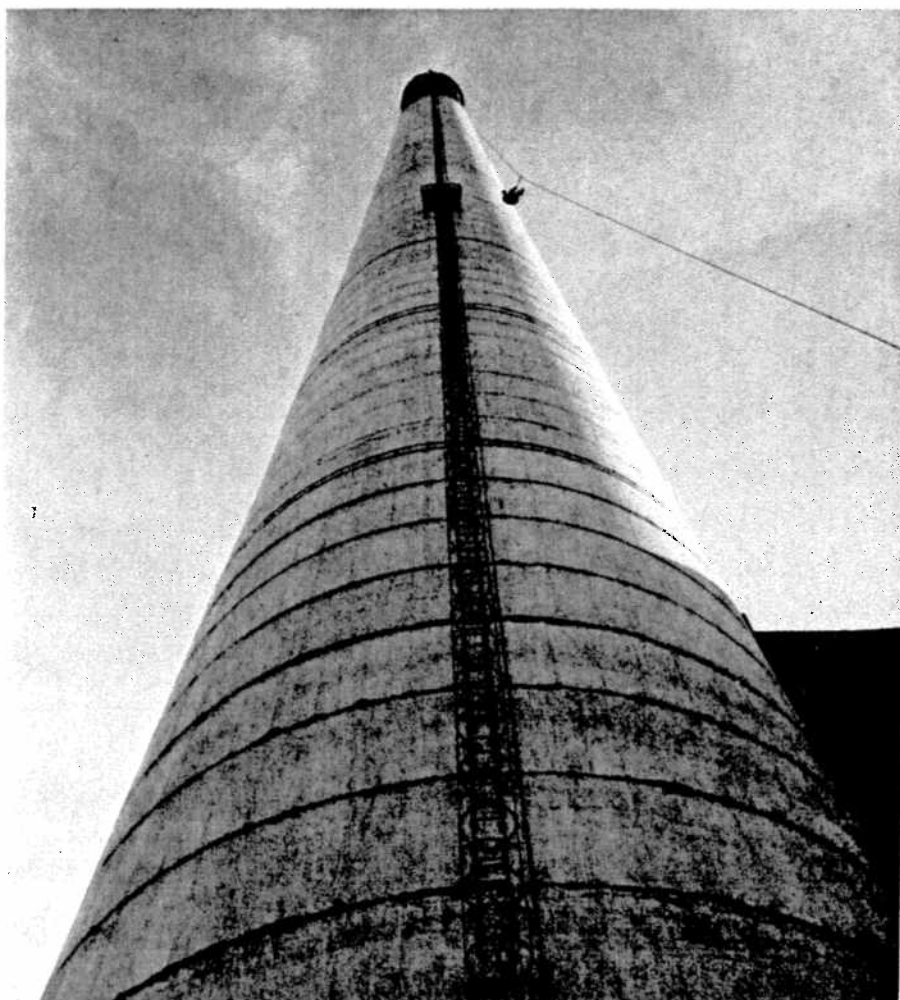
A crew of cloud-dwellers from the Canadian Custodis Co. took the temporary cap off the British Commonwealth's highest smoke stack and declared it fit and ready for business as Inco's new iron ore plant at Copper Cliff went into the final stages of construction.

With a nonchalance that drew gasps from other workmen going about their tasks at the new plant, the sure-footed sky-walkers methodically removed the wood trusses and aluminum sheeting which had protected the drying lining of the stack from the elements since it was completed last summer. Piece by piece the temporary cover was lowered 637 feet to the ground. The job took about a week after the rigging was erected.

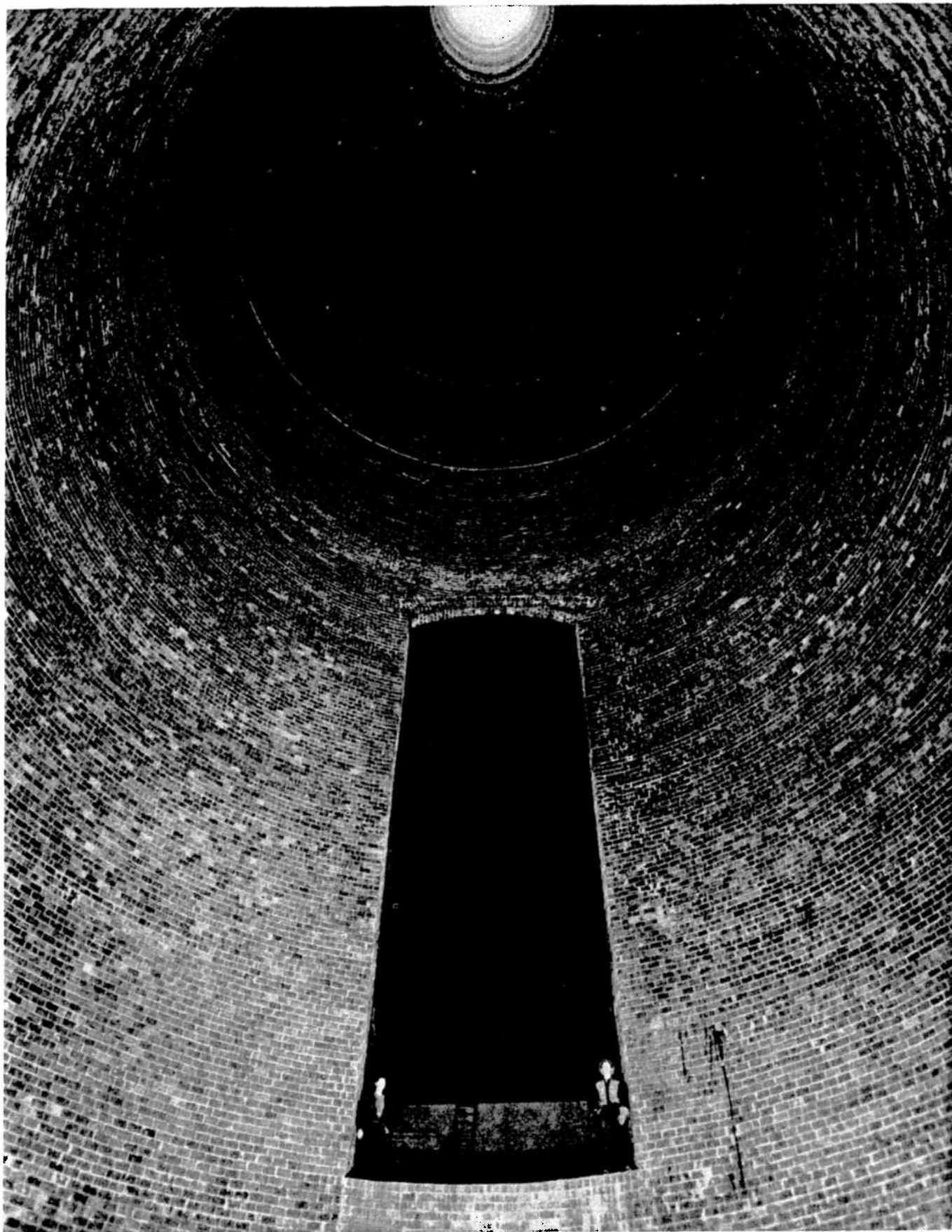
First move in the operation was to rig up the gin pole and hoisting system and then erect the scaffold around the rim of the stack. Joe Smolinski, a 40-year-old youngster who has been in love with climbing ever since he could shinny up the apple tree in the backyard of his boyhood Toronto home, marched the 500 steps up the side of the concrete giant with scarcely a pause for a breather. The trip took him an even 10 minutes.

