INCO TRIANGLE

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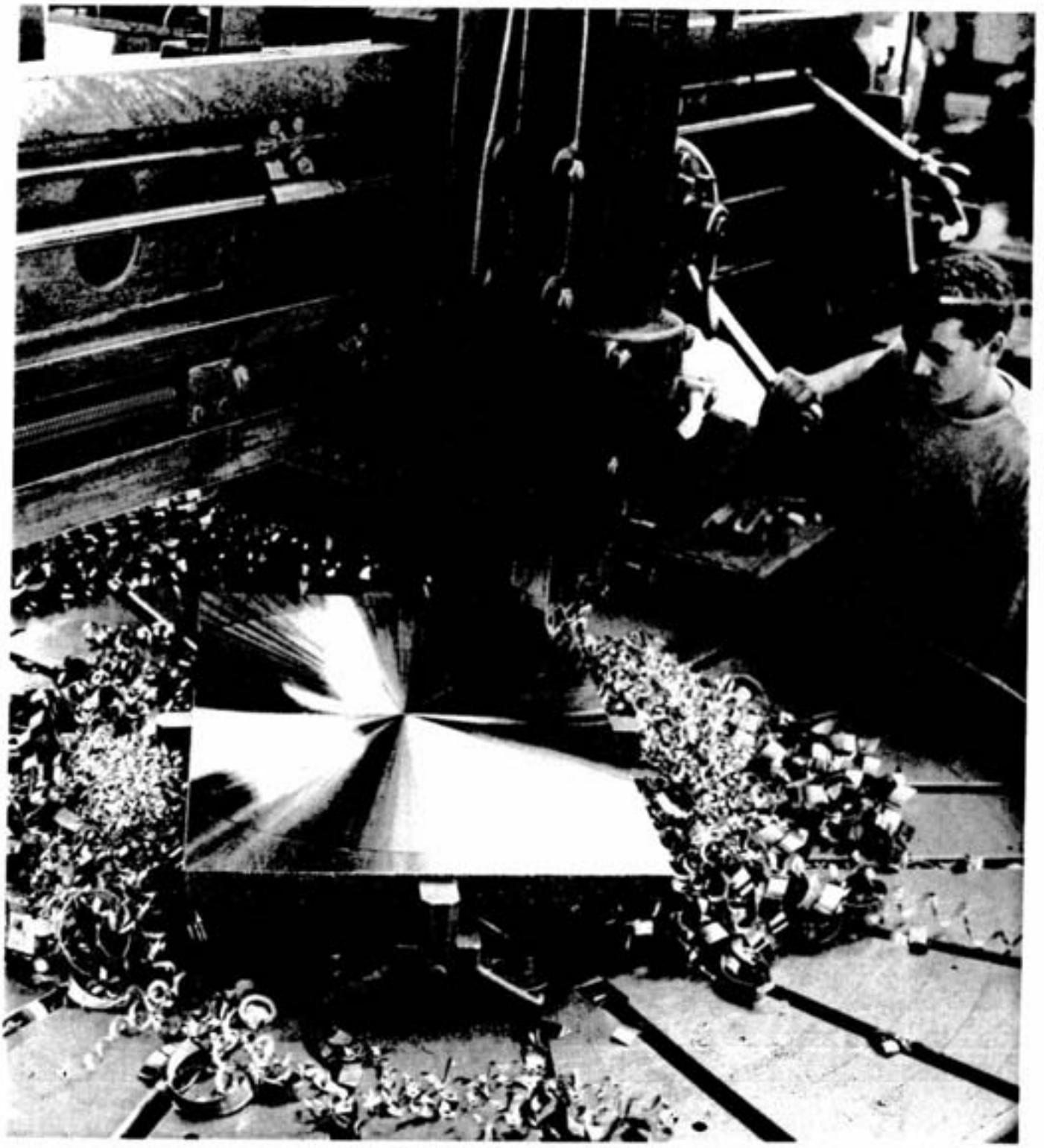

Reflections in Copper

(SEE PAGE 2)

INCO TRIANGLE

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Don M. Dunbar, Editor
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Notes and Comment

THE Christmas Seal sale, carried on in countries all over the world to gain funds for the prevention of tuberculosis, was started in Denmark by Einar Holboell, a Danish postal clerk. The idea occurred to him while sorting the Christmas mail in 1903. He and his fellow workmen figured out the details and then submitted the plan to the King of Denmark, who gave his whole-hearted approval and permission to use the picture of the Queen on the first issue of Seals in 1904. It's much more than a coincidence that Denmark today has the lowest tuberculosis death rate in the world.

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As the Sage of the South Range has so aptly remarked, men are peculiar. A fellow who hadn't kissed his wife in five years shot a fellow who did.

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WEIGHING less than 150 lbs., one of the world's smallest gas turbines delivers 84 horsepower. It's a lightweight wonder when compared with a 25-horsepower outboard motor which weighs over 95 lbs. Used as the source to provide self-starting power for jet aircraft engines, it operates a pneumatic system on the plane as well. To produce this power from such a small unit, its rotor must turn at a speed of 40,000 revolutions per minute and withstand temperatures up to 1,600 degrees F. For these reasons Inconel X, a nickel-chromium-iron alloy which retains its strength at elevated temperatures, was selected for the components of the rotor.

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THE FRONT COVER

The camera has caught here some of the beautiful light pattern set up on the surface of a 1,000-lb. copper cake as it turns slowly on the boring mill in the machine shop at the Copper Refinery. Half the cake is cut away by the boring mill so that observations may be made of the internal structure of the refined shape. During casting, one cake gets this research treatment every eight hours. The machining job takes about two and one half hours. The second class machinist in charge of the mill in the picture is Eddie Martel.

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Microscopically fine wire made of pure nickel is used for the grids of sub-miniature vacuum tubes in hearing aids. The wire, which is made of nickel because of this material's electrical characteristics, ductility and strength, is much finer than a human hair.

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Returning to the Nickel Belt after an absence of three years, Rev. Lauri Pikkusarri found many familiar sights to bring joy to his heart and, so help us, one of them was the Triangle. Wrote us a letter, he did, to say so. "Such a good paper . . . esteemed and well-loved . . ." etc. By gosh but that was a nice letter, Rev.

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JUNE SMITH, who was on the staff at Lively school last year, is now teaching at an Indian School at Rossville, Norway House, away up at the top end of Lake Winnipeg, Manitoba. To her friend Margaret Hanley, of the Lively school staff, she writes a most interesting letter of which the following will be of particular interest to her former pupils:

"Imagine, if you can, children who will **not** talk. They are so shy, by nature, and move about so quietly. I thought their desks would be noisy, because they are old and squeeky, but by some miracle they open them and get out books and pencils without a sound! You never hear a ruler bang or a pencil click!" It must have taken Miss Smith several days to get used to that kind of classroom atmosphere. But apparently Rossville isn't entirely without sound effects, because she says, "The minister puts on a movie each Friday night. The Indians love bubble gum — and what a racket they make with it during the show!"

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Sgt. Bert Conley of Levack says he's never seen birds so wild or hard to get as the partridge are this season, which will be some consolation to the hundreds of eager nimrods who have returned from the bush empty-handed. It will also explain the attitude of some successful hunters who are guarding the whereabouts of their triumphs with all the close-lipped secrecy of the fisherman concerning his private trout pool. For instance, Les Hart and Norm York got a full quota of birds by noon on opening day. When their buddies at the Research Lab screamed "Where? Where?", Les pinpointed the spot for them as follows: "Oh, up north."

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TONGUE-TWISTERS

Are you wearing a little polyethylene terephalate today? Or perhaps some polyacrylonitrile, or even a bit of polyhexamethylene adipamide? If you're clad in any garments made of Dacron, Orlon acrylic fibre, or nylon — in that order — the answer is yes. Those scientists certainly make it tough for themselves with all that double-talk.

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After spending a week scampering up and down ladders on a survey of Inco's mining operations, Fred Wood of the New York office wearily wondered why mines can't be like ranch-type houses — all on one floor.

Creighton Golf Champions Decided

Left to right here are Tom Kierans, Jim Currie, Billy Young and Johnny Krystia, the quartet which with a net score of 273 won Creighton Mine Athletic Association's annual golf tourney. Runnersup with 284 were Casey Caul, Art Hough, Pete Clendening and Archie Massey. Three other teams were entered. Low gross honors went to Charlie McCoy with 36-42—78, while Billy Young picked off the lo wnet laurels with his 87-28—59. There was lots of interest in the event, auguring hot competition for next year.

