



VOLUME 5

COPPER CLIFF, ONTARIO, APRIL, 1945

NUMBER 1

Winter's Final Fling of the Season on the Northern Range



There's breathtaking beauty in the Nickel District when Winter spreads a soft fresh mantle over rock-ribbed ranges, and sculpts whimsical snow-shapes out of bushes and boulders along the winding trails. A bald-headed old crag wears a crest of sparkling white, and the afternoon sun sends long shadows slanting across the slopes, in this scene on the rim of the Sudbury Basin back of Chelmsford. The picture was made early in March after the last big snow.

Canada's 8th Victory Loan Opens on April 23. Our Boys Have the Hun on the Run. Don't Let Them Down Now! INVEST IN THE BEST!



Published for all employees of The International Nickel Company of Canada, Limited.

Don M. Dushar, Editor

EDITORIAL OFFICE: COPPER CLIFF, ONT.

VOLUME 1 APRIL, 1945 NUMBER 1

A Birthday



Twelve months have zipped by since we returned from the West, plump and innocent as a crocus bud but, alas, not nearly so downy on top, and resumed publication of the Triangle after a four-year interval during which it was out of circulation and we were doing our level best not to be the same. So it's a birthday.

In the issue of April, 1944, Vol. 4, No. 1, here was the leading editorial thought: "It's good to be back at this job, 'covering' one of the most interesting industrial beats in the world and working with some of the finest people it has yet been our privilege to meet." Well, that thought still goes as far as we're concerned, if not more so. As our mutual friend Bill Shakespeare rather neatly put it -- "Age cannot wither her, nor custom stale her infinite variety."

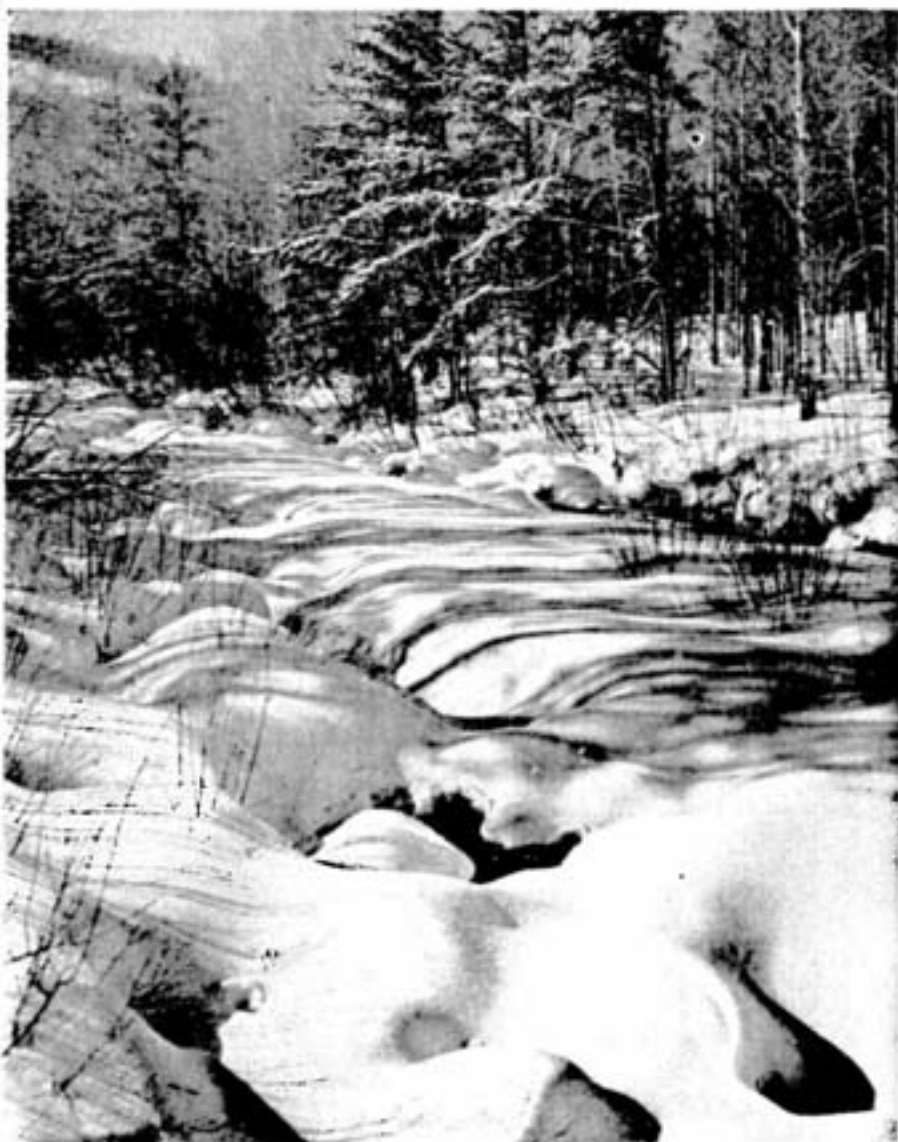
For the journalistic crimes we have committed during the past year we are properly contrite. For the splendid co-operation we have received we are deeply grateful, and in this connection we'd like to distribute a few bouquets to the people who have a hand in the mechanical end of producing the Triangle. Our thanks go to Roy and Bill for assistance photographic; to Messrs. Allan and Fyvie for steering us through the treacherous shoals of the paper market; to Paleface for leading us out from behind that 8-ball; to Ann for words of solace on the spiritual side; to King William of Queens for liberties in the composing room; to Jack and Gord for a swell typesetting job; to Steve and

Charlie for slick and speedy make-up; to Ted and George for high-class press-work; to Frances and Pat for painstaking proofreading; to Harry, Bert and Freddie for the final push in the bindery; to the Legg plant for snappy engravings; to Jack Dewar for sundry things; and so on down the line.

If the Triangle has bridged gaps and brushed aside barriers so that INCO people know one another better and have a wider acquaintance with the great organization of which they are a part, then it is doing its job. If it hasn't, there's another year ahead and we'll keep on trying.

In the meantime, help us blow out that candle, will you?

Early Spring on Sand Cherry Creek



Another scene early in March along the Northern Range of the Sudbury Basin, as Sand Cherry Creek responds to the first promise of Spring and here and there pokes inquiringly through the roof of its winter prison.

NEVER MISSED A MEETING

James Lincoln Ashley, 75, director of the International Nickel Company of Canada, Limited, died recently, in New York.

Mr. Ashley formerly was secretary and treasurer of International Nickel of Canada and vice-president and treasurer of the International Nickel Company, Inc., a United States subsidiary. At the time of his retirement in December, 1939, he was the only person in the organization who had attended in an official capacity every annual meeting of the present and pre-deceased companies since the original International Nickel Company was formed in 1902.

Doing what we please is not freedom, is not liberty; rather, it is the abuse of true liberty and freedom.

Do not say all that you know, but always know what you say.

—Cardinal Hoes.

—Cicero.



THREE MORE GUIDE GROUPS FACE CAMERA

As the Triangle camera moves along the Trefon front, here are three more companies of Girl Guides in which lassies from INCO families receive instruction in that worthwhile movement designed to enrich their lives with knowledge and self-discipline, and prepare them for the responsibilities of citizenship.

Top picture of the layout shows the Creighton Company, which is making excellent progress under the leadership of Miss Anne Christakos, a Guide of 10 years' experience. When Divisional Commissioner Hazel Duncan paid an official visit to Creighton Company last month, no less than 16 new members were enrolled to bring the total strength to 35.