The gin pole in place and a cable strung from the 4-cylinder double drum gasoline hoist in the shack far below, scaffold brackets were hung on the stainless steel band installed for the purpose near the top of the stack when it was built. Up came planks and these were laid as a floor for the scaffold, after which the work of dismantling and lowering the segments of the cover went right ahead. A steel barrel was attached to

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"Riding the ball" to the top of the stack is wiry little Joe Smolinski, who can climb the 615 feet of ladder in 10 minutes without even puffing.



Cathedral-like is the inside of the great chimney at Inco's Iron ore plant as seen by the wide-angle camera lens. The two men, Steven Pinkus and Tom Browne, stand in the opening of the main flue, 50 ft. high and 17 ft. wide, through which smoke from the new plant will travel on its way to be diffused in the upper atmosphere. What looks like a series of rings reaching to the top of the stack, one every 50 ft., are the 12-in. corbels that were poured as part of the concrete shell to carry the brick lining. There is 15,500 cu. ft. of insulation, weighing 95,000 lbs., between the concrete shell and the brick lining.

Four Generations of an Inco Family



At the diamond wedding celebration of Mr. and Mrs. Wm. Hanson of Levack this unusual picture was made of four generations of an Inco family. On the left is the great grandfather, Wm. Hanson, who was born in 1870 and retired on Company pension at Levack in 1947. Beside him is his son Roy, a welder 1st class who was born in 1897, worked at Levack first in 1915, was employed at the Sellwood Mine from 1916 to 1926, and rehired at Levack in 1937. Next is the grandson Milton, born in 1926, who is a caretaker at Levack, where he has worked for Inco since 1944, and last but by no means least is the great grandson, Terrance, son of Milton, born in Levack last year. That Levack must be a pretty good place to live, judging by the way people stick around there.

Grand Old Couple 60 Years Married

Completing 60 years of happy marriage Mr. and Mrs. Wm. Hanson of Levack celebrated their diamond wedding anniversary in September surrounded by members of their family, friends and relatives.

A spry and sprightly 85, Mr. Hanson has been in the northland since well before the turn of the century, and before his retire-



ment worked at both lumbering and mining. He was employed for many years at the old Sellwood iron mine north of Milnet, now a ghost property, and from 1926 to 1931 worked in the rockhouse at Levack Mine. At the age when most men are ready to take life easy he hired on as caretaker of the school at Levack and for 13 years kept things in apple pie order there. He became an Inco pensioner in 1947.

Both he and Mrs. Hanson, who is 80, were born and raised at White Lake, near Arnprior, Ont., where they were married on September 10, 1895. Their son Roy is a welder at Levack, and one of their three daughters is Mrs. Archie Taylor, also of Levack.

Congratulations are extended from the entire Inco family to this grand old couple, with best wishes for continued good health and happiness.

These Attitudes Cause Accidents

The National Safety Council has published 11 accident attitudes they found in the course of research into accident causes.

They are:

Selfishness: The "me first" attitude to blame for lack of care or consideration for others.

Self-importance: The feeling that "I'm too big for rules — they apply only to the other fellow."

Over-confidence: "I'm good, I don't have to be careful. I know it all. Never had an accident yet."

Chance-taking: The "live dangerously" philosophy, often involving great belief in luck. "It can't happen to me."

Fatalistic Attitude: "You're here today and gone tomorrow. You go when your number is up and what you do won't make any difference."

Hostility: "I'm not going to be pushed around."

Competitiveness: Trying to get ahead — to beat the other fellow.

Unconscious Self-destruction: Psychologists have frequently noted this attitude — a need to injure oneself.

Exhibitionism: Showing off.

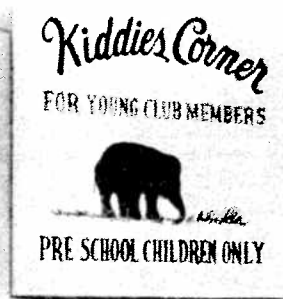
Pleasure in destruction: A personality maladjustment in which pleasure is derived from destroying things.