A PAIR OF ACES

Ron Silver of the Mines Department at Copper Cliff and Ab Miles of Frood-Stobie brought honors to Inco's golfing fraternity, the former by recapturing the championship at Idylwylde and the latter by his victory in the championship final at Sudbury Golf Club. Salaams and words of high praise to these two able shotmakers.

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What corny hubby, pulling that old stuff on his wife about threatening to push her off the dock, suddenly overbalanced and dragged her into the lake with him, both fully clothed and he with a camera in one hand? We're blushing.

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IT DOES us good to contemplate the career todate of young Ella Minkkila, who has been winning honors as a pianist ever since she was eight years old. Last year she capped a long string of triumphs in the Kiwanis music festivals by winning the $250.00 Inco scholarship. Now, at 14, she has been awarded the Royal Conservatory of Music silver medal for obtaining the highest marks in Ontario in Grade 9 piano examinations. What a wonderful future lies ahead of this young lady, with her great gift and her wisdom in sticking to her lessons. Her dad Vaino, who works at Frood-Stobie Mine, and her mother, must be very proud of her.

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IF YOU ABSOLUTELY CANNOT REFRAIN FROM HEAVY DRINKING

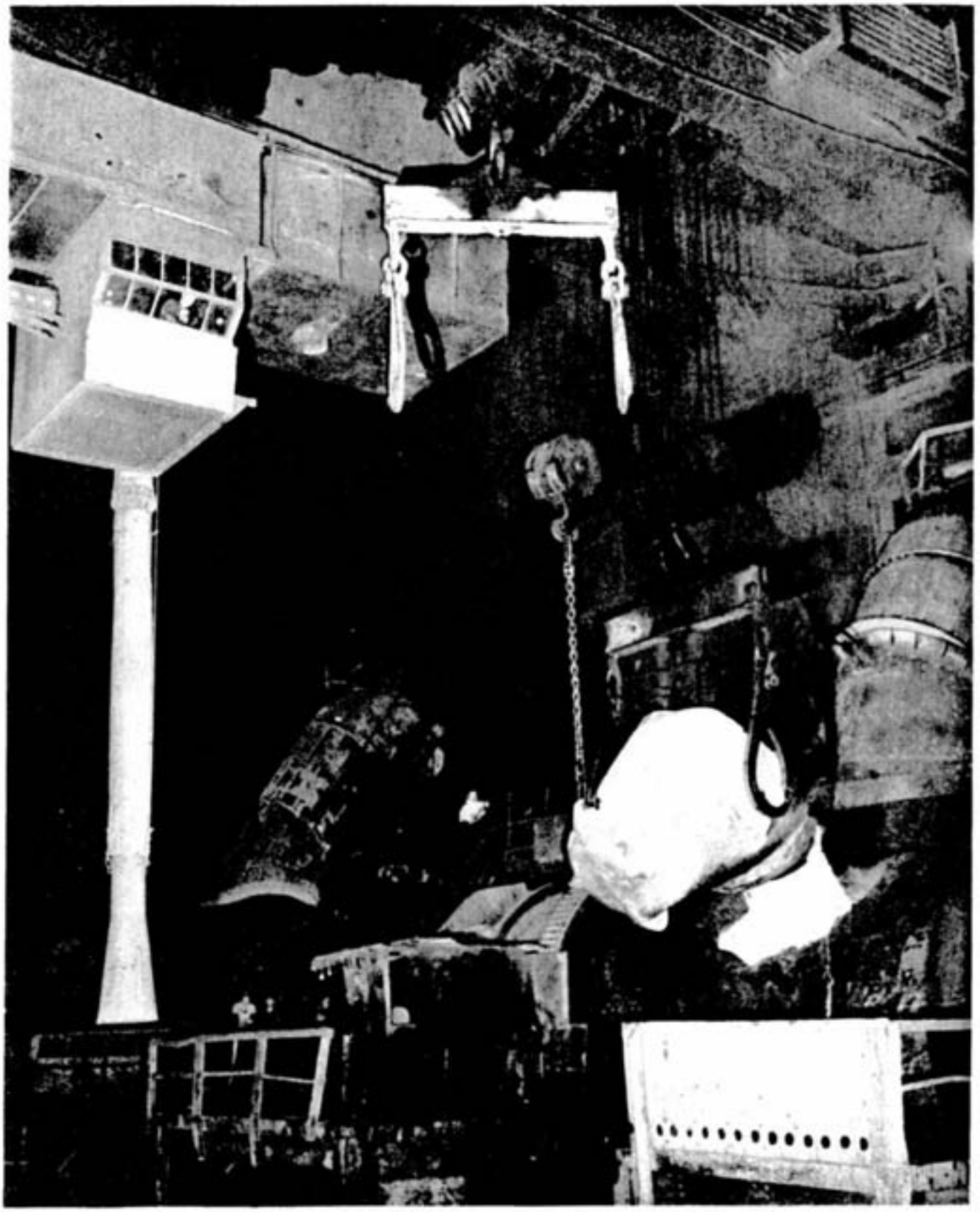
Start a saloon in your own home. Be the only customer and you won't have to buy a license. Give your wife $12.00 to buy a gallon of whiskey. There are 128 snorts in a gallon. Buy all your drinks from your wife at 40¢ a snort and in four days when the gallon is gone, your wife will have $39.20 to put in the bank and will also have $12.00 to start up in business again.

If you live 10 years and continue to buy all your booze from your wife and then die with the snakes in your boots, your widow will have $35,750.40 on deposit, enough to bury you respectably, bring up your children, buy a house and lot, marry a decent man and forget she ever knew you.—Exchange.

INCO FAMILY ALBUM

Looks like some first-class material for Hallowe'en jinks in this month's group of Family Album snaps: (1) Mr. and Mrs. Alex Gillespie (Port Colborne) with Dale, 6, and Terry 3. (2) Mr. and Mrs. John Miziuk (Murray Mine) with Mary, 10; Peter, 4; Stella, 12; Jimmy, 6, and Sonny, 8. (3) Mr. and Mrs. A. Zimmerman (Garson Mine) with Ricky 5, and Arthur, 14. (4) Mr. and Mrs. Paul Bugg (Creighton Mine) with Donna, 9½ mos.; Paul Jr., 8; Teddy, 7, and Roberta, 4. (5) Mr. and Mrs. Tom Smith (Copper Cliff Smelter) with Tommy, 12, and Daisy, 14. (6) Mr. and Mrs. Nick Chepee (Copper Refinery) with Walter, 6½. (7) Mr. and Mrs. T. A. Lindberg (Frood-Stobie Mine) with Irma, 12, and Ilona, 14; not shown, Irene.

Charging Matte to a Converter at Copper Cliff



A ladle containing 13 tons of molten reverberatory furnace matte is charged to a converter in Copper Cliff Smelter. High in the cab of his 60-ton overhead crane the craneman manipulates his controls to make the operation look as easy as pouring a cup of tea. Air for his cab is drawn up through an "elephant's trunk" to avoid the gas and heat in the upper part of the building and is passed through refrigeration and gas absorption units mounted on the crane. The cab is fully enclosed with duplex heat resisting glass which is overhung opposite the controls to allow better observation below.

Steady Game of "Put and Take" In Converters

A mighty spectacle of industry, biggest of its kind in the world, is the converter aisle at Copper Cliff smelter. Here, amid the roar of the furnaces, the hiss of compressed air, the rumble of huge cranes and the fierce glow of molten metal, a process of metallurgical magic is carried on, night and day without ceasing. Here it is that the remaining iron in Inco ore is separated from its copper-nickel pals.

The building which houses the converter aisle is 1,435 feet long and more than 100 feet high. The aisle itself is 66 feet wide and along one side of it stands the great main battery of converters, 19 of them in all, 16 on nickel production and three on copper. Six 60-ton overhead cranes maintain a continuous shuttle service of the giant ladles in which molten metal is transferred to and from the converters.