Creighton Company has the unusual distinction of having 18 Girl Guides holding their Second Class badge. To qualify for this certificate a Guide must know and appreciate the 10 Guide Laws and the six Health Rules; she must have a knowledge of nature study, be able to tie seven knots and prepare a fire in the open, and have a basic knowledge of First Aid. Then she goes on to win her First Class badge, which means among other things that she knows advanced First Aid, can instruct junior Guides in Health Rules, knows the origin and development of the Guide movement, can prepare a full meal, can cut out and finish a garment from a pattern, is able to look after an infant, and can take off on a half-day hike, including preparing a meal in the open, without her mother going gray with worry during her absence.

Seen in the Creighton group are: left to right, back row, Catherine Lane, Donalds Mc Donald, Anne Myerich, Rita Mirasanti, Annie Porena, Mervina Hodgins, Emily Hudich, Jeanne Barbe, Gwen Thomas, Mary Anderson, Margaret McDonnell, Helen Marcantel, Elmer Stefanku. Centre row: Sophia Kucerna, Virginia Turpinen, Astrid Bostrom, Virginia Cardinal, Dolores Brooks, Captain Anne Christakos, Glenns Thomas, Patty Gallagher, Norma McDonald, Shirley Salo. Front row: Sally Zinner, Alice Belous, Erica Damsian, Elizabeth Brennan, Lorraine Mihalchian, Lorna Hodgins, Mary Hefcio, Rita Gulpau, Dorcas Beutons, Jean Anderson, Florence Desjardis.

(Continued on Page 7)



First Efforts to Take Pulse of Mother Earth Were Witchcraft?

Magnetometer Is Modern Way

Sometimes men have sought aid from magic or enchantment by the use of a divining rod, as England often called a "dowsing rod", and in America a "doodle bug" after a little beetle that the southern folk would lure from its hole with a song.

"This strange rod", we are told in the Eve and Keys book on Applied Geophysics, "usually a forked hazel twig, is grasped firmly by the two hands on each side of the fork, and the tip will, with some people only, point upwards or downwards, or become violently agitated when it approaches its quest. It has been used in the search for water, minerals, witches, criminals, hidden treasure, lost animals, and the points of the compass."

The divining rod has been associated with pixies and with fairies, with sorcerers and with witchcraft. In 1692 Aymar used a divining rod to trace down a hunchback criminal, the last man to be broken on the wheel in Europe, and 11 years later employed it to point out Protestants for massacre. Even today it is used by men of unquestionable integrity in search for water, frequently with marked success.

How? Well, how does the mason bee find its way back home, how does the eel return from rivers to the Caribbean Sea, how does the salmon get back to the river of its birth from the ocean? And don't forget migratory birds and homing pigeons, while you're in a doubting-Thomas mood.

However, in 1580 Julius Agricola wrote his fine work "De Re Metallica" (see your Triangle file, 1937) and stated that "a miner should be a good and serious man, and should not make use of an enchanted twig. If prudent and skilled he should follow the natural indications which he can see for himself, and dig." This pithy piece of advice was not lost upon Agricola's descendants in the mining zone, although it was not until the middle of the 19th century that Swedish engineers suggested measuring magnetic properties for the discovery of orebodies, and it was 1904 before



Geologist Percy Sheppard takes a reading from the magnetometer to record Mother Earth's "pulse" at this particular spot in an area which is being explored for nickel-bearing ore. The stake over which the tripod is centred indicates a 200-ft. snark on the base line previously laid out by the survey party. In the background Walter Jarvis and Percy Castonguay clear out a cross line at right angles to the base line.

a treatise was published on the subject in Canada.

In 1928 Eve and Keys wrote: "If we can locate a hidden submarine by its noise, its oil patches, its electro-chemical properties, its magnetic effects, its electro-magnetic effects, or

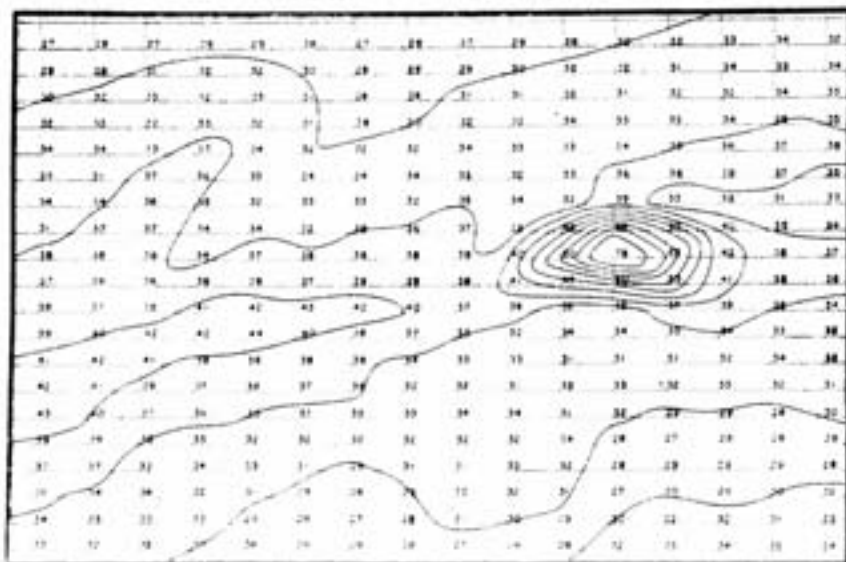
by sound reflected or echoed from it, is there any reason why we should not detect an underground body by some of these methods? Indeed, a mineral vein has one great advantage: it is stationary, and does not move away like a submarine. Once located, we can remain above its neighborhood and study its behaviour under stimulus."

And so modern mining men have their search for magnetic ores upon their known habit of detecting the earth's magnetic field, rather than upon the physical paroxysms of a magician with an "enchanted twig" in his hands.

All of which brings us to the second round in our description of how INCO's geological department is continually seeking new orebodies which will maintain the Company's ore position despite the heavy demand of Allied wartime requirements, and thus ensure our jobs for the future.

Last month we told how the survey party moves in on an area for exploration along the merite contact of the famous Sudbury Basin, the rim of which was outlined back in the '80's because geologists knew merite is the rock with which deposits of nickel are commonly associated. Sighting with their transit and chaining exact distances as they hew pathways through the bush, the survey party gradually spread over the exploration area a huge grid about three-quarters of a mile wide, in which the rectangles are each 200 ft. long and 100 ft. wide. Stakes and pickets are left to mark the corners of the rectangles. Then along comes the magnetometer party, to listen to the "heartbeat" of the vast masses which lie deep below the surface along the merite contact, or its offshoots.

Immediately above the stake or picket left by the survey party to mark the grid station, the magnetometer party set up their instrument



This is what an anomaly looks like on paper. The small rectangles are the 200-ft.-by-100-ft. sections of a survey grid, the numbers represent magnetometer readings, the curved lines are drawn in by the geologists to connect points of equal magnetic attraction. Where the lines run close together there is some unusual condition which could turn out to be an orebody deep beneath the surface.

on a tripod. First the compass is mounted and the magnetic meridian established, after which the head of the instrument is clamped to retain orientation. Then the magnetometer, or dip needle, is mounted so that the needle swings on a plane at right angles to the magnetic meridian. A highly complex arrangement of lenses and mirrors then shows, in degrees, the amount of dip which the needle has taken as a result of the local magnetic attraction, which is the earth's magnetic field plus any unusual magnetic field. The operator takes the reading, marks it in his book along with the number of the grid station, and, picking up his 15-ft. "stethoscope," moves on to the next station.