Transfer of guilt: Creating situations in which blame can be placed on others, thus relieving feelings of guilt on the part of the instigator.

How many of us have displayed one or more of these attitudes when on a street or road with an automobile?

Building safety belts into cars, creating super-highways, strict enforcement of laws concerning driving and publication of news pictures and reports of accidents will only serve as minor contributions to the cause of road safety until drivers correct their attitudes as outlined above.

Toddlers' Nursery Latest Davis Stunt



Enterprising Lloyd Davis, manager of the Employees Club at Levack, came up with another of his bright ideas for community service recently when he inaugurated a nursery where mothers who want to bowl during the afternoon may leave their children.

Lloyd converted a small room opposite the alleys into an attractive little pasture where the toddlers can amuse themselves without getting into mischief and the mothers can keep an eye on them while going for the strikes and spares.

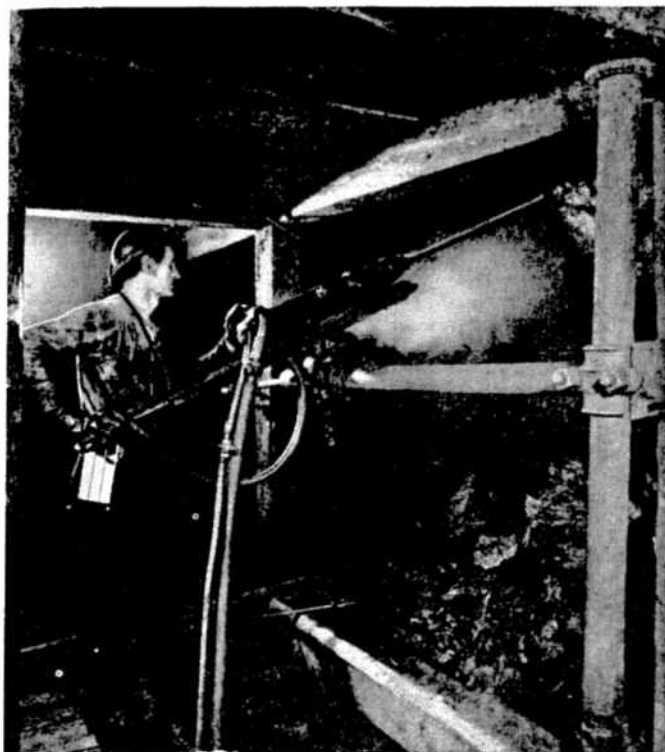
First customer in the new nursery, photoed herewith, was a budding heartbreaker named Joanne Villeneuve (wow, look at those eyes).



TWO INCOITES WED

Making a handsome couple as they cut the cake at the reception following their wedding in St. Clement's Church on September 5 were Mary Anne Caldarelli of the accounting department at Copper Cliff and her brand new husband, Ed Vendramin of the electrical department at the iron ore recovery plant.

Last of the Leyners Now Yielding to Versatile Newcomers



Rapidly slipping into the limbo of the past at Inco mines is the scene shown in the first picture above, a conventional column bar or leyner drill in operation in a stope. On the right is the new look in Inco drilling, the lightweight versatile airleg drill equipped with tungsten carbide tipped steel. Even its most zealous advocates were surprised at the results this combination produced when given a chance to show its stuff. Operating the leyner is Alf Greiner, and at the controls of the airleg is John Daly.

Conversion to Airleg Drills and Carbide Steel Near Completion at Inco Mines

Lightweight, versatile airleg drills equipped with tungsten carbide tipped steel are rapidly replacing conventional column bar or leyner drills in Inco operations.

To date the conversion is 100% complete at Garson and Stobie; Levack is 95% on the way, Creighton 81%, Frood 22%, and Murray 20%. The way the schedule is working out Frood will probably be the last haven of the refugee leyners.

Glancing back down the corridors of time, early mining methods were scarcely calculated to set footage records but they certainly earned the pearl-handled toothpick for perseverance. In those far-off days man did, without benefit of steel, explosives or proper tools, contrive to drive drifts, sink winzes and mine stopes. Taking advantage of every slip and crack in the ore he built fires in the crevices and then cooled them suddenly with water to produce contractions which resulted in breaking up the rock or ore. Slowly, laboriously, he won metal from the earth.

The development of steel and explosives was responsible for a great revolution in mining, with hand drilling setting the vogue until about the turn of the century when the then ultra-modern piston drill made its appearance. It was followed several years later by the hammer or percussion type drill. The earlier percussion drills, or leyners (pronounced liners) were of the hand-crank type and eventually were replaced by the power feed drills still widely in use today.

Now a new and highly significant chapter is being written in the annals of mining with the introduction of the lightweight, widely adaptable airleg drill and the use of

harder, longer-lasting tungsten carbide inserts in the drilled steel tip. Exhaustively tested in the Company's mines, this combination swiftly justified the enthusiasm of its proponents and was soon setting records under almost any conditions where it was put to work.

This new drill is what can be termed a pusher style percussion drill. It consists of an air-operated leg, similar to that of a stopper, attached to which by a flexible wrist-like connection is a small drill much like the standard stope plugger. This connection allows drilling holes over a complete range from the horizontal to the vertical with ease. The machine is operated by two simple valves, one for the leg and one for the drill itself. Its advantages over the conventional leyner (for instance 106 lbs. vs. 230 lbs.) have to be admitted by even the most firmly entrenched of the old guard. With it there is no necessity to set up a heavy bar and arm to hold the drill, no cumbersome machine to hoist onto the arm with each setup, no need to reposition the drill on the arm for each hole with that big chuck wrench, in fact no need to do little more than connect air and water, insert steel, and commence drilling.