A converter is a horizontal cylinder of steel 35 feet long and 13 feet in diameter. To withstand the terrific heat of its fiery contents it is lined with 18 inches of magnesite

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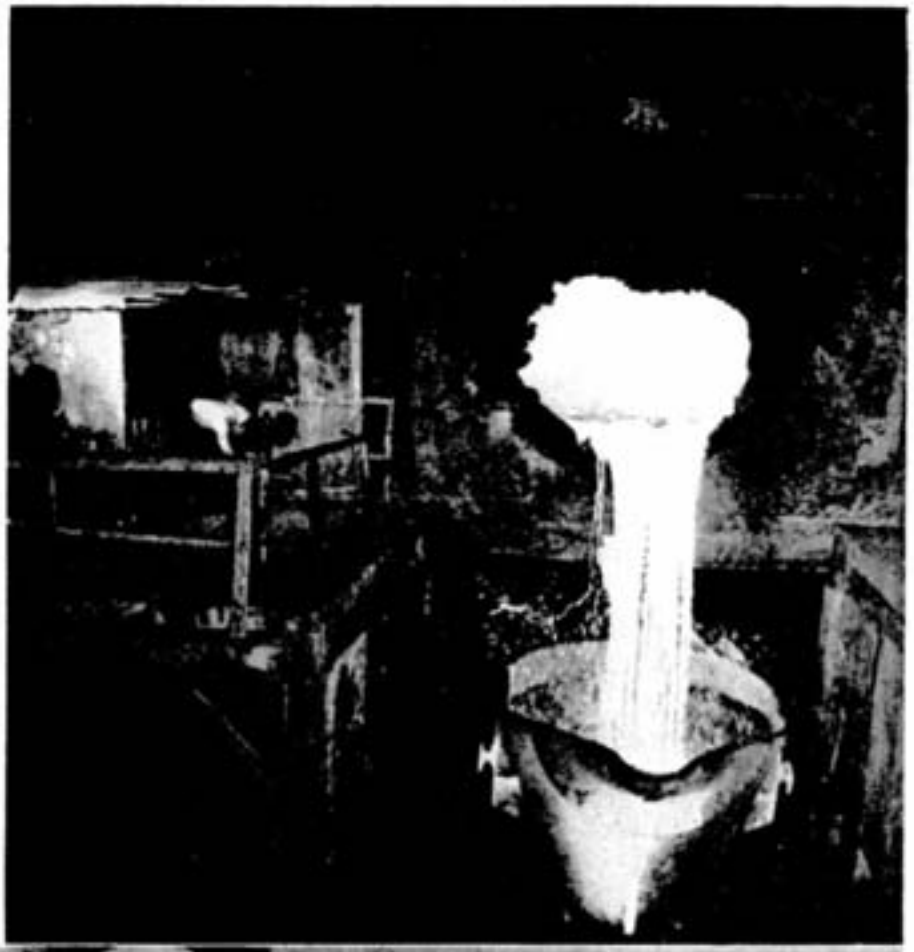
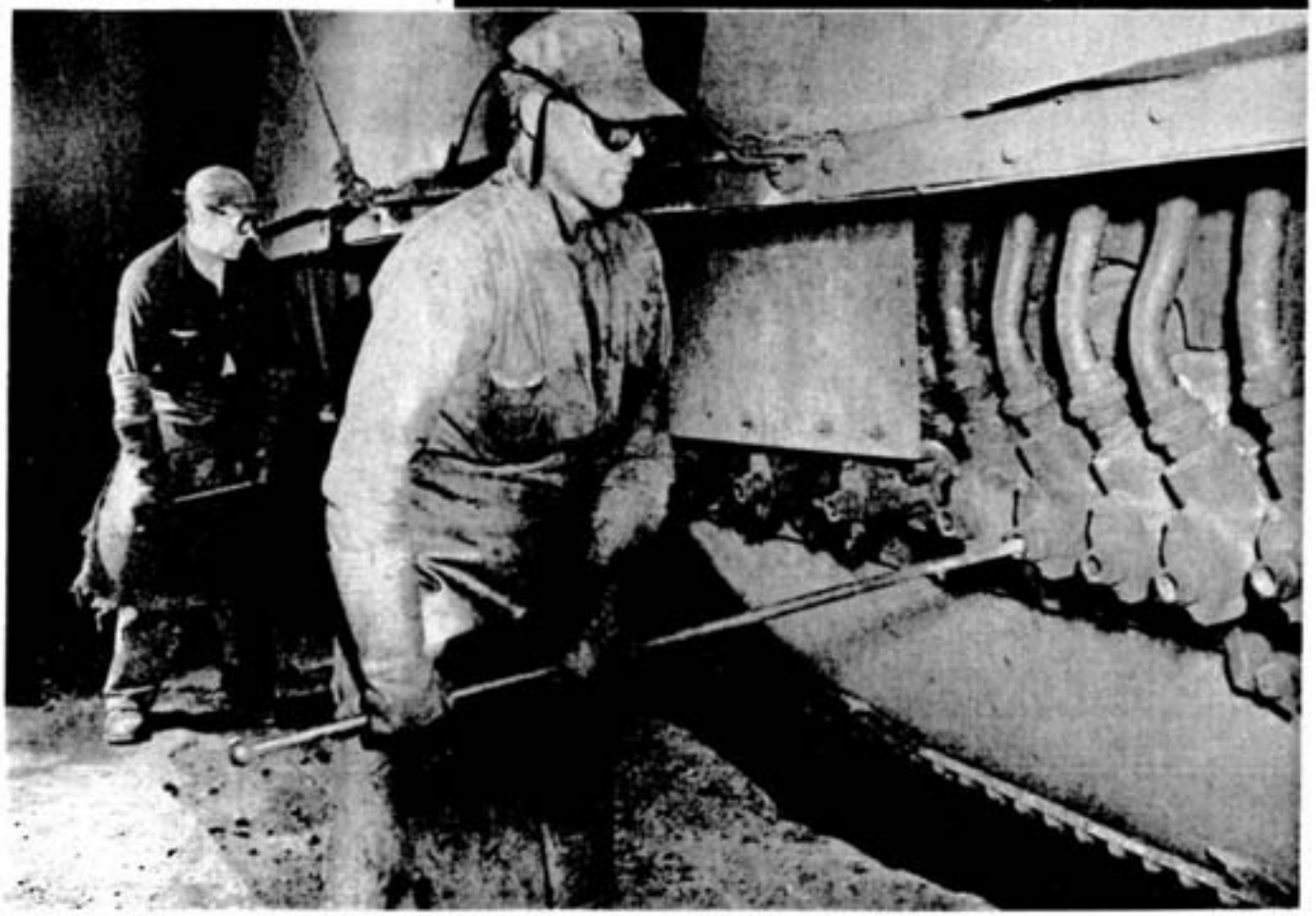


AT RIGHT: Skimmer Herb Blais shoves a testing bar into the stream of slag pouring from his converter to make certain no matte is escaping along with the slag.

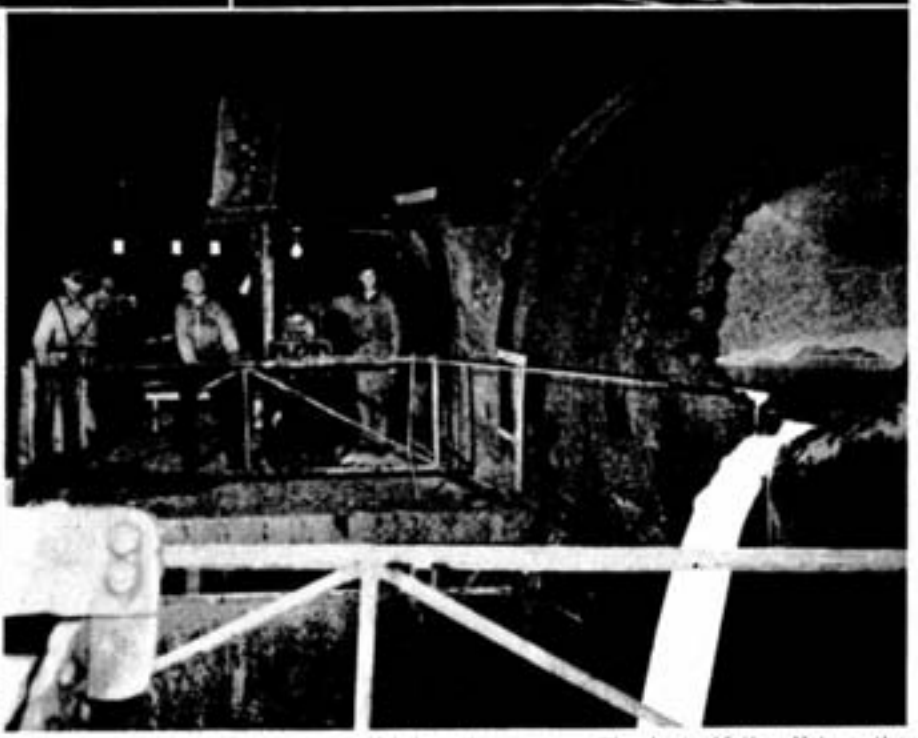
BELOW: Derno Volpini and Tony Debenedet are punching tuyeres to maintain a steady flow of compressed air into the molten bath in the converter.