The magnetometer party are seeking anomalies, that is, abnormal conditions in the earth's magnetic field caused by the presence of magnetic minerals. Very simply, the magnetometer is an instrument for measuring magnetic force. If its reading at a certain point in the exploration area shows little or no difference from the average reading throughout the district, then it has picked up only the normal "heartbeat" of the earth and either there is no orebody in the vicinity or else it is beyond the reach of the instrument. However, should its reading at a certain point show a sharp difference from the average reading for the locality, then the geological department gets busy and discovers what unusual condition is responsible for this big throb in Mother Earth's pulse.

The dip needle is an extremely sensitive instrument. Should the operator be wearing steel-rimmed glasses, or a steel buckle on his belt, it would be about as reliable as a barometer with St. Vitus dance. If there are any electromagnetic disturbances in the atmosphere it is useless. It is carried in a cylindrical metal container and when it is not in use the fine quartz tip on which the needle oscillates is lifted from its bearing surface to prevent jarring.

But, sensitive as it is, the dip needle has very definite limitation. Its effective range depends upon several factors, including the size of an orebody, and the proportion of ore and rock. It is believed to be reasonably effective to a depth of about 1000 ft., although naturally it might pick up the pulse of a big high-grade orebody at considerably greater depth than that.

Magnetometer work is slow, painstaking, may be carried on for a year without discovering anything worthwhile. Steadily the party moves



Ancient and quaint illustration of a mining scene back in the 16th century. Two men are seen using divining rods, or "enchanted twigs" as Julius Agricola called them in his book "De Re Metallica" written in 1580. This mystical means of "detecting" the presence of an orebody is replaced in modern times by scientific instruments such as the magnetometer which measures magnetic attractions.

over the exploration area, taking a recording at each corner of every rectangle in the big survey grid. And each night back at camp they plot the readings on a map after correcting them for changes in temperature which may have affected the movement of the needle. Then lines connecting points of equal magnetic attraction are drawn between the grid stations to complete the magnetic map. Where several lines run unusually close together as a result

of sharp differences in the readings, there they have an unusual condition, or anomaly.

Every anomaly must be thoroughly investigated. So the geological department at Copper Cliff compares the dip needle map with topographical and geological maps of the same area. The topographical map will tell if there is any man-made reason for the magnetic disturbance, such as a power line, a railroad, underground piping, or even a rusted and half-buried old bedspring from some abandoned lumber camp.

If there is no such man-made reason the geological map is studied. First question is the relation of the anomaly to the noise contact. If it has occurred in rocks other than norite and at a distance of more than 200 or 300 feet from the contact, the natural reaction is that it is due to the presence of magnetite, black metallic mineral barren of nickel. However a field examination is made of the outcroppings in the area, and samples of the rock are brought back to the Cliff and crushed. If appreciable amounts of magnetite can be separated from them magnetically, the geologists shrug their shoulders and write the anomaly off as a false alarm.

On the other hand if the anomaly occurs immediately at the noise contact there is at least a 50-50 chance that the magnetic fuss is being caused by pyrrhotite, bronze-colored, lustrous compound of sulphides usually associated with sufficient nickel mineral to be valuable as an ore. Again there is a field examination and a magnetic separation of rock samples in the laboratory, and if the results are promising the geologists rub their hands briskly, smile all over their faces, and proceed to lay out a program for diamond drilling. But that's another story for a later issue.



The magnetometer party pauses for a noon-day lunch while out on the job. Proper clothing and food are of vital importance in the bush.



Refinery and Frood Meet in Parker Finals

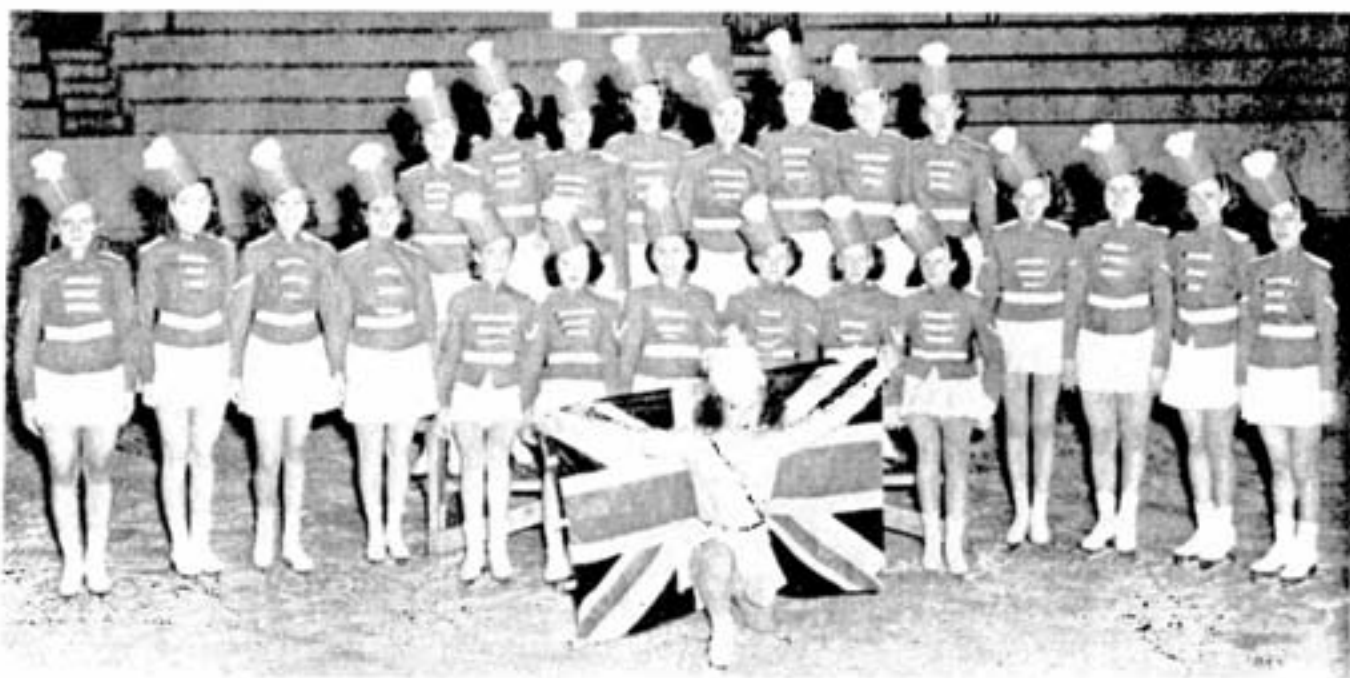
It's Frood No. 3 Shaft and Copper Refinery in the finals for the Ralph D. Parker shield emblematic of INCO interplant First Aid supremacy, and before this issue of Triangle is off the press the new champions will be decided.

Frood, again captained by canny Bill Gaylor, emerged triumphant in a five-cornered semi-final tussle between teams representing underground plants. Refinery, under the leadership of Bill Hott, bested three quartets representing surface plants in the other semi-final. George MacPhail is the Frood coach while Gordon Hubbard master-minds the Refinery squad.