In extremely irregular or badly broken ground such as is frequently found in pillars, the flexibility of the new drill plus the time it saves over the leyner in setting up here and there to drill just a few holes or "pops", have won it the unqualified approval of even the most critical pillar miners.

Cut and fill, shrinkage, square set, drifts both large and small, are all taken in stride by this eager beaver which with its porta-

bility, speed, and maneuverability has been successfully demonstrated in all phases of drilling. A fixed leg is attached when it is used for raising and removed when it is used for shaft sinking.

It is unlikely, Inco engineers say, that the airleg drill could have achieved its spectacular success had not the new tungsten carbide drill steel insert been developed almost simultaneously. As with drills so with steel — improvements have been made from time to time over the years. Twenty years ago the Company's mines were using drill steel made from plain carbon steel referred to as "integral" steel. This was usually cut in lengths of from 3 to 11 feet, in 2-foot variations to conform with the 24-inch run of the leyner drill. A bit was formed on one end of the steel, the bits being reduced in gauge for longer steels to compensate for gauge wear. The depth of hole that could be drilled to take powder was restricted, and the amount of steel that had to be handled to and from the working places often placed a formidable load on the nippers.

In 1940 the introduction of detachable bits made life a good deal happier for the drillers and the nippers since fewer lengths of steel were required for each round or breast. These bits also varied in gauge according to the depth of the hole, and were painted different colors to be readily distinguished. While they were definitely an improvement over the old type, the difficulty of drilling deeper holes remained because the detachable bits, punched from plain carbon steel, also lost their gauge and cutting edge too quickly.

The application to drilling of tungsten carbide, one of the hardest substances known, was the result of years of research and testing. While it had been used in the machine tool industry for many years for cutting it seemed unlikely to stand up under the heavy pounding of percussion drills on account of its brittleness. Eventually the engineers came

(Continued on Page 14)

These are the 58 veterans of the Nickel Refining Division at Port Colborne who will be welcomed into membership in the Inco Quarter Century Club November 8



E. H. Arnold



F. Babirad



C. A. Beach



E. J. Benner



M. Danch



J. W. Davison



N. Davison



B. Deval



A. Dobos



J. Drake



F. Dravecky



K. Elgner



H. Ellsworth



S. Gavrelluk



A. Gibbs



D. Guenther



T. Jakab



R. King



G. Koeber



A. Kovacs



J. Lamble



I. Lindenas



J. Lipovsky



D. J. MacDonald



T. Mayne



J. Mekker



C. Minor



A. Murin



J. Nemes



D. Nixon



N. Noxel



A. Ori



A. Peressotti



J. Racz



D. Randall



J. Reuter



C. M. Reeb



W. Roach



J. Rogers



W. Rogers



J. C. Royal



M. Sabo



G. Scott



J. Sellwonchik



S. Sera



T. Sindara



H. Smith



S. Smith



P. Smoljanovich



M. Szabo



F. Szalay



J. Szfangret



W. Thompson



A. VandenBosch



R. L. Wetherup



W. Wigston



R. Winger



M. Zack

Temporary Cover

(Continued from Page 4)

the cable for this purpose. When the crew travelled to their working place the barrel was replaced by a concrete "ball" shaped like a nail keg, which each man in turn rode to the top something after the manner of a circus aerialist ascending to the high trapeze. On days when the wind was strong enough to blow the ball about, the men climbed the ladder; their day's dismantling was piled for lowering when conditions were better. No sway was noticed at the top of the stack in a wind of better than 40 m.p.h.

After the cover was removed and the scaffolding taken down, the crew proceeded with removal of the wooden bulkhead that had been left in the opening of the main flue, inside the bottom section of the stack. This done, and various inspection openings sealed off, the stack was declared ready for action when the iron ore plant goes into production some time before the end of the year.

Stretching skyward 615 feet above its 22-foot concrete foundation, the great chimney has an outside diameter at the base of 63 ft. 3 in. which tapers to 33 ft. at the top. At the bottom its concrete walls are 4 ft. thick, at the top 18 ins. It contains 7,400 yds. of concrete, 500,000 brick in the lining, and 15,500 cu. ft. of insulation between brick and

lining. The weight of the insulation is 95,000 lbs., of the reinforcing steel 510,000 lbs., of the brick and mortar 5,000,000 lbs., and of the concrete 28,500,000 lbs., making the total weight of the chimney and base 34,114,000 lbs.

MANUFACTURING WITH DYNAMITE

An ingenious manufacturer has devised a method of using dynamite to blast large Monel nickel-copper alloy fan hubs into shape. In the process a Monel cylinder is placed in a water-filled die with a stick of dynamite suspended at the water level. The blast forces the ductile alloy into the contour of the die at a fraction of the cost of spinning to produce the same shape.

Girl Guide Association Leaders Were Visitors at Copper Cliff



In Sudbury to attend a provincial executive meeting of the Girl Guide Association, this group took advantage of the opportunity to visit Copper Cliff smelter and said they were deeply impressed by the magnitude of the operations. From the left they are Mrs. P. D. Hart, Ottawa, Mrs. J. K. Moss, Dundas, Mrs. D. A. Smith, Clarkson, Mrs. C. E. Forden, Hamilton, Mrs. C. J. Gibbon, Hamilton, Mrs. T. C. Gibson, Hamilton, Mrs. P. Evans, Owen Sound, Mrs. C. H. Clark, Stoney Creek, Mrs. V. T. Bryce, Hamilton, Mrs. Laura Gervais, Toronto, Mrs. W. H. Sims, Kitchener, Mrs. Leonard Aedy, Fort William, Mrs. Frank Panabaker, Ancaster, and Mrs. L. H. Campbell, Ottawa. The executive meeting was presided over by the provincial commissioner, Mrs. D. Bruce Wilson of Toronto, who was assisted by the local area commissioner, Mrs. D. H. Forster, and the local divisional commissioner, Mrs. C. C. Evans.