ABOVE LEFT: Bob Theoret, baleman, guides a bale into position on a ladle of furnace matte before signalling the craneman to "Take her away!" to one of the converters.

ABOVE RIGHT: Herb Blais, skimmer on No. 2 nickel converter, makes out his report at the end of his shift. He has been with Inco 17 years, thinks skimming is the best job there is.

RIGHT: The skimmer stands at his controls after turning down his converter while a matte sample is taken for the metallurgical department. Brick lining of the converter can be seen.



Steady Game of "Put" and Take In Converters

(Continued from Page 5)

brick. For easy operation it is set on rollers and is surrounded by platforms, on one of which stands the skimmer at his electrical controls; upon his skill and experience depends the success of the charging cycle.

The molten matte produced by the nickel reverberatory furnaces in the smelter from crushed and concentrated ore is a copper-nickel-iron sulphide. The nickel and copper, of course, are recovered later but the iron sulphide is regarded as an impurity and it is the job of the converters to remove it. In doing so they raise the copper-nickel content of the matte from 20% to 75% before they pass it on to the next stage of the smelter operations.

The feature of the process is the passage of large quantities of air through the 90-ton charge of matte in the converter. This air is forced into the charge under 16 lbs. pressure through a row of 48 two-inch holes spaced at intervals along the full length of the converter about a foot and a half below the surface of the charge. These holes, called tuyeres, are sealed off with ball valves. They are kept free of freezing over on the inside by the simple method of inserting an iron bar and knocking away the crust as fast as it is formed. This is known as punching tuyeres and it keeps two punchers on each converter busy constantly. As a result of their work there is a steady flow of compressed air into the molten bath in the converter.

The fuel that keeps the charge at a temperature of about 2,200 degrees F is the very impurity, iron sulphide, that is removed in the process. Thanks to Mother Nature, the oxygen of the air entering through the tuyeres attacks both the iron and the sulphur, and burns them at such a rate that the whole charge is kept white hot. The sulphur, in the form of gas, passes through the mouth of the converter and up the flue on its way to the big stack. The iron remains in liquid form and must be removed in a different way.

At the beginning of each "blow", after the converter has been rolled back roaring and spouting sparks and flame, several tons of flux, a mixture of low-grade nickel ore and quartzite, is shot onto the surface of the

charge through a gun at one end of the converter by means of compressed air. The silica in the flux combines with the "burned" iron in such a way as to form slag which separates from the matte and rises to the surface.

At the end of a blow, lasting 45 or 50 minutes, the skimmer in charge of the converter or shell, turns it down, shuts off the air, and pours the top layer, which is slag, into a large pot below the converter. As he pours, or skims, he thrusts a long bar with a flat, upturned end into the stream of slag to test it. Some slag adheres to the bar and resembles heavy syrup; the converter is turned down slowly, inch by inch, but as soon as small brighter spots appear on the bar, or a liquid appears which runs off the bar like water, the skimmer immediately turns his shell back up an inch or so because this liquid is matte and must be retained in the converter. In this way the slag is skimmed clean after each blow in much the same manner as the top is poured off a bottle of milk.

Since the pot of slag contains small quantities of matte which failed to separate completely in the converter, it is lifted by an overhead crane and poured into one of the reverberatory furnaces, in whose quieter atmosphere the matte will settle to be returned to the converter later on.

Now there is room in the converter for more matte. A green light on the skimmer's platform signals this fact to the men on the reverb furnace. The matte is tapped from the furnace into a 13-ton ladle, wheeled out to the converter aisle on a transfer car, and delivered to the converter by crane. Once again the big hood over the mouth of the shell lifts up, the converter is turned down, the air is shut off, and the matte is charged.

And so goes the cycle — charging matte, blowing in flux, skimming slag—a big-league game of "put and take". If the heat becomes so great as to endanger the brick lining of the shell, the skimmer signals the craneman to bring a pot of scrap to cool off the charge a bit. And as the amount of iron sulphide in the charge diminishes, the skimmer shortens the length of each blow to avoid burning sulphur out of the copper and nickel sulphides; by then his converter is said to be on "high charge", almost ready to be "finished up".

The final stage of the converting process tests the skimmer's ability to the utmost, for everything he does from now on has a direct bearing on the quality of the final product. Every skimmer has his own little private set of signs for which he watches at this time — the appearance of a punch bar as it is withdrawn from a tuyere, the look of the slag, the flame temperature in the shell — these and other indications tell him when to turn down his converter to skim off the last slag before casting his finished charge of copper-nickel sulphide.

The cycle has taken about 36 hours. During that time the converter has received about 40 ladles of reverberatory furnace matte and has given up some 25 pots of slag. Its 75 tons of finished matte is cast and conveyed to the next department of the smelter for separation of the copper and the nickel sulphides.

Operation of the converters handling matte from the copper reverberatory furnaces is much the same as that of the nickel converters, except of course that the skimmers have an entirely different set of conditions with which to cope. The furnace matte received here is blown to blister copper which is cast into ladles and poured into basic-lined hot metal cars with a capacity of 70 tons each, for transport to the Copper Refinery.

Mechanical and electrical maintenance crews and other auxiliary services function smoothly along with the operating department to make Copper Cliff Smelter's great converter aisle a remarkably efficient section of Inco.

Machine Shop Again Champions of Athletic Association's Softball League

Swamping their opponents 10-1 in the final game, Machine Shop again walloped their way to victory in the playoffs of the shift softball league sponsored by Copper Cliff Athletic Association. Warehouse made a close thing of it in the first two games, tieing one and losing the second 7-6, but then came the deluge.

Umpire Maurice Kinkley earned eoniums for his smart handling of the series.

MACHINE SHOP: front row, left to right, Gino Gaetano, Mike Rossi, Doug Gathercole, Charlie O'Riley, Art Van Allen, Art Wulff, Harry Rider (manager); back row, George Renaud, Dick Dobson, Harry Bellay, George Trezise, Jack Gladstone, Ken Glynn.

WAREHOUSE: front row, Red Dunn, Ed Desotti, Yacker Flynn, Jack Pearson, Charlie Rafuse, Pope Bray (coach), Billy McDonald; back row, Mac Dunn, John Strong, Joe Sauve, Gord Kennedy, Barnard Leclair, Lawrence Kavanaugh (trainer).

Gord Wilson and Joe Jones Winners

Mel Marshall, Veterans Land Act administrator in Sudbury, announced the names of winners in the annual small holding competition for Sudbury district veterans established under the VLA.

The competition was held in two parts — one for small holdings of one acre or more and the other for properties under one acre.

Gordon Wilson, Long Lake Rd., won first prize in the one acre or over class, while Joseph Jones, of Garson, hit first spot in the class for small holdings under one acre.

Other prize winners in Wilson's group were A. J. Belanger, Highway 17 East; P. C. Butler, Navonod Rd., Neelon township; E. C. Denis, R. M. Llewelyn and H. W. Davidson, all of Highway 17 East; A. P. Clinton, Navonod Rd; A. J. Barlow and W. B. Walker, Highway 17 East.

In Jones' group, winners were M. E. Ten Eycke, New Sudbury; R. E. Hiscock, MacFarlane Lake Rd.; J. P. Griss, H. L. Cole and A. Mooney, all of New Sudbury.

The small holdings were judged for agriculture, general landscaping, house and buildings.

TAKING NO CHANCES

A farmer and his wife walked from their farm to a fair, the wife laden with a heavy lunch basket. On arrival the farmer turned considerately to his wife and said: "You'd better let me carry the basket now, Jill; we might get separated in the crowd."