In the run-off for underground honors the problem concerned an accident which occurred just outside a mine collarhouse. In pulling a truck out of the collarhouse a man who has just stepped out of the warm room is struck and pinned to the tails (see Picture 4). One arm is severed at the wrist, one leg is pinned beneath a wheel. The First Aid teams, each representing a toplander and three deck-men, are attracted by the man's cries for help. Their treatment of the patient and the way they answered the oral examinations given them by Tom Coruthwaite determined their standing. Less than 40 points separated the first and fifth teams, the final placing being as follows: Frood, Creighton, Levack, Stobie, and Garson. There was only half



Prepare for 9th Annual Skating Carnival



With 100 people taking part, Copper Cliff Skating Club's ninth annual Carnival on April 13 and 14 promises to be one of the most colorful and successful events Stanley Stadium has seen in years. Picture shows one of the attractively costumed group numbers with which the program sparkles. These girls stage the March of the Wooden Soldiers, with diminutive young Ann Aubin taking the solo spot. Behind her in the first row are, left to right, J. Salo, G. Faddick, J. Adams, L. Hamilton, L. Holliston, M. Gladstone, M. Gillespie, A. Wulff, B. Rowe, P. Bell, R. Faddick, J. Groom and R. Swick; in

the back row are V. Digby, C. Ferguson, L. Labine, V. Acheson, I. Mathe, L. Beaver, J. Mash, and M. Cooper.

Carefully schooled by the club professional, Joe Pope, and backed by the untiring efforts of the various committees, members of the Skating Club are in fine fettle for their annual full-dress show. The ice will be gaily colored to provide the setting for a Garden Party.

Special feature of the Carnival will be the return appearance of the clever Detroit skating comedian, Bill Cross, who made such a hit with the crowds a couple of years ago.

a point different between Levack and Sobie.

In the surface plant semi-final the problem had to do with an accident to a brick-layer in the plant yard at Copper Cliff smelter. The man fell 10 feet from a scaffold, on which he was working, when a plank broke. (See Picture 3). He fell on a pile of building material and several bricks tumbled on top of him, one striking his head. He suffered concussion and moderate shock, a severe laceration in the centre of the cranium, fractured ribs with internal hemorrhage of the right lung. Working swiftly on the patient to keep within the 30-minute time limit, and then taking their oral examinations from Dr. W. B. McGruther of Creighton, the four teams put on an interesting display and finished in the following order: Refinery, Open Pit, Copper Cliff Reverbs, and Coniston.

Dr. H. F. Mowat and Dr. R. B. Harris of Copper Cliff handled the difficult point-scoring assignment for both semi-final contests and are seen in the pictures, poring over their tally sheets as they sum up before announcing the winners. Nobody envies the doctors this job, and everyone agrees they are tops at doing it. While Triangle's deadline forces us to hold pictures of the final contest until the May issue, the accompanying layout shows the teams taking part in the semi-finals:

No. 1: LEVACK: A. Dumres, W. Hegler, Willard Peterson and (standing) Maurice Larulippe.

No. 2: CREIGHTON: Carl Clubbe, Mal Davies, Bill McCormick and (standing) Angus McLeod.

No. 3: REFINERY: Frank Scott and Bill Hornby (seated) and Conrad Smythers, W. J. Bort, and Fred Cooper.

No. 4: GARSON: R. McCauley, Art Bowen, Vic Stone and (standing) H. Sutton.

No. 7: COPPER CLIFF REVERBS: P. J. Forster and Angus Johnston (seated) and J. W. Duchene, H. Goudreau, and M. Bennett.

No. 8: STOBIE: George Hardy, Walter Sturby, Pete Miller and Don McSweeney.

No. 9: OPEN PIT: Ed Peel, Tom Mahon, Lige Beaver and Ray St. Pierre.

No. 10: FROOD NO. 3 SHAFT: Bill Gaylor and W. Stranger (seated) and J. MacKay, Jack Ferguson and Frank Turcos.

No. 11: The four safety engineers responsible for arranging the two semi-final contests and planning the very realistic props which added so much interest for the spectators. Left to right, Tom Kierans of Frood and Wilf Moore of Creighton (nee Garson) who handled the surface plant event; Bob Murray of Open Pit and Tom Crowther of Copper Cliff, who were in charge of the underground show.

No. 12: CONISTON: Veteran First Aider Bill Warwick, who was a keenly interested spectator, and Ralph Taylor (seated) and Bill Bray, Bill Johnston, Joe Meslinski, and Ed. Albert.

At each contest General Safety Engineer George S. Jarrett voiced the sentiments of the audience when he offered hearty congratulations to all team members on their floor work, oral exams, and showmanship, to the hard-working coaches, to the doctors, and to everyone who contributed in any way to the success of the 1945 tests.

CHAMPION KNITTER

Mrs. T. Montgomery has earned the reputation of being Copper Cliff's champion knitter for the war effort. During the past year she completed 84 pairs of service gloves, 35 pairs of mitts, 35 pairs of women's socks, four sweaters, and 18 pairs of plain servicemen's socks.

Girl Guides

(Continued from Page 3)

In the second and third pictures are the First and Second Copper Cliff Companies, enthusiastic groups of Guides very capably led by Mrs. Robert Burford, Miss Naomi Perras, and Miss Isabel McDonald. Guiding has had an active and interesting history in the Cliff since the day back in 1933 when the eight girl members of the Bluebird Club asked Mrs. S. A. Crundall to organize them into the First Copper Cliff Company, which that popular lady promptly and efficiently did.

Seen in the second picture, left to right, back row: Joy Meeks, Ruth Watson, Marilyn Gillespie, Captain Ivy Burford, Marjorie Rowe, Betty Mash, Margaret Jean Simcox; centre row, Ruth Hobden, Marlene Simmons, Lois Harkins, Irene McCandless, Marilyn Beach, Gwen Boyd, Dina Mae Langille, Mary Lou Simcox; front row, Marilyn Martin, Helen Stoddart, Sheila Thorpe, Shirley Austin, Connie Norman, Catherine Flynn.

And in the third picture, left to right, back, Lieut. Isabel McDonald and Captain Naomi Perras; second row, Helen O'Reilly, Maureen Pappin, Marian Kelly, Irene Langlade, Lillian Aubin (Company Leader), Beverly O'Reilly, Priscilla Cavanaugh, Jeanette Langlade, Joyce Hodgins; front row, Kay Hodgins, Maureen Farrell, Margaret Lineham, Barbara Hodgins, Annette Gatten, Dorothy Clements, and Mary Jennings.

Every generation, no matter how paltry its character, thinks itself much wiser than the one immediately preceding it, let alone those that are more remote.

—Schopenhauer.



Frequent Tests are Secret of Our Copper's High Rating with Industry

You know the story about the office boy who went next door one day and telephoned his boss like this:

"Hello, Mr. Smith, I hear you're looking for a new office boy."

"Why no," replied the boss. "We have an office boy."

"Well, are you completely satisfied with him?"

"Certainly," said Smith. "We are completely satisfied with him and are not looking for a new boy."

"Well, that's swell, boss. I was just kinda checking up on myself."

One of the reasons why INCO Copper is so highly regarded on the world industrial market is that the boys at the Copper Refinery are continually "checking up on themselves."

At regular intervals throughout each day's operations special tests are rushed through to make certain that every pound of INCO copper is right up to standard.

Optical Oxygen Determination

One characteristic of "tough-pitch" electrolytic cast copper is the presence of small quantities of oxygen in the order of .01-.05%, which exists as minute particles of cuprous oxide at the crystal boundaries.

Close control of this residual cuprous oxide is the first requisite for the successful production of some forty different sizes of wire bars, cakes, billets, ingot bars, ingots and miscellaneous shapes now cast at the Copper Refining Division.

Oxygen content of the metal can be regulated by variations in melting and pouring technique, but the results of such changes must be deter-

mined by suitable means quickly and accurately to prevent any adverse effect upon furnace operation and to assure that the cast product will meet rigidly enforced specification requirements.

Oxygen control is effected by an optical method perfected in the copper industry many years ago. The photos Nos. 1 to 4 show some of the steps involved in this procedure.