Bill Sylvestri Has Highest Praise for The Medical Staff

"I'd like you to print in your paper that I am really thankful to the Company doctors and nurses for their attention to me, and also to the Company for having such a good medical plan."

This was the request of Bill Sylvestri when the Triangle called around to interview him on his retirement on disability pension after 29 years of Inco service. For some time past in and out of hospital with his recurring illness in addition to receiving medical attention at home, Bill has had ample opportunity to size up the medical department and his remarks will be appreciated by Dr. H. F. Mowat, the chief surgeon, and his staff.

the sweet of several types of work Bill, like many a man before and since, finally realized that while far-away hills may appear greener there was, in reality, more "long green" to be had right around home. As a result he hired to the electrical department at Creighton in 1925, transferring to Copper Cliff in 1928. He was considered one of the most capable and reliable leaders, particularly adept at the art of improvising.

In 1927 Dominici Sardini came from Italy to visit her brother in Copper Cliff and while there was captivated by the attentions of a dashing young electrician named Sylvestri. Their marriage in 1928 has been blessed with happiness and two lovely daughters: Daisy is married to Stan Smith of Creighton and Ruby is a nurse at Mount Zion hospital in Toronto.

On his doctor's advice Bill intends taking a complete rest for some time and will catch up on all that reading he has missed these

past busy years. At the Italian Club, where he has been the ace projectionist in his spare time ever since the place opened, it's hoped he'll be back at his post "reel" soon.

THE FRONT COVER

The traditional "trick or treats" campaign well underway, this group of Hallowe'en house-to-house canvassers under a lamp-post to share the swag so far collected and then deploy for further strategic maneuvers. Helping the Triangle make the picture were Dale, Freddy, Michael and Timmy Silver, Susan Harrison, and Peter and Louis Renzoni.

Another maintenance job watched with interest was attaching a new lead covered cast-iron cap to the top of the 512-foot stack, replacing the worn out one. The top of the stack was also painted 50 ft. down with acid-resisting asbestos asphalt paint.



MR. AND MRS. BILL SYLVESTRI

Bill was born in Italy in 1904 but migrated to Canada with his parents when he was a child. They settled in Copper Cliff where his father was employed with the Canadian Copper Company and then with Inco. Bill well remembers the summer holidays when he worked carrying water to the men on the roast beds. He also picked rock at Creighton during the summer of 1917, then two years later quit school entirely and went out into the wide world to make his own way.

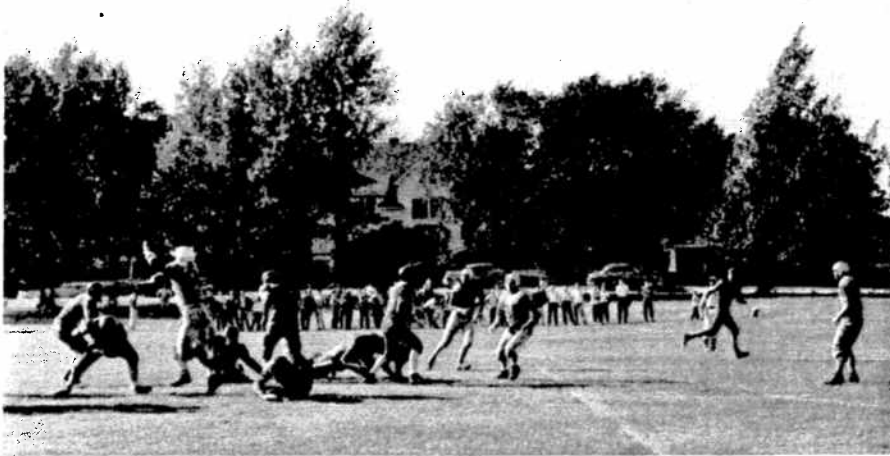
After personally sampling the bitter and

At Farewell Party for the Colquhoun Sisters

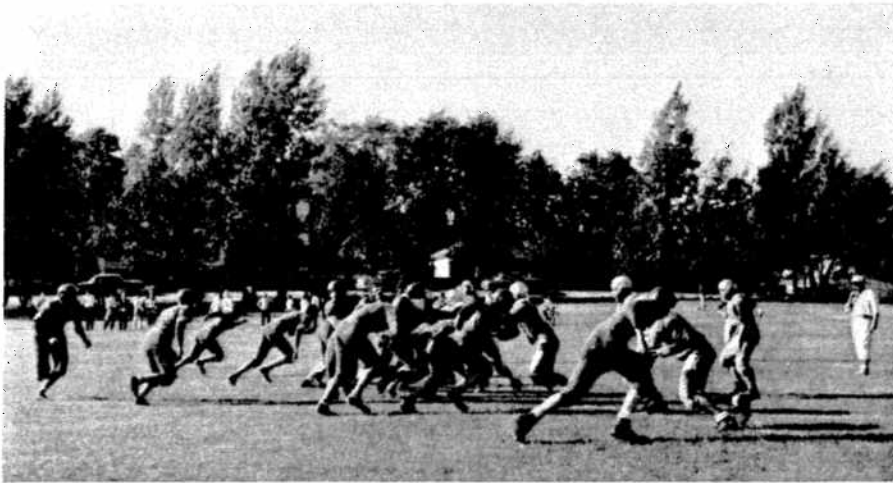


More than 200 friends from all over the district, many of them former residents of Victoria Mines and Coniston, attended a farewell party for the Misses Agnes and Florence Colquhoun who have left to make their home in Willowdale, Ont. Presentation of a television set was made to them by Fred Murphy on behalf of the gathering. Longtime residents of Coniston, Miss Agnes as a member of the smelter office staff and Miss Florence as a valued worker in community activities, they enjoy the affection and esteem of a wide circle of friends. Photographed above at the farewell party are Miss V. Olivier, Miss Agnes Colquhoun, E. T. Austin, former plant superintendent, Miss Florence Colquhoun, and Mrs. L. Cresswell.