Institute Branch Now Has Membership of 500

More than 350 members of Sudbury Branch, Canadian Institute of Mining and Metallurgy, turned out to the meeting at which John Fisher of the CBC was the speaker. The branch holds about eight meetings during the fall and winter season, featuring both technical and non-technical programs. It has a membership of approximately 500. Officers are as follows: chairman, J. C. Parlee; vice-chairman, F. F. Todd; secretary-treasurer, D. Fraser; executive members, Don Munn, Frood-Stobie; A. Massey, Creighton; R. Lockhart, Garson; R. Fraser, Levack; C. F. Foster, Frood-Stobie; R. Brown, Murray; R. Wainwright, Falconbridge; A. Smith, Copper Refinery; F. G. Murphy, Coniston; A. MacCallum, Sudbury District; Len Morden, Open Pit; A. Harcourt, Copper Cliff.

AT SMELTER FOR 36 YEARS

"Army" Longarini isn't worrying about having time on his hands now that he's retired on pension. With 11 grandchildren he just automatically went into the baby-sitting business the day he punched out for the last time at Copper Cliff Smelter. He doesn't expect to show much of a profit in his new undertaking but it's work he enjoys and there are many other things in life besides money.

MR. AND MRS. LONGARINI

The boys in the converter building presented the popular old-timer with a well-filled wallet on his retirement, and also gave Mrs. Longarini a handsome purse. "Army" indicated to the Triangle that the contents of the wallet have since been transferred to the purse, as well they should be in any home as happy and well-run as the Longarini menage.

Christened Ermeto on his birth in Italy on September 30, 1887, "Army" as a young man worked as a bricklayer before coming to Copper Cliff in 1904 to join his father Adamo, who had been employed at the smelter since 1901. Unfortunately he broke his service twice before finally settling down at the Cliff in 1914, but even at that he rolled up the fine credited total of 36 years and seven months. At the smelter he has worked in the yard, on the blast furnace bins, on the copper holding furnace, and latterly as clean-up foreman around the copper converters.

He spent two years in Italy from 1907 to 1909 and apparently got in some good promotion work because Adela Battisti came over to Copper Cliff in 1912 to marry him and make his life happy ever after. Members of their family, all of Copper Cliff, are: Lido, electrician; Mefalda (Mrs. Enio Camalucci), Nello, in the coal business, and Elvino, of the car shop.

PARLOR LANGUAGE ONLY

Father—Well, Willie, what did you learn at school today?

Willie (proudly)—I learned to say "Yes, sir" and "No, sir" and "Yes, ma'm" and "No, ma'm."

Father—You did?

Willie—Yeah.

JOHN SUORANTA ON SURFACE AFTER 40 YEARS OF MINING

IT'S THE EASY LIFE FROM NOW ON FOR MR. AND MRS. JOHN SUORANTA.

After a solid 40 years of mining, during which he worked underground at Copper Cliff, Frood, Creighton, Levack and, for two brief intervals, in the Porcupine camp up north, John Suoranta has hung up his hard hat and reached for a fedora. It's time, he thinks, to soak up some sunshine. He retired on Inco pension October 1 with the enviable credited service record of 25 years and eight months.

It was at Copper Cliff No. 2 that John got his mining baptism as a mucker shortly after his arrival in Canada from Finland in 1912. In later years he was to become one of that band of skilled, hard-driving miners who specialized in shaft sinking and who developed a tradition in the Nickel Belt for speed and efficiency in this kind of work. Among several shafts he helped to sink was the famous Frood No. 3, which was collared in the summer of 1926. In the later years of his service he was employed on underground construction work at Frood-Stobie.

He was married at South Porcupine in 1922 and has one daughter Allie (Mrs. J. A. Smart) of Sudbury.

John has bought a house on Long Lake and is now working like a beaver at completely remodelling it; he plans, he says with a grin, to establish a small ranch on which there will be only enough work to keep his wife pleasantly occupied.

To John Suoranta, as to all the other old-timers whose hard work has been largely responsible for the position of world importance it occupies today, the nickel industry bows deeply in gratitude and respect. May he thoroughly enjoy the ease and security which have been planned for him as a well-earned reward.

STARVATION WAGES

A farmer in great need of extra hands at harvest time finally asked Si, who was accounted the town fool, if he could help out.

"What'll ye pay?" asked Si.

"I'll pay what you're worth," answered the farmer.

Si scratched his head a minute, then answered decisively:

"I'll be durned if I'll work for that!"

LOOK!

Look at the faces of those you love.

Look at life reflected in their changing faces. Watch them for just a few minutes, and you realize how tough it would be not to be able to see them.

Look at the sky.

Look at your lawn, green in the summer, white in the winter.

Look at the seasons as they march through the trees.

Look at the luring road ahead of your car. The movies, magazines, sports.

Look at your work. . . . By the way, did you forget your goggles?

BEHIND THE 8-BALL

Auto Tourist: I clearly had the right of way when this man ran into me, and you say I was to blame.

Local Officer: You certainly were.

Autoist: Why?

Local Officer: Because his father is mayor, his brother is chief of police, and I go with his sister.

TESTING FOR LEAKS

The barber had cut him, nicked him, and gashed him.

"Give me a glass of water, please," gasped the victim.

"You aren't going to faint, I hope?" asked the barber in alarm.

"No," replied the victim, "I just want to see if my mouth still holds water."

FAMILY OF 14 GIVES HAPPINESS TO CONISTON PAIR, 30 YEARS AT INCO

MR. AND MRS. OVILA LALONDE OF CONISTON

One of those fine old-fashioned families is the proud accomplishment of Mr. and Mrs. Ovila Lalonde of Coniston. They have 14 sons and daughters and, at the latest count, 24 grandchildren. Needless to say Christmas at their home is a wonderful reunion that produces enough delightful memories to last all the rest of the year.

Members of their family residing in Sudbury District are: Lawrence., employed at Copper Cliff Smelter; George, of Coniston Smelter; Lucy (Mrs. Ernie Matte of Gatchell); Gatien (Mrs. Wilf Leclair of Gatchell) Irene, nurse at St. Joseph's Hospital; Jeanette (Mrs. Milton McLaughlin of Coniston), Cecile (Mrs. L. Tessier of Coniston), Angeline, employed at Simpson's in Sudbury, and Louise, attending school in Sudbury.

Ovila Lalonde first started with the Mond Nickel Co. at Coniston in 1915 but he broke his service in 1919 to take a whirl at farming in the bush near Hagar. He returned to the job at Coniston in 1922 and remained there until his retirement this month with the excellent credited service record of 29 years and 10 months.

Born at Clarence Creek, below Ottawa, in 1887, he came with his father to St. Charles at the age of 15 and for the next 13 years was employed at sawmills and lumber camps in the district and also with retail lumber yards in Sudbury. Many times he took part in the log drives on the Spanish and Wanapitae Rivers.

He was married in 1912 to Aldina Levert, whose family had been residents of the St. Charles district since the turn of the century. The Triangle joins their wide circle of friends in wishing them a long and happy retirement.

Coniston Had a Great Season in Senior Baseball

Double-dyed champions of Nickel Belt senior baseball in 1952, winning both the league title and the playoffs, Coniston Red Sox earned the admiration of every fan, no matter how staunch his personal team affiliation. They had strong pitching and hitting, and they played clean, heads-up ball all the way. They were worthy winners of a tough league. And here they are: front, the mascots, Butts Blake and Peanuts Gosselin; bottom row, Oscar Paradis (secretary-treasurer), Paul Moulaison (shortstop), Burton Boyd (catcher), Jim Milne (2nd base, captain), Clarence Fox (1st base), Theo Fitzgerald (manager); middle row, Bill Core (2nd base), Mort Berry (left field), Lou Moulaison (pitcher), Snell Blake (coach), Keith Boyd (pitcher), Maurice Laprairie (scorer); top row, Neil Asselin (centre field), Vic Boyd (left field), Ray Mulse (pitcher), Andy Halverson (right field), Murray Veno (3rd base), Russ Doucette (asst. coach). Not shown, Andy Barbe, Ron Paquette, Steve MacLellan.

Red Sox Take Both Trophies

For the third time since it entered Nickel Belt senior baseball competition in 1936, Coniston this year fought its way to the championship and the Ambrose Monell Trophy. After a thrilling semi-final series in which they had to go all out to beat Frood Tigers, the Red Sox racked up a decisive victory in the finals, turning back Copper Cliff Redmen four games to one.

Coniston served notice of its playoff intentions by finishing on top in the regular league standing with 22 wins against eight losses, a 4½-game edge over second-place Copper Cliff. Thus its 1952 bag of booty also includes the handsome new DeMarco Brothers Trophy for the league leadership.