In No. 1 Bud Ruf has just taken a tube sample by cutting the molten stream of copper leaving the pour spout of the electric furnace. He is observing the surface of the metal as it "sets up" in the sample ladle. The tube will be quenched in water to cool it and rushed to the optical oxygen room for preparation of the sample section. No. 2 shows Ken Kersey sawing this section from the one-half-inch-diameter-by-two-inch-long tube. Polishing of this section on a series of rotating graded laps, immediately follows. In No. 3 Russ Howard performs this operation and produces on the area to be examined a polished mirror-like finish. This area is next treated with an etching solution of ammonium persulphate in order to bring into relief the crystal structure of the cast metal. Miss Bertha Orr observes this structure under the microscope, in photo No. 4, at a magnification of 100 diameters, interprets the oxygen content, checks this observation by visual comparison with standard microphotographs mounted in the frame on the wall over the microscope and reports the results to the electric furnace operators.

The complete procedure from taking of the tube sample to final reporting of the result is performed in eight minutes, for each of the

forty determinations usually made per shift for each furnace in operation.

Conductivity Determination

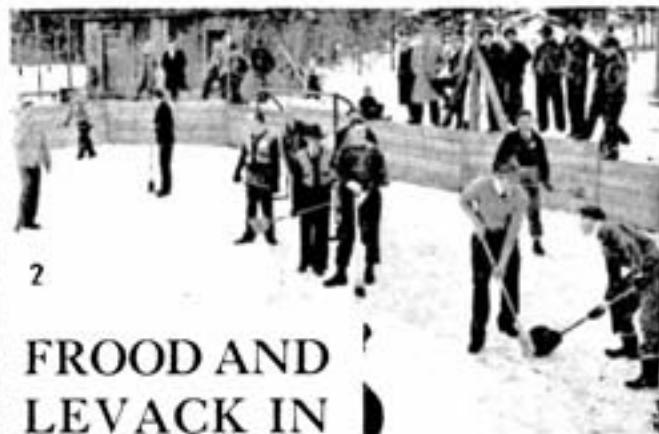
A useful property of the red metal long recognized by the industry is its low resistance to the passage of an electric current. Copper, in this respect, has a lower resistance than any metal with the exception of silver.

Values for this property are usually expressed, in copper refinery parlance, as per cent conductivity for comparison with a standard set up in 1913 by an International Commission.

All electrolytic cast copper shapes produced at the Copper Refining Division meet requirements of the British Standards Institution and American Society for Testing Materials, one of the provisions being a minimum value for conductivity.

Numerous tests are run each day on every production lot of material.

The method for the conductivity determination is shown by photos Nos. 5 to 8. In No. 5 Ken Kersey is seen cutting a three-quarter of an inch slice from a 4 1/4 inch square by 34 inch long vertical cast wire bar. The slice is heated and forged on the power hammer to a rough one quarter inch rod which in photo No. 6 Bill Lajeunesse is holding on the anvil of the hammer. The rod is then "pickled" in dilute sulphuric acid to remove oxide scale resulting from the previous operation and drawn into wire. In No. 7 Romeo Bliss is completing this process. Twelve passes are made on the drawing machine, on each draft the die being changed for one with a smaller opening than that used for the preceding draw. The No. 12 B & S gauge wire produced, which has a diameter of .081" is sent to the laboratory for the final conductivity measurement. Miss Joy Gibson in photo No. 8 will be seen inserting a weighed annealed and polished section into the Hoopes conductivity bridge used for making the determination.



2

FROOD AND LEVACK IN DAY'S MEET

First of what many hope will be a long and profitable series of investments in inter-plant fellowship and goodwill was the program staged on Sunday, March 11, by the Levack Athletic Association.

With some 40 representatives of Frood Mine Athletic Association as their guests, the enterprising Levack people ran off a day chock full of good-natured rivalry at badminton, billiards, bowling, broomball and hockey.

Often called "The Lucerne of Northern Ontario," Levack is ideally endowed by nature as a winter sports resort, and its enthusiastic citizens have plans for more inter-plant activities

(Continued on Page 11)



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10



FRANKIE GRAHAM'S OPEN PIT TEAM AGAIN ON THE CHAMPIONSHIP TRAIL

Hot on the scent of all-Ontario senior hockey honors again this year, Frood Open Pit are locked in a hard-checking playdown series with their old rivals, Hamilton Majors, as we go to press. They trimmed Lakeshore 5-4, 5-2, 8-2, and 15-1 for their third straight Northern Ontario title. Left to right in the picture are: Manager Frankie Graham, Bill Lahti, Pete Kalapaca, Oscar Cloutier, Wilf Lemieux, Mickey Seahan, Alec Singbush, Maurice Gerth, Maurice Vaillancourt, Jim Dewey, Andy Barber, Armand Lemieux, Rollie McLenahan, Dick Halvorson, and Vic Corbell, assistant manager. Inset is Alf Webster. Trainer Alf Kellar was absent when the photo was made.

Frood and Levack

(Continued from Page 10)

next year with the hope that every INCO organization will take part.

Using their handsome big community hall as the hub of operations, the hosts put through a long program which went smoothly and efficiently despite its resemblance to a five-ringed circus. They left nothing undone from the hospitality standpoint, even going so far as to lose a majority of the day's athletic decisions. Early in the afternoon all visitors were guests at a delicious dinner served in the Levack Hotel through the usual genial co-operation of Manager Julian Morel of Northern Catering and Supply, and his efficient staff.

The accompanying picture layout shows some of the big day's doings. In the first snap Al Perham of Levack and Gordon Merriam of Frood are shaking hands after one of the badminton games, which Al won 15-7 and 17-16. The next five pictures are shots during the hockey and broomball encounters, both of which were taken by Frood by close scores.

In No. 7 are three popular Personnel Directors, Bert Meredith of Frood, Wes Peterson of Levack, and Alton Brown of Copper Cliff. The program was arranged by Wes and Bert with the assistance of the Athletic Associations. Alton was there with a watching brief, and vowed that Copper Cliff would be on deck next time with bells on. Frood Athletic hired a bus to send its players to the meet, and Secretary-Treasurer Eldred Dickie was johnny-on-the-spot as chaperone.

In No. 8 are the billiard players, left to right, Bill Soule, Ray Hersperger, and Guy Innes of Levack; Morris Cayen and Wes Eby of Frood; Clair Hanna of Levack.

Levack won the men's five-pin bowling, 3,099 to 2,811, and lost the 10-pin match 2,163 to 2,095. Picture No. 9 shows some of the trundlers: left to right, front row, Frood: Hughie Munroe, Erle Dunn, Frank Crome of Levack who performed yeoman service as official scorekeeper, Ed McIvor, Joe Mulligan, and Johnny Armadani; back row, Levack: Dave Lehto, Bill Kalyk, Tony Ostap, L. Bailey, Eddie Paskoski, Joe Lefleur.

Decision in the ladies' bowling match went to Levack, 2,609 to 2,142. Pictured in No. 10 are the teams: front row, Frood: Ethel Walmsley, Sheila Keegan, Lois Smith, Frank Crome again but by no means a lady, Doreen Scott,

Marjorie Pawson; back row, Levack: Mesdames Shailer, Maillette, Shillington, McCaugherty, Soule, and Jenkinson.

INCO CLUB BOXERS WIN

Down at Pittsburgh on March 5 Cliff Beckett, classy INCO Employees Club boxer, smothered Lou Schwartz of Columbus, O., in the first round of the main event and knocked him kicking.

At Toronto the same night Rollie Angelhart of the INCO Club scored a surprise second-round knockout over Bill Davidge of Port Colborne.