Action on the Interscholastic Football Front



St. Charles College and Sudbury High were the teams in action on the campus at Copper Cliff when the Triangle camera caught these shots of senior interscholastic football. Another highly successful season was rung up in the four-team league.



St. Charles College Added a Lot of Zip

Fall is the season of falling leaves, fallen arches (from standing on ladder rungs washing windows) and, most important of all, the falling of heavy, rather than heavenly, bodies. Of this last-named the Nickel District had its full quota once again as mud-bespattered bandaid-bedecked heroes crashed to the turf in the senior interscholastic football league.

With St. Charles College fielding a team for the first time the league was a four-way affair although officially all games played with St. Charles were considered as exhibitions only since there were several ineligible players on the College roster. The additional competition provided by this aggressive group added considerably to the calibre of this year's play and augured much for next year.

Copper Cliff's second sortie into senior ranks, while not too successful win-wise, was enthusiastically supported by every man and maid. Despite some excellent play-making and running by Fletcher Bryan, Crossgrove and others the team ended the season in the cellar, but this failed to dampen enthusiasm or curb the school spirit.

Tom Cooney's Sudbury High Wolves and Alex McPherson's Tech Bluedevils dominated the league with High being particularly strong

defensively, permitting fewer points to be scored against them than any of the other clubs. With Narozanski and Puro attending to the quarterback duties, ably aided and abetted by backfielders Tate, Martilla and Hunter, opposing teams found High a mighty tough dish. Tech's Armstrong, Bursen and Dozzi also had a fine season and gave many an anxious moment to the opposition.

As in the past the high-calibre officiating of men such as Herb Perigoe, Gerry Wallace, Nick Evanshen, Bud MacDonald and Joe Zaitz meant much to the success of the season. And the cheerleaders were right in their again with their colorful contribution.

ENCOURAGING SAVINGS

A substantial saving to employees purchasing Tenth Canada Savings Bonds under the Payroll Savings Plan was again made possible by the Company's offer to absorb the usual 3 1/2% interest cost for instalment purchase and deliver paid-up bonds with all interest coupons attached.

In a letter to the employees Vice-President Parker said "The habit of regular savings, which we should all strive for, can be readily achieved or maintained through this plan. Everyone should take full advantage of this opportunity, increasing not only their own security but that of Canada."

DEFINITION

Middle Age: When women won't admit their age and men won't act theirs.

Annual Meets Held For Swim Classes



MERMAIDS TRIM MALES

Thirty seniors and 50 juniors took part in the meets winding up the swimming program for the year at the Copper Cliff Club.

Feature of the senior competitions was the stunning upset scored by Diane Godfrey, who had set two new swimming records, and her partner Patsy Nelan. In the life-saving relay they vanquished three teams of representatives from the so-called superior sex.

Another performance that made a big hit with the capacity audience was the exhibition of delirious diving by Ranauld Livingstone and Wayne Nute.

The chairman was Tom Peters.

In conjunction with the swimming and diving competitions, examinations were held for those trying for various awards in life-saving, in which instruction had been given in a series of classes.



DER PROFESSOR LIVINGSTONE

IT HELPS

They say you can't take it with you, but have you ever tried to travel very far without it?



The fans start up the old give-us-a-goal chant when this fast-breaking trio takes off. Art Rose, Hub Beaudry and Marcel Clement are crowd pleasers from away back, and one of the main reasons Sudbury Wolves are being picked for the Allen Cup.



Coach John "Peanuts" O'Flaherty talks things over with some of his defence stalwarts. The three "mobile Gibralters" are Danny O'Connor, Lenny Speck, and Gus Gustavson.

Wolves Look Great And Seem to Have Hounds' Number

After a pre-season schmozzle that had everybody in a dither of indecision, peace and understanding descended upon the Sudbury senior hockey front and the Wolves went to work.

Presenting a star-studded roster headed by that amiable Irishman Tom O'Toole and coached by another hockey-wise son of Erin, John "Peanuts" O'Flaherty, this year's team already looms as a powerful contender for Allen Cup honors. With two victories over the Soo's lean and goal-hungry Greyhounds in as many starts, they are living up to the rosiest expectations of their palpi-

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On the left above is the Wolves' new "Kid Line" of Johnny Gillis, Billy Watson and Joe Zorica, who also contribute a powerful scoring punch to the Wolves. On the right Coach O'Flaherty chats with his two brilliant goalies, Johnny Albani and Andy Anderson.

Northern Ontario Highland Games Again a Great Success

Young Livingstone Best in the Piping

Scots by birth, extraction, inclination and absorption all mingled happily at the second annual Northern Ontario Indoor Highland Games at the Inco Club in Sudbury and pronounced the event an unqualified success.

The stirring skirl of the pipes and the rich colorings of the tartans provided a vivid background for the day-long program staged by the Copper Cliff Highland Cadet Corps with the assistance of the Sudbury Junior Chamber of Commerce.

A 13-year-old Copper Cliff boy, Billy Livingstone, was the outstanding performer at the meet, winning the open piping championship against the finest competition the North had to offer. He also placed second in the slow airs, which was won by the veteran Tom Graham of Timmins. Billy's brother Ranald, pipe major of the cadet corps, took third place in both events.

Pipe Major J. T. MacKenzie of the RCAF pipe band at Rockcliffe, Ottawa, formerly piper to the Royal Household and leader of the pipe band at Edinburgh Castle, was judge of the competitions. He expressed pleasure at hearing so many pipers of high calibre in this section of the country.