Jerry Girard of Creighton received the Wiggy Walmsley award for the league batting championship and also the Charlie Roffey watch for the most valuable player. Norm Johnson of Frood collected the Joe Blais watch for hammering the most home runs, eight, a league record. Gord McQuarrie of Copper Cliff, and Tom Howe of Creighton tied for the Frood Hotel pitching trophy, and Billy Demkiw, Frood outfielder, won the Yolles Men's Wear prize for the most runs batted in.

Trophies and prizes were presented at the big annual banquet of the Nickel Belt Senior Baseball League, arranged by Secretary Jerry Mahon at the Nickel Range Hotel. George Collins, president of the loop, was master of ceremonies.

26 Years at Mine, Never Underground

Louis Verilli was employed at Creighton Mine for 26 years but he has never been underground. A man who has always worked out of doors, he hasn't the slightest desire to see what goes on in a mine. "When they put in windows down there, let me know," he says. "Then I might go down."

Soon after he came to Canada in 1906 Louis started as a trackman with Algoma Central Railway out of Sault Ste. Marie. He became a section foreman, switched to jobs with the CNR and the CPR, then worked for the Algoma Eastern. He joined Inco at Creighton on New Year's Day of 1926 as a member of the surface gang and throughout his employment was assigned to track maintenance and other work around the yard.

During a two-year visit to Italy Louis was married in 1922 to Marina Martini. They have two sons, Pete of Toronto and Nino of Creighton.

Louis is looking forward to the leisure now allowed him by his Inco service pension. "The compressor and the airlines are maybe not like new," he says, "but I'm good for quite a few years yet."

MR. AND MRS. LOUIS VERILLI

Consistent Winners at Creighton

When Bill Oja moved to his present home at Creighton 10 years ago, the grounds were part of a swamp and gardening prospects looked bleak. But Bill and his wife went to work with determination and skill, soon had the place transformed into a real beauty spot. They have been consistent winners of top awards in Inco's annual gardening competition. Picture shows them with their little granddaughter Ella, 19 mos. old.

Agricultural Dept. Announces Annual Awards for Gardens

Continued improvement in home surroundings, particularly at Levack and Coniston, was noted in the report of George Kemp of Sundridge, judge of Inco's annual garden competition. Levack collected a total of 61 prizes this year as against 54 in 1951, and Coniston received 30, an increase over last year of three. Murray Mine is represented in the prize list this year for the first time. Awards were as follows:

Copper Cliff, Class 1

H. Stavang, 33 Evans, $20; E. McKerrow, 13 Power, $15; T. Wheatley, 37 Evans, $10; Ed. Fosten, 30 Power, $8; Mike Sharko, 21 Orford, $8; Alton Browne, 1B McKeen, $7; A. Nickle, 4 Kent, $6; E. Tigert, 5 McKeen, $6; Wm. Zinkie, 6 Oliver, $6.

Awards of $5 each to: Stanley Martin, 16 Orford; I. Klassen, 26 Nickel; J. McQuillan, 41 Evans; G. Lane, 20 Cliff; Frank Matte, 7 Power; O. Thom, 15 Power; J. L. Cleary, 7 McKeen; Hugh Allen, 101A Balsam; F. Liseicki, 19 Orford; A. A. Watson, Union; Ross Clark, 4 McNivan; Gordon Harry, 22 Oliver; Robt. Bell, 12 Oliver; Ron. Heale, 14 Cliff; H. Heron, 86A Balsam.

Copper Cliff, Class 2

W. W. Chapman, 6 Kent, $20; J. B. Stone, 9 Cliff; $15; E. Stoddart, 10 Jones, $10; W. Rogers, 3 Market, $8; A. Stoddart, 8 Clarabelle, $7; L. Hamilton, 5 Clarabelle, $7; C. B. Matthews, 44 Finland, $6.

Awards of $5 each to: F. Steadman, 5 Cliff; H. Fletcher, 1B Orford; H. Olshanskey, 47 Poplar; H. A. Digby, 7 Balsam; Jack Fox, 14 Jones; H. L. Kruger, 14 Balsam; M. J. McDonell, 51 Poplar; Geo. Burns, 2 McNiven; G. Longerini, 38 Diorite; J. Davidson, 9 Union; J. R. Clark Jr., 6 Granite; John Livingstone, 18 Orford; Jas. Fynn, 84A Balsam; A. J. Simmons, 12 Cliff.

Creighton

Wm. Oja, 2A George, $20; E. Kaukonen, 10 Victoria, $15; J. C. Currie, 11 Wavell, $10; Chas. Platt, 63 Wavell, $8; Clifford Briggs, 57 Wavell, $8; Gordon Luck, 59 Wavell, $7; C. Johnson, 33 Wavell, $6.

Awards of $5 each to: J. Thomas, 37 Wavell; J. Koskinen, 18 Alexandra; E. McMullen, 19 Wavell; A. Maenpaa, 14 Grey, K. Suutarinen, 20 George; R. A. McAllister, 19 McNaughton; Douglas Brown, 13 Wavell; C. Drennan, 24 Wavell; C. Harley, 34 Wavell; R. L. Hawkins, 16 Churchill; E. Smith, 21 Churchill; Norman Reid, 20 Churchill; A. Koskela, 62 Wavell; H. Grant, 10 McNaughton; A. Massey, 20 Wavell; R. Ledingham, 14 Churchill; H. H. Smith, 15 Churchill; F. Peacock, 9 McNaughton; J. H. Douglas, 17 Wavell; Harry Narasnek, 13 McNaughton; J. Craigen, 15 Wavell; W. H. Barmcoot, 17 McNaughton; R. Stephenson, 35 Wavell; J. Nicholls, 24 Lake; L. Gilmour, 45 Wavell; Leo McLaughlin, 34 Alexandra; H. Bobbie, 51A Wavell; E. A. Mosher, 51B Wavell; L. Brownlee, 47 Wavell; Arvo Turri, 49 Wavell; W. Lepista, 8 Victoria; W. Lenholm, 12 Edward; N. McDonald, 6 Victoria; W. McKee, 19 Churchill; J. E. Keeves, 43A Wavell; H. Farrell, 11 Lake.

Levack

Ed. Hilton, 14B Sixth, $20; W. Gunn, 21 Third, $15; W. O'Neill, 30 Church, $10; J. Austin, 36 Church, $8; Lloyd Davis, 38 Church, $8; F. Spencer, 39 First, $7; J. D. Wright, 52 Third, $6.

Awards of $5 each to: E. W. Mayhew, 72A Nickel; W. Bushnell, 14A Sixth; J. C. Shellington, 19 Third; A. H. Palmer, 48 Cedar; J. H. Kennedy, 37 Cedar; H. Schneider, 33 First; R. Bouclin, 50 Third; W. G. McGowan, 40 Third; R. E. Gross, 52 Pine; J. Ribic, 37 First; A. Cucksey, 8 Third; E. W. Gilchrist, 28 Church; W. J. Hykins, 50 Pine; Fred Bishop, 20 Fourth; A. Lefebra, 44 Mountain; Nerlin Briese, 21 Fourth; G. Ruller, 28 First; D. D. MacNeill, 53 School; G. Thrall, 40 Mountain; Walter D. Kennedy, 18 Third; Frank T. Crome, 7 Riverview; W. Wirvryzn, 24 Nickel; R. C. Gonmoll, 42 Church; P. Miller, 51 Third; M. Palij, 30 Cedar; W. Clarke, 62 Nickel; John Langiu, 55 Third; R. Lauzon, 18 Fourth; Burton Conley, 41 Third; R. B. Moir, 24 Fourth; D. Gallant, 20 Third; A. Mehagic, 6 Third; L. Fay, 35 First; W. A. Pretty, 19 First; D. Yahnke, 17 First; J. D. Rollins, 11 Riverview; Cecil Von Klein, 15 First; C. Terry, 12 Riverview; E. Taylor, 16 First; K. Belter, 5 Riverview; Albert H. Hague, 40 Nickel; N. Allen, 42 Nickel; A. H. Dane, 44 Nickel; A. H. Montgomery, 49 Spruce; G. McCue, 38 Spruce; Alec Dedur, 52 Cedar; M. Koski, 49 Balsam; Henry Roy, 52 School; Alf. Armstrong, 40 Church; R. Judgate, 25 Church; H. Klitzgard, 23 Church; K. M. MacLeod, 10 Riverview; Roy Hanson, 28 Fourth; J. Dixon, 38 Third; Gordon Tullock, 53 Third.