WIN SCHOLARSHIPS

Highlight of the Commencement Exercises at Sudbury Mining and Technical School on March 9 was presentation of the INCO scholarships awarded annually to the four boys with the highest standing in each of the four years of the mining course. Presentation of the \$50.00 awards was made by E. A. Collins to Tauno Lakanen, Grade 9; Arnold Vihuri, Grade 10; Arthur Linnamaa, Grade 11; Pentti Frederickson, Grade 12.



Hockey Stars Gather Titles

Besides the laurels which have been picked up by Frood Open Pit's powerful team on the senior hockey circuit, other titular honors have been won this season for the Nickel Belt.

Copper Cliff Juveniles, an all-star aggregation coached by Gordon Alcott, won their Nickel Belt championship by defeating Sudbury Shamrocks, took out North Bay 6-3 and 14-3, polished off Sault Ste. Marie 6-2 and 15-3, and now go to Timmins for a three-game series to decide Northern Ontario supremacy. The winner will play a provincial championship series in Toronto.

Lineup of the Cliff Juveniles: goal, Bill Origan; defence, Bettio, Telford, Pace, Smrke; centre, Heale, Flynn; right wing, McClellan, Tosato; left wing, Cooney, Disilippo, Kauppi.

After leading the league all season, during which they suffered only one defeat, Engineers were odds-on favorites to cop the Copper Cliff senior league title. Which they did, but not without some stubborn opposition from Freddie Rinaldi's Vikings. In the three-game finals, Engineers found themselves without the services of Dewey and Kalapaca, who were performing with Pit at Maple Leaf Gardens. Vikings swooped on them and hung an 11-7 tag on them in the opening tussle. Led by Nap Carriere and Eddie Redl the Engineers fought back, finally tucked away the title by 3-0 and 9-4 scores in the other two games.

ORATORY WINNER

Speaking on "The Real Menace of Germany", talented Margaret Kearns of Copper Cliff High School last month won the Sudbury District Oratorical Contest for the second year in succession, and placed second at North Bay in the Northern Ontario finals, which she won in 1944. She is the daughter of Mr. and Mrs. Norman Kearns.

PORT VETERAN DIES

Harry G. Ellsworth, long-time resident of Port Colborne, well-known employee of INCO, and authority on ships of the Great Lakes, died on February 21 at the age of 64 after a brief illness. His collection of marine photographs is one of the most complete in Canada.



JUNIORS TAKE SHIFT HOCKEY AT CREIGHTON

Creighton's shift hockey players have packed away the splints and arnica, and hung up their blades after a highly successful season which saw the youthful and aggressive Junior lineup lift titular honors in a four-team league.

To win the Cochrane-Dunlop Trophy for the 1944-45 schedule, Juniors had to weather a tough two-game semi-final battle with Brown's Shift. They won the first tilt 5-2 and held the Brown brigade to a 2-2 draw in the second, total goals to count.

In the other semi-final bracket McAteer's Shift, which led the loop during the regular schedule, ousted No. 3 Shift in a two-game series, coming from behind to wipe out the one-goal advantage the Shafmen set up in the first match.

Then it was Juniors against McAteer's in a sudden-death final which had all the earmarks of a Stanley Cup playoff. With the score tied at 2-2 and only a few seconds to play, right-winger Len Guard fired home the winning tally. It was a great game to win and a hard one to lose.

As usual the successful league was operated by Creighton Mine Athletic Association, of which Jack Connors is proxy, Frank Young is vice-president, and John Woznow is secretary-treasurer. Mickey Stahan, who does double hockey duty by performing with the Open Pir team, chairmanned Creighton's puck activities during the season.

The players all had special words of commendation for the work done during the league playoffs by the referees, Wes Hart and Maurice Kinkley.

Pictured on this page are the four teams taking part in the league:

NO. 1: NO. 1 SHAFT (ADAMS' SHIFT): N. Flora, J. Connors, W. Pentney, W. Chirsky, G. Maki, J. Krystin, A. Kisser, M. McGlashen, J. Sharpe, E. Mosher, P. Dominico, A. Damiani, and N. Silversen (goal).

NO. 2: BROWN'S SHIFT: J. Mitroff, J. Couture, F. Young, N. Loupelle, M. Truman, W. Casper, E. Yomassine, R. Tremblay, and E. Staples (goal).

NO. 3: JUNIORS: O. Oja, E. Hreljac, L. McLaughlin, J. Kozak, L. Goard, D. Dehlipko, D. Myerich, E. Flora, F. Alemany, A. Carbone, W. Siminuk, and A. Diamanti (goal).

NO. 4: McATEER'S SHIFT: F. McAteer, W. Pilon, D. Thompson, J. Currie, C. Dodd, J. French, S. Dobson, M. Stahan, R. Gorman, T. Poster, E. McGarry, D. Lewis, O. Latandre, and G. Briggs (goal).

CIGARET CONCERT AT CLIFF

Mary Miller Mowat and Fonce McCue, gifted vocalists who have given generously of their talent on many occasions for the enjoyment of the public, are among the headliners on a concert program to be staged in Memorial Community Hall, Copper Cliff, on April 12.

Other well-known artists who will appear are Archie Canapini, Vic Chaseltune, Helen Martel, Alice Guola, Nick Haggerty, Sunshine Vera, the McGilvary brothers, and Eddie Saville. Incidental music will be played by Roy Barnes and his orchestra.

The concert will boost the cigaret fund of Copper Cliff Branch of the Canadian Legion, which is at present sending 39,000 cigarets every month to Cliff boys overseas. For every 50-cent ticket purchased, 150 smokes can be dispatched to the lads in the services.



Employees Club Hoopsters Winding Up a Good Season



Five teams have taken part in the basketball league at INCO Employees Club during the season just closing, and the playoffs are entering the final stage as we go to press. The calibre of play has been excellent, and Johnny Woznow of Creighton says you can take it from him that the Club could pick an all-star team which would match baskets with any lineup of hoopsters in Northern Ontario. Here are three of the squads: No. 1, OPEN PIT: seated, Tommy Zaitz, Johan Saganiewicz, Joe Zaitz; standing, Abe Miles, Don Steepe, Leo Roininen, Walter Shelby. No. 2, FROOD: seated, Ken Mulligan, Walter Dydik, S. Kuzmiski; standing, E. Dunn, A. Zaitsoff, J. Suttie and Ned Leore. No. 3, REFINERY: seated, Crang, Hart, Choretzki, Keegan; standing, McConnell, Matryko, Holgate, Bignuccalo. Other teams in the league are Creighton and Copper Cliff.

Got His Start At Bayonne Plant



HARRY ROE

It was as a clerk in the office of the Bayonne, New Jersey, Refinery that Harry Roe got his start with INCO. Now he's superintendent of the anode department at Port Colborne Refinery, which is a lot of rungs up the ladder of success for a young fellow.

Harry Preston Roe was born on December 9, 1890, in Brooklyn, N.Y., where his father was vice-president of the Hanover Fire Insurance Co. When he was nine the family moved to Freeport and he attended school there, majoring in football, tennis, and swimming. He also did a good deal of studying and when he finished high school he picked railroad work for a career, but after a year with the Long Island Railroad he had a change of heart and switched to International Nickel. That was in November of 1910.

After about a year as clerk he went out into the plant, working on the lining stand, punching tuyeres and skimming on the copper converters, and generally getting to know the ropes. Those were the rugged times when a fellow worked 10 hours on the day shift and 14 at night, and collected \$2.25 per shift. Transferring to the calcining department

Harry became foreman there in 1912. Five years later, when he knew he was being posted to Port Colborne, he rounded out his plant experience by studying phases of the operations with which he had not come in contact, and also took an extension course from Columbia University in chemistry.