Patricia McPhail, 10 years old, wearing the Air Force Tartan, showed great talent in the Highland dancing competitions, in which she was awarded four of the prizes offered by the Sudbury Sons of Scotland. Although she had been taking lessons for less than a year she delighted everyone with her skill and grace, set off by her captivating personality.

For many the most exciting feature of the festival was the dancing of Patricia Ewen of Toronto, who at 18 is regarded as one of the world's best. She recently distinguished herself in open international Highland dancing competitions in Scotland. At the evening concert, with Pipe Major MacKenzie playing her accompaniment, she danced the difficult but beautiful Flora MacDonald's Fancy and the King of Sweden in flawless style. She

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Daughter of Mr. and Mrs. Jack McPhail (Inco Police), dainty young Patricia McPhail won the Sons of Scotland medal for Highland dancing. She is seen on the left, above, and on the right is the brilliant young piper, Billy Livingstone, who won both the junior and open piping competitions. He is the son of Mr. and Mrs. W. Livingstone of Copper Cliff.



Col. Robin Swain, chief instructor of the Copper Cliff Highlanders, officiated at the presentation of prizes. He said this year's games were twice as successful as 1954's.



One of the world's best Highland dancers, 18-year-old Patricia Ewen of Toronto, delighted the big audiences; she's shown above in the sword dance. On the right is Alex Godfrey, asst. to the vice-president of Inco, who as camp chief officially opened the second annual Northern Ontario Highland Games.



How Many Garson Champs To Repeat Bowling Triumphs?

As bowling was revived up to full throttle at Garson Employees Club the Triangle trained a lens on some of last season's champions and wondered how many of them will turn up in the spotlight when trophy time rolls around again next spring.

In the accompanying pictures are:

TOP: The Ralph team, winners of both the Roy and Garson Mine Athletic Association trophies in the ladies' league: V. Juoppi, J. Latendre, J. Zimmerman, V. Latendre, E. Tullock, and I. Ralph, captain. Mrs. Juoppi made a clean sweep of the individual awards for high average, high triple, and high single.

SECOND: The Levesque team, winners of both the Todd and Garson Mine Athletic Association trophies in the men's A league: F. Desjardins, D. Cuomo, T. Perala, E. Maki, and P. Levesque, captain.

THIRD: This is the team that won the Davis trophy for the B league consolation: L. Synnott, C. Rollins, T. Rollins, captain, J. Gates, and C. Tulloch.

LOWER LEFT: E. McKinnon and P. Quackenbush, consolation winners in the ladies' league; **LOWER RIGHT:** Cecil Ace and E. Lye, winners of the club trophies in the singles championships.

Sixteen teams are competing in the men's section this season, six in the ladies' league, and eight in the new teen-agers' league. The mixed loop hasn't swung into action yet.

Conversion

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up with the answer to that problem — the tougher insert and the airleg drill that hammered the steel with less force so as not to chip it but hammered it oftener, striking 2150 blows per minute as compared to 1800 per minute with the leyner.

The steel most generally favored to date at Inco mines, is a $\frac{7}{8}$ -inch hexagonal steel with a carbide tip permanently fixed at one end. This steel will drill some 40 feet between sharpenings and has a lifetime of up to 400 feet with very little gauge loss, compared to the much more frequent sharpenings (sometimes after only two feet of drilling) and much shorter life span of the old types of steel.

With the leyner drill and conventional steel it is necessary to change steel after every two feet of drilling whereas with the airleg and carbide steel a run of five feet before changing is not unusual. Carbide steel comes in lengths of from 2.65 to 15.75 feet and bit gauges varying from 1.34 to 1.14 inches as compared to the larger gauges of from 1 $\frac{1}{4}$ to 1 $\frac{3}{4}$ inches with conventional steel. Drilling a smaller hole that will still take regular powder is naturally more efficient, and a further advantage of the carbide steel is that the loss in hole size over a depth of from 3 to 15 feet, for example, is only $\frac{1}{8}$ of an inch compared to the $\frac{1}{2}$ -inch reduction for the same depth of hole with conventional bits.

At present airleg drills cost about half as much as leyners; currently they are somewhat more expensive to maintain but all indications are that they will soon have the edge in this department too.

Every now and then something new, and every few years some sweepingly important development — what a fascinatingly progressive industry is mining!

Creighton Mine Accident-Free for a Record 181,000 Shifts



Congratulations were certainly in order at Creighton when for the fifth time the mine qualified for the 100,000 Safe Shifts Award. From June 10 to August 22 a total of 100,623 shifts were worked without a lost-time accident, entitling all persons on the payroll who worked during that period to the usual theatre ticket prize. The splendid performance was maintained for a total of 181,000 shifts, longest accident-free period in the history of the mine. Pictured above are representatives of the various departments whose safety-minded co-operation resulted in another record for proud old Creighton: E. Thompson, mill operating, Orville Simpson, mine mechanical, Earl Mumford, superintendent, Dick Brookes, electrical, Nick Kozak, underground.

Wolves Look Great

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tating public, and all is well at the turnstiles, behind the dressing room door, and in the front office. Long may this state of affairs continue is the wish of one and all.

Several new faces are appearing in the penalty box and elsewhere for the Wolves this season with young Johnny Albani, the classy little netminder from Toronto, possibly being the most outstanding to date. Opposing forwards swear he has an electric eye or some other devilish device that automatically stops the puck. This is Johnny's first year in senior company, coming from Marlborough Juniors where he spent the past two seasons. In addition to Albani that reliable bulwark of other years, Andy Anderson is standing in the wings ready to perform if and when necessary.