Coniston

A. Blake, 21 First, $20; J. L. Rogerson, 30 First, $15; Geo. Chisholm, 36 Concession, $10; Mrs. P. Johnson, 76 Edward, $8; A. Gobbo, 45 Third, $7; W. Patterson, 46 Third; $6.

Awards of $5 each to: F. M. Aggis, 43 Second; Carlo Chezzi, 43 Third; J. Metcalfe, 19 Balsam; E. Orendorf, 16 First; Fred Spencer, 26 Second; Agnes, Colquhoun, 17 Balsam; Dan F. Totino, 49 Third; R. J. Conlon, 27 Third; J. C. Prevost, 18 Third; R. Muirhead, 23 Balsalm; Ed. McKerral, 34 Second; T. Tancredi, 21 Third; G. L. Geoffrey, 16 First; Oscar Paradis, 31 First; X. Lalonde, 23 Second; L. Pilon, 36 Second; W. Johnson, 15 Balsam; G. Paquette, 30 Third; R. Chisnell, 30 Fourth; R. Balantyne, 43 Fourth; E. A. Bracken, 29 First; D. Slimmons, 41 Third; Leo Martin, 39 Third; Felix Belanger, 25 Third.

Murray Mine

Norman Creet, $10.

Huge Hammer Forges Ingots

A new steam-operated hammer that literally floats on a concrete raft in a concrete basin has just forged its 15,000th ingot at the Huntington, W. Va., Works of The International Nickel Company, making a total production for the hammer of 75,000,000 pounds.

Details of the design and construction of the mounting are so new that they have been previously withheld until the development had proved its value in service.

Much of the production to date has been forgings of the high nickel alloys used for jet engine parts and other heat-resistant applications. The strength and toughness of these materials are such that they pose special forging problems not common in the production of the more widely used industrial metals such as steel, or the softer materials such as most of the copper-base alloys.

With an over-all weight of 521 tons, this modern prototype of the old-time village smithy—about three stories high—converts huge nickel alloy ingots from the melt shop into workable forms for further processing as sheet, strip, rod, wire, tubing, and other commercial forms. An elaborate arrangement of springs eliminates ground vibration which reduces maintenance costs throughout the plant as well as in the forge shop.

The Huntington installation marks the first time this novel type of foundation has been used for a steam-forging hammer. It represents a joint development by vibration and other technical experts in this country and abroad, as well as by the engineering staff of the Huntington Works.

On a tour of Sudbury's splendid new public library, with the librarian, Miss Isabel McLean, as guide, are three Inco men who have helped make the dream of the new building come true. John Quance of Copper Cliff Mechanical Engineering (trying out one of the children's picture-book tables, just to remind him of his school days) and Bob Hall of Frood-Stobie Mine Engineering, gave valuable assistance in the campaign for the furnishings fund; Al Northwood (right) of Copper Cliff Accounting serves as a member of the library board.

New Sudbury Public Library Is Symbol of City's Cultural Progress

In an impressively beautiful home of its own on McKenzie St., Sudbury Public Library has settled down to be of broader use to its community. Eloquent of the cultural ambition of the city is this artistically designed building with its spacious rooms and halls, its rich appointments, its well-developed educational services, and its provisions for future expansion.

The new library has about three and one-half times the floor space of the previous quarters on Cedar St. The north wing contains the main reading room and the French section. The central hall is reserved for the collection of young people's books and also the collection for New Canadians, as well as displays of newer books. Off the main hall is the audio-visual section with its selection of 1,900 records and its film service, the latter including a preview room where films are screened and projectionists are trained. Also off the main hall are the various administrative offices. Downstairs is the large children's room, with the attractive story hour room in connection; here every Saturday afternoon groups of youngsters ranging from pre-school age up to 11 or 12 hear recorded music stories and enjoy puppet shows.

As yet unfinished is an auditorium for which are planned a stage and dressing rooms; with a seating capacity of 300 it will be of inestimable value in encouraging little theatre and music groups, arts and crafts, and other cultural expressions of the community.

During the first three days after its official opening the new library registered 299 new adult members and 185 new children. On the first day in the boys' and girls' section 1,000 books were issued. Now the library has more than 12,000 subscribers. On its shelves it has about 30,000 volumes, a good start toward the recognized minimum requirement of one and one-half per capita.

The charming librarian, Miss Isabel McLean, holds a B.A. from the University of Saskatchewan and a Bachelor of Library Science from Western Reserve University in Cleveland. She is now studying for her master's degree in Library Science from the University of Illinois.

The staff of eight full-time employees and five part-time will undoubtedly have to be increased as "business" picks up.

Its benefactors, past and present, could feel only the greatest satisfaction with the new Sudbury Public Library and its capacity for constructive service now and in the future.

"CLEM" WAS A GLOBE-TROTTER

An interesting career which took him to many parts of the world has ended in retirement at the age of 64 for Henry Clements, chief electrician at the Copper Refinery, whose ill health unfortunately forced him to ask for a disability pension. His co-workers at Inco sincerely hope that complete rest will result in a substantial improvement in his condition.

"Clem" Clements, as he is known at the Copper Refinery, was no respecter of distance in his younger days. In his search for experience and adventure he came to Northern Ontario in 1911 from his home in England and was employed by the Northern Ontario Light and Power Co. at Cobalt. He went to Gaspe to work for the St. Lawrence Pulp and Lumber Co. He returned to Great Britain, spent some time at the dockyards at Glasgow, and then was off to the gold mines in South Africa. He went back to England to continue his studies at school but was soon aboard ship again, bound for Brazil to work on a hydro-electric project. Two years later, in 1921, he headed for Northern Ontario once more to locate with a power company at Timmins. Then he was away again, this time to Chili as an electrician for the Chili Copper Company. Another journey to England was his next step, to enter Sheffield University for a year to complete his studies for his electrical engineering degree.

Construction of the Copper Refinery was under way in 1930 when, on August 12, Henry landed a job as an electrician. Within 10 days he was shift foreman and the following year he became chief electrician, the post he held until his retirement.

"Clem" was married in England in 1918. He and Mrs. Clements have moved to Montreal to be near their daughter Gladys and her family.

Almost 150 men from the Refinery attended a farewell party for "Clem" at the Caruso Club, at which Mechanical Supt. R. Rodger presented him with a gold watch on behalf of the gathering, together with other articles which will be useful for any further global wanderings he may undertake. He will be greatly missed by all his friends.

Breaking Up a Threatening Manoeuvre by Lions

A dramatic moment in the Charity cup playoff between Italia and Ukrainian Lions at Queen's Athletic Field as the Italia goalkeeper, Ennio Bortolussi, rushes from his nets and leaps high for the ball to break up a threatening play. Lions, who won this match, were a late entry in the thriving Sudbury District Football Association; their lineup was composed of surplus players from the Ukrainian Society's first-string team, Sitch.

SITCH TAKES CHARITY CUP

In a thrill-studded game at Queen's Athletic Field before a crowd of 1,200, Ukrainian Sitch defeated the Croatian Adria eleven in the final of Sudbury District Football Association's Charity Cup series.

Most coveted of local soccer's trophies, the Charity Cup goes to the winning team of elimination tournament in which all teams in the league compete. Proceeds of the series go into the injured player fund.

The only goal of the game came in the first half when Ujeko Masina picked up a long pass from centre field, beat the defence, and went in alone to score.

A much-touted battle between Sitch and Polish White Eagles in the league championship scramble ended rather unsatisfactorily when Sitch refused to continue after a second goal was scored against them in the second half of the match. The decision was awarded to the Eagles, whose two goals were netted by Malik and Malinowski. Outstanding feature of the game was the work of the two goalies, Tino Cerri of Eagles and Ted Semeniuk of Sitch.

With the most teams and some of the biggest crowds in its history, Nickel Belt soccer really went to town in the season just closing.

FRUSTRATION DEPARTMENT

PROBLEM

In a faraway land there dwelt two races. The Ananias were inveterate liars, while the Diogenes unfailingly told the truth. Once upon a time a stranger visited the land, and on meeting a party of three inhabitants inquired to what race they belonged. The first murmered something that the stranger did not catch. The second remarked, "He said he was an Anania." The third said to the second, "You're a liar!" Now the question is, of what race was this third man?