When Harry reported to Supt. John More at Port Colborne in March of 1918 he was placed in charge of the leaching and calcining department, the plant commencing operations the following July. All went smoothly until 1922 and then the wandering bug bit him. He wishes it hadn't, because the year he spent back in Bayonne, taking a whirl at the real estate business, leaves an unfortunate gap in his service record. However, hindsight is always better than foresight and Harry returned to Port in 1923. Seven years later he moved over to the anode department as superintendent.

He was married on September 18, 1915, and Mrs. Roe admits he has forgotten only one anniversary in all the happy years of their marriage. That was Earl Lambert's fault, the way Harry tells it. Earl arranged a challenge tennis match and Harry forgot all about his tin wedding.

He has three sons and two granddaughters, and is not what you would call reticent about them. Bill is an ensign in the United States Navy, and at present is in the Philippines; John is a sergeant-pilot in the R.C.A.F.; their pictures appear on the mantle behind Harry in our candid camera snap of him. Preston is an INCOite, employed in the lab.

Vice-president of the Lions and keenly interested in that fine organization's extensive welfare work, president of the Port Colborne Country Club, a determined golfer, and a canny bridge player, Harry is popular on and off the job. They don't make them any better.

EXHIBIT "A"

Have you heard about the draftee called up for examination who claimed exemption on the ground of poor eyesight—and brought his wife along as evidence?

WATT WAS HIS NAME?

An electrician charged with assault and battery was standing before the judge.

Judge: "What is your name, occupation, and what are you charged with?"

Prisoner: "My name is I. C. Sparks; I am an electrician and I am charged with battery."

Judge (recovering his equilibrium): "Officer, put this man in a dry cell."

Former Froodians Write to Triangle

Phil Fletcher writes to the Triangle from overseas:

"In one of the canteens here I happened to notice a paper called Triangle. I wondered, can it be from INCO? It was. They sure get around, don't they? So I took it back to the barrack room and read it from front to back. As I did it brought back quite a number of pleasant memories of the times when I was working at Frood.

"Glad to read of the fine safety records set by Frood and Creighton, and I hope they can keep it up for many months to come. Also I enjoyed reading of the doings of the different INCO groups.

"I guess you are having lots of cold weather and snow in that part of the country, eh? We had snow over here, which is quite unusual for the south of England. Generally when it snows here it lasts only one day but this time it lasted about five weeks. We are having a little rain for a change now.

"I was visiting in the town here last Sunday and noticed the flowering bulbs were breaking through the ground and also the red tips of the rhubarb were showing, so I guess it won't be long before Spring arrives. We all hope that this show will be just about finished by then so we lads can get back home."

Another welcome letter has come from Harry Wiens, also a former Froodian, who spotted issues of the Triangle in one of the canteens. He was confined to hospital when he wrote, having been wounded at the front in France just 20 days before O-Day. "I am looking forward to returning to INCO if I recover my health," he says.

Triangle appreciates its overseas mail and is glad the boys enjoy reading its coverage of doings on the INCO home front.

THERE'S A DIFFERENCE

Lady: "Did you notice the pile of wood in the yard?"

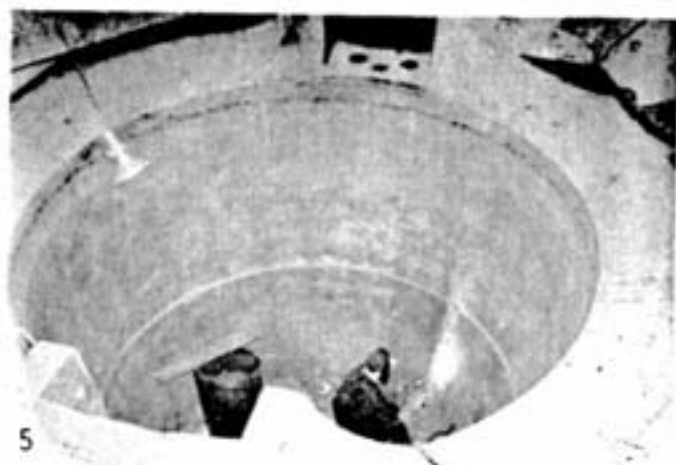
Tramp: "Yes, lady, I seen it."

Lady: "You should mind your grammar, and say you saw it."

Tramp: "Lady, you saw me see it, but you ain't seen me saw it."

• Happiness has many roots, but none more important than security.

— F. B. Steinhilber, Jr.





1-7—Ski Run and Two Stars

The 1945 skiing season brought laurels to two well-known Copper Cliff athletes, one an old hand at the game and the other a rising star in the winter sports movement.

Kel Spruile (left in No. 7) for the second consecutive year won the combined aggregate ski championship in the annual meet sponsored by the Finnish Canadian Athletic Association (Vinnari), retaining possession of the Kaskela Trophy, a fine painting of a skier in a down hill race. Should he cup the prize again next year he can keep it permanently. Kel scored 277.52 points, a margin of 11 points over his nearest rival.

Bruce Kerr (right) hit the limelight when he won the slalom event in the Nickel District championships. Rounding the flags of the tricky course on the Peter St. Hill, Bruce was clocked in 31.2 seconds in his best run, a time untouched by any other contestant. On his second run he crossed the finish line 32.7 seconds to give him a total low which could not be matched. A bright future in skiing looms for this young athlete, who works in the Copper Cliff warehouse. He is a product of the Cliff Ski Club and was a member of the Copper Cliff High School team which for three years held the District high school championship. Others of this team were Des Morrow, Don Ripley, Bobby Coe, and Graham Byers.

Ski titles rest lightly on the shoulders of Kel Spruile. He's used to them. For five years in a row, from 1939 to 1943, he held the Nickel Ski trophy, emblematic of the combined senior slalom, downhill, and cross-country championship of the Nickel District. This trophy, arranged by that ardent ski enthusiast, the late Bruce Allen, is a highly coveted prize and competition for it is keen. Also, in 1942, Kel won the combined championship of Northern Ontario against such tough competition as Louis Georges of Owen Sound, 1941 Dominion downhill and slalom titleholder, and a team of Norwegian skiers from Little Norway.

Greatly interested in the development of skiing, Kel is one who, along with Mac Furwhe and other workers of that ilk, spends a lot of time coaching youngsters in the sport. He came to the Research Lab at the Cliff from Montreal eight years ago. He thinks Sudbury District skiing reaches a very good standard considering the shortness of the season and the comparative scarcity of good hills. He expects to see a decided impetus when the lifting of wartime travel restrictions will permit more use of the many fine runs in the Levack area. He appreciates the spirit of co-operation which exists between the five clubs of the Nickel District Ski Committee, Sudbury, Copper Cliff, Veoma (Strongth), Vexa (Youshi), and Alena, and he hopes both Levack and Coniston will experience a skiing boom during the next few years to add further pep and interest to district competitions.

In No. 1 is a view of the difficult Peter St. Hill in Sudbury during the 1945 championship events. Part of the big crowd is spread out in the foreground and along the sides of the slalom course.

2-3-4—Garson Ladies Team

Although it was organized only in November of 1944, Garson Nursing Division of the

St. John Ambulance Association had progressed so swiftly in the fine art of First Aid by the following spring that it won the Mrs. Stanley Gardner Shield for general proficiency, in competition with the four other divisions of the Sudbury district, Sudbury 82, Elizabeth Aylward, Marie Curie, and Coniston.