Out front of these gaspige custodians are several burly blockbusters with mannerisms designed not to win friends but to influence people, more specifically certain people from the Soo, Pembroke and North Bay. Lennie Speck, three-time consecutive all-star nominee, Gus Gustavson and Danny O'Connor are three of these mobile Gibralters who with ex-Greyhound Carl Smelle are rendering great service on defence. Speck, who has been with the Wolves since 1952, is somewhat of a rubber rifle in his own right, having scored seven goals last year while assisting with 22 others. He was also chosen by Sudbury fans as the most popular player. Gus is the local "sin bin" specialist with some 71 minutes spent in durance vile last year. This is peanuts, however, compared to his pro years when he racked up such impressive totals as 187, 171 and 167 minutes of his playing time as an unwilling spectator. He played with Tacoma, Syracuse, Vancouver and Charlottetown before coming to Sudbury. Danny O'Connor is a local product who, like many others, found it necessary to leave home in order to be discovered. Last season he was with Charlottetown and spent the previous year with the Soo Indians.

Three red-hot high-flying forward lines are raining the rubber on visiting goalies. The newly formed Gillis, Watson, Zorica

line are the dippy-doodle dandies and are already being dubbed the new "Kid Line", this bringing a smile from Billy Watson, who as he looks back over his 27 active years on this old earth. Gillis a local product (Garson) played the last two seasons with Guelph Biltmore; this is his first senior semester. Zorica is probably better known at the moment as Copper Cliff's ace shortstop and R.B.I. champ, however at his present goal-setting pace that distinction will undoubtedly play second fiddle to his hockey reputation ere long.

A second line of Art Rose, Hub. Beaudry and Marcel Clement are a particularly hard checking crew who give opposing forwards a rough time both ways. Beaudry, a recognized master at ragging the puck, should have been picked up by the N.H.L. before now according to many a blue seat general. Clement, an original home town product, is going well and Rose, the Wolves leading goal getter last year, appears as dead as ever again this term.

A third line of Andy Milne, Nick Tomiuk and Frank (Creighton baseball) O'Grady make a very effective combination and with veterans Yacker Flynn and Tatter McLellan along with Alf Baccari in reserve as utility one might be permitted to observe that the future looks fairly bright for the Wolves. With the salary ceiling settled in a most diplomatic manner and with Don Smith and Gary Fletcher soothing the dressing room hassles and headaches, most of the usual wrinkles appear to be ironed out. Now barring injuries, hexes and a poor potato crop all should be well with this Irish-led brigade.

Young Livingstone

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was presented with the McBain trophy for the grand aggregate championship of the games.

Sault Ste. Marie, Sudbury, Copper Cliff, Timmins and North Bay were represented in the large number of entries contesting all the dancing and piping competitions. Five bands took part in the parade of massed pipers and drummers which preceded the

grand finale concert.

Both Alex Godfrey, camp chief, and Col. Robin Swain of the Copper Cliff Highlanders expressed confidence that the games were now firmly established as an annual event that would grow steadily in size and influence, making a worthwhile contribution to the folk-lore of Northern Ontario.

Cup of Life Brims Over With Good

Although he first enrolled with Inco in 1913 when he arrived in Canada from his native Italy, Guilio Biondi drifted away to try his hand at railroading and other jobs and it wasn't until 1920 that he settled down as a permanent Inco employee. He retired on pension in July, proud of his long service and the many warm friendships he formed among his workmates at Copper Cliff smelter.



MR. and MRS. GUILIO BIONDI

Married in 1921 to Maria Perlini, who had arrived from Italy the previous year, he is the happy father of two daughters, Olvidi and Dina, both married, and two sons, Mack of the accounting department and Derio of the electrical department at Copper Cliff.

With their fine family, their handsome home, and their summer camp at Lohi Lake, Guilio and his good wife find the cup of life brimming over with goodness. Long may they enjoy it is the wish of all.

Incentive is what keeps one's chin up! Dare to dream, to risk, and to venture. These are what give nourishment to the mind.

—George Matthew Adams.

SNAPSHOTS OF LIFE WITH INCO



The only bird Murray Nowe of Stobie got on this hunting trip was the "bird" his wife gave him when he returned to his ever-hopeful family with no bird for the pot. But it was a nice day for a walk in the woods, he said.



Mrs. H. R. Dodd and her son Norman of Eighth Ave., Lively, expect great things of this tulip bed next spring, and if preparation and neatness mean anything it will surely be a thing of beauty. Couldn't blame those bulbs if they were to turn somersaults in company like that, could you now.



All desperate characters will do well to give the town of Copper Cliff a wide berth in future unless they are anxious to become human sieves. At the first Sudbury District Police Pistol Association shoot a quartet of dead-eye dicks from Copper Cliff copped the top spot in the team event. They're shown above: Sgt. Bert Hague (captain), Insp. Adam Watson, Con. Lloyd Davey and Sgt. Jim Graham. They won the new Sudbury Daily Star trophy over teams from Sudbury, McKim, Neelon-Garson, Burwash, Ontario Provincial Police, Royal Canadian Mounted Police, and Canadian Pacific Railway police.



There was a large turnout at the Canadian Legion Hall in Port Colborne at the retirement party for popular Frank Hammond of the mechanical department. In the above representative group were Tommy Lee, pipefitter, Joe Kelly, carpenter, Chris McPhail, mechanical superintendent, W. J. Freeman, assistant manager, Oliver Sale, machinist, "Hamm", the guest of honor, Logie Roy, electric welder, Mac McKelvie, machinist, Joe Byng, bricklayer.



"A very able and a very popular teacher" was a tribute to Miss Mary Stanley of Copper Cliff public school by Principal A. G. Orr when she retired on pension after being a member of the staff since September 1927. A large party was given in her honor at the Copper Cliff Club. Above she is seen at Copper Cliff High School chatting with three of her former Grade VIII pupils, Joanne Renzoni, Allan Thorpe and Harry McKinnon. Principal W. M. Harrington (right) spoke highly of the scholastic standard maintained by Miss Stanley's teaching over the years. She now makes her home in Lindsay, Ont.