SOLUTION

Every inhabitant was bound to say that he was a Diogene—the Diogenes because they were truthful and the Ananias because they were liars. Hence the second man's assertion must have been false, and since the third spoke truly he was a Diogene.

EVERYBODY'S MIXED

Messrs. Jones and Smith, professors of entomology, were so intent on a discussion of wing patterns on grasshoppers that they didn't notice the train until it was pulling out. They both dashed for it, but only Jones caught the train. An acquaintance said to Smith: "Don't feel too bad, Professor, there'll be another eastbound train this afternoon."

"Oh, I don't care for myself," the professor puffed, "but I hate it on account of Jonesy. He just came down to see me off."

A GRIM OUTLOOK

A new father was looking at the babies through the window of the infant ward, and it seemed that every baby was crying.

"Why are they bawling?" he asked the nurse.

"Listen," she said severely, "if you were only a few days old, without any clothes, no job, and owed the government $1,700 on the national debt, you'd be bawling too!"

FROOD-STOBIE MIDGETS, Nickel Belt champions: front row, George Thirkill, Dan Povkowich, Sammy Bileich; second row, Rolly Talbot (trainer), Jack Dube, Bobby Douglas, Jerry Gorman, Jim Thirkill; back row, Eldred Dickie (manager), Bob Sauve, Bryan Watkinson, Jim Gorday, Joe Furac, Nicky Susterich, Marty Puro, John Napran (coach). Not shown, Joe Avbar, Jerry Brannigan, Billy McKinnon, Albert Elliott.

FROOD-STOBIE JUVENILES, Nickel Belt champions: Mascot Mike Hickey and, front row, Bill Jones, Pentti Hilronen, Murray Fleming, Roman Dubinski, Jack Bassallom; back row, Rusty Deschamps, Tuds McEachern, Ed Hickey (coach), Andy Paquette, Don Cull, Romeo Beaulieu, Larry Napran, Alex Bodnarchuk, Buddy Petrant.

FROOD-STOBIE JUNIORS, Nickel Belt champions: front row, Albert Vayda, Eddie Marynuk, Johnny Luptak, Jerry Reid, Don Mills; second row, Mel Petrant, John Smith, Don Westrall, Johnny Zimany (coach), Ron Bradshaw, Don Gravelle; back row, Ted Holmes, Don Smith, Bill Yankowski, Joe Garden, Al McAusland.

Frood-Stobie Orange-Black Flying High

In three of the four Nickel Belt baseball leagues where Frood-Stobie Athletic Association sponsored teams in the 1952 schedules, its orange-and-black pennant fluttered proudly from the championship flagstaff at the end of the season.

Hopes for a grand slam were dashed when Coniston eliminated Frood Tigers in the semi-finals of the senior playoffs, but with three titles under his belt Manager Eldred Dickie could count it a pretty fair year. In the Nickel Belt Miner Baseball Association, John Napran's Midgets, Eddie Hickey's Juveniles, and Johnny Zimany's Juniors had all come through with flying colors in their respective divisions.

The members of Frood-Stobie A.A., which supplied the equipment and uniforms, felt mighty happy about the whole thing; besides having themselves an armful of winners, they had made a very solid contribution to youth welfare, and also a substantial deposit in the local "player bank" of the future.

"Hats off to old Dickie" was the word around the mine.

Chairman of Frood-Stobie A.A. is C. H. Stewart, chairman of finance is B. T. King, treasurer is O. E. Penman, and secretary is E. Dickie; the following are directors: Charlie Cramston, Wally McIntosh, Wes Johnson and Bob Hall.

FEMININE FORMULA

"I was 18 when I married, and my husband was 30. He is 60 now, twice as old as he was then. So I'm 36."

HOOFBEATS

Moron: "What did the fast racehorse say to the slow horse when he passed him on the wet track?"

Goon: "What?"

Moron: "Here's mud in your eye!"

CHAMPION TUBERS

Walter Bradburn of Copper Cliff is pictured with some of his big-league potatoes which should raise more than one eyebrow in the championship country out Azilda way. The 14 in the photograph weighed 21 lbs., and Walter had a whole garden full of 'em. He got the seed from his brother-in-law, Wilbert Munroe, of Warren.

Full Speed Ahead on New Housing at Levack

Right on schedule and humming like a dynamo in all departments is the big building program to add 85 new dwelling units for Inco employees at Levack Mine.

Part of a $10,000,000 allocation by the Company over the past five years for employee living facilities, the $1,200,000 Levack project was given the green light by Vice-President R. L. Beattie in June. It is the third housing addition to Levack in four years.

Construction of Levack's new $55,000 curling rink is also well under way, and extensive alterations are being made to the old community hall.

Site of the new homes is in a picturesque evergreen park, and the builders are taking every care to preserve as many of the trees as possible.

Speeding up construction is the system of pre-cutting all building material with a small mill right on the spot. All the homes will be fully modern, insulated, and with plenty of electrical outlets. No two alike will be side by side.

Two new wells have been sunk a depth of 80 feet to augment the town's water supply; each has a capacity of 600 gallons per minute.

NORTH BAY CURLERS COMING

Northern Ontario Curling Association members will have some new competition in their annual bonspiel this year. The North Bay Granite Club has shifted its affiliation from the T. & N. O. Curling Association to the N.O.C.A. for geographical reasons, and will be gunning for the 1952 championships in the local 'spiel, for which Copper Cliff will be the host club assisted by Sudbury and Sudbury Granite.

APPOINTMENT ANNOUNCED

The appointment of F. F. Todd, formerly superintendent of Garson Mine, as asst. superintendent of Inco mines, effective October 1, was announced by Ralph D. Parker, asst. vice-president and general superintendent of mines and smelters.

'Tis the mind that makes the body rich.

NICKEL AND ITS IMPORTANT ALLOYS

Principal Element	Nickel content, approximate per cent	Alloy	Use
Nickel	99.4	Commercially pure wrought nickel	Corrosion resistance; thermal conductivity; radio and electronic tube parts; magneto-striction oscillators; coinage.
	90-99.6	Anodes	Plating
	0.5-6	Wrought alloy steels	Transportation and earth moving equipment; heavy machinery; low temperature applications.
	0.5-5	Cast alloy steels	Heavy machinery; railroad; steel mill rolls
Nickel and Iron	1.6 and 14-36	Alloy cast irons	Heavy machinery; machine tools; automotive and diesel engines; brake drums; corrosion resistance; abrasion resistance
	30-90	Magnetic alloys	Communications; electrical equipment.
	14-28	Permanent magnet alloys	Motor, generator, radio and instrument parts.
	8-27	Non-magnetic alloys	Electrical and magnetic equipment parts.
	5-40	Clad steels	Petroleum, chemical and food processing equipment.
	32-50	Thermal expansion alloys	Chronometer springs; radio; tuning forks; thermostats
Nickel and Copper	2-35	High copper alloys	Instrument and control parts.
	10-30	Cupro nickels	Tubes and plates in condensers and heat exchangers.
	25	Coinage alloy	Coinage
	45	Electrical resistance alloys	Resistance elements, thermocouples
	over 50	High nickel alloys	Corrosion resistance; strength, chemical, petroleum and food processing equipment
Nickel and Chromium	80	Electrical resistance alloys	Heating elements
	2-75	Special heat resisting alloys	Gas turbines and jet engine parts
Nickel and Aluminum	2	Cylinder head and piston alloys	Automotive and aircraft parts.
	1-2.5	Low expansion alloys	Automotive and aircraft parts.
	1	Bearing alloys	Automotive and aircraft parts
Nickel, Copper and Zinc	5-30	Nickel silvers	Flat ware, hollow ware, electrical equipment, telephone equipment; jewelry; zippers, plumbing fixtures, architectural trim
Nickel, Copper and Tin	1-15	Nickel brasses and bronzes	Spring applications, bearings, valves, pumps.
Nickel, Chromium and Iron	6-20	Stainless steels	Corrosion resistance, strength. Chemical, petroleum and food processing equipment.
	1-85	Heat resisting alloys	High temperature applications
	15-60	Electrical resistance alloys	Heating elements
Others	0.5-98	Age hardenable alloys	Corrosion resistance; strength, special equipment
	94-98	Nickel manganese alloys	Spark plugs, ignition tubes
	55-85	Nickel molybdenum iron and nickel molybdenum-chromium iron alloys	Corrosion resistance, strength, special equipment
	85	Nickel silicon alloys	Corrosion resistance, strength, special equipment