Keeping up the good work, the Garson Division rolled up an impressive record of service during 1944. There was an average attendance of 15 of its 16 members at the regular weekly meetings in the Division's own club-room supplied and equipped by INCO in the Garson Clubhouse. The members put in a total of 627 hours of volunteer work in the Blood Clinic at Sudbury to which they made 150 trips, as well as 80 hours of service in St. Joseph's Hospital. They took charge of a Red Cross tag day which realized \$34.09, and they gave First Aid instruction to the Girl Guides. All this was in addition to their regular St. John Ambulance studies.

At the Sudbury Blood Clinic the ladies turn in along with other volunteers to clean up equipment after each Mobile Clinic returns from a trip in the District. At the Garson Clinic they take charge of temperatures, fluids, and scrub-ups, and watch rest cots, usher patients to and from donor tables, care for patients who feel faint, and fill in at donor tables if there is a shortage of nurses.

In Picture No. 4 a group of the Garson members gather around the bed of a "patient". Mrs. Mary Morrison. From left to right they are Mesdames Mary Myers, Therese Malin, Doris Brodie, Verna Morin, Christina Jack (Ambulance Officer), Alice Ennis, Awerd Morrison, Margaret Foden, Anna Sage, and Edrie Gregg.

In Picture No. 1 the "patient" is again Mrs. Morrison and the nurses are Mesdames Mary Brankley, Mary Richardson, Mary McCauley, Thelma Jodoun, Evelyn McNeice, Ena Smerdon, Agnes Armstrong, Grace Brankley, Bea Gullis.

And in Picture No. 2 is Mrs. Laura MacIver, who organized the Garson Division in late 1943 and is its Superintendent. She had been engaged in St. John Ambulance work with the Sudbury 82 Division for five years previously, found it so interesting and worthwhile that she thought her friends in Garson would like it too. She was certainly right in her guess.

5—Fast Repair Job at Pit

Of the three crushers which chew up the ore from Frood Open Pit and reduce it to convenient size for the Copper Cliff Concentrator's delicate digestive system, biggest is the 54-inch gyratory crusher, which can handle 2,000 tons of ore an hour. Not often does this giant suffer a breakdown, but when it does the repair job gets a green light during day and night until it's completed.

Last month, in the course of a routine inspection, the Pit mechanical department discovered a crack in the middle casting of the permanent frame of the crusher, which is made up of three main castings, two in the bowl section and one underneath. Out came the 78-ton head which gyrates in the centre of the crusher and smashes the chunks of ore against the sides of the bowl. Off came the manganese steel concaves which line the inside of the bowl against the terrific abrasion of the crushing

operation. To work on a 24-hour basis went a crew of welders and six welding machines. From Friday to Wednesday without a stop the repair chore went on, 1000 lbs. of welding rod and five tons of reinforcing steel going into a slick sealing of the break. In what is considered very fast time on a job of this sort, the 54-inch gyratory crusher was back in business, to all intents and purposes good as new. The picture shows one of the expert welders, Leo Lucombe, busy with his torch on the crack in the 45,000-lb. middle casting, which is more than five inches thick. The top casting weighs 147,000 lbs.

6—Has Splendid Safety Record

March 15 was a proud day for Cliff Dever, blasting shift boss at Frood Open Pit, for that day saw the completion of 100,000 consecutive shifts without a lost-time accident by the men of his crew. The first 88,000 safe shifts of his fine record were piled up by his men on 1,400 level at No. 3 Shaft Frood, and the remainder by his blasting crew since he transferred to the Pit.

Cliff is seen in this picture at the left, receiving the hearty congratulations of Open Pit Superintendent C. H. Stewart. The "100,000 man" has been with the Company since 1928, was married in 1929, has a family of three. His hobbies are wood-working and car-tinkering.

8—Will Stage Smart Comedy Hit

Rehearsals are reaching production pinch for "Petticoat Fever", the three-act comedy farce which the INCO Club Players will stage at the Employees Club in Sudbury on April 20 and 21.

Richly larded with laughs, "Petticoat Fever" has been a prime favorite of the more advanced amateur dramatic groups ever since Myrna Loy and Robert Montgomery made such a successful film of it. Scene of the farce is a remote wireless station in Labrador, and source of a lot of good fun are the antics of the wireless operator, slightly "bushed" after two years in the wilds, when a couple of delectable damsels make their appearance.

Don McGill, drama-wise manager of Radio Station CKSO, is director of the production, and the cast is composed of members of the Employees Club. The picture shows a few of them during rehearsal: left to right, Director McGill, "Mickey" Moroney, Charlie Ness and Joy Gibson, of the Copper Refinery, and Bert Meredith of Frood. Others who will take part in the play are Andy Winn, Carl Heidman, and Ted Dash, of Frood; Sheila Grannary of Copper Cliff, and Ruth Gibson of Refinery. Stage manager is Larry O'Brien, electrician is Borden Caswell, properties manager is Kitty Britton, and prompter is Helen Lang.

9—Creighton Suggestion Winner

Another of those successful Suggestion Plan teams bobbed up last month at Creighton Mine. Larry Tuddenham (left) and Leslie Leck, electricians, collected \$55.00 each for their idea on trip-free circuit breakers for battery locomotives. Their brain-wave will eventually be installed on all the Company's battery locomotives. It will cut down a good deal on locomotive repairs because formerly when a fuse burned out and a motorman had no replacement for it, it was not uncommon for him to use a nail in place of the fuse. This practice sometimes resulted in electrically overloading the motor. Larry Tuddenham has 17 years' service with INCO and Les Leck has 11. Congratulations, boys!

Jack Doucet and Tony Mahon, the Frood Suggestion Plan team we featured last month, have clicked again. This time they gather in 35½ shekels apiece for suggesting a new type of rollers and roller frames at the feed end of No. 17 conveyor in the rock house.

Current and Choice IN SUDBURY CINEMA

"HERE COME THE CO-EDS"

You know little Lou Costello, the Pagliacci in oversize pants. Well, in his next show with big Bud Abbott he masquerades as a girl and plays in a basketball game opposite a team of Amazons, all over six feet tall. They say it's a riot.

Another slay 'em sequence is the one in which Bud tosses Lou into the ring against the Masked Marvel, with everything depending on the outcome of their wrestling match. In a flash finish Lou outruns him and wins the bout.

These and 30 like them are belt-straining laughs in "Here Come the Co-Eds", latest Abbott and Costello picture. Scene is Bixby College, exclusive, hallowed school for young gentlemen until the two comedians arrive to become assistant caretakers. Then tradition goes out the back door and love flies in the window. Slaty McCarthy (Abbott) and Oliver Quackenbush (Costello) go through some wild antics to save the old school from going under the auctioneer's hammer when cold-blooded Chairman Kirkland decides to foreclose on his mortgage.

Martha O'Driscoll, June Vincent, and Peggy Ryan are the winsome threesomes who furnish a pulchritudinous background for the capers of Slaty and Oliver. Phil Spitalny's All-girl



Abbott and Costello, whose latest pantie is "Here Come the Co-Eds".

Orchestra of 15 musicians and Lon Chaney Jr. as the villain are other attractions.

It's well worth your while if you've something you'd like to forget for a couple of hours—and who hasn't?

"FRENCHMAN'S CREEK"

Brilliant Technicolor photography features Paramount's production of the Daphne du Maurier novel "Frenchman's Creek", wash-buckling pirate tale laid against a background of the Cornish coast in 1668.

Love story of a pirate, played by Arturo de Cordova, and a fascinating Englishwoman, Lady St. Columb, played by Joan Fontaine, this film bristles with colorful action and abounds in beautiful seascapes.

Bored by court life and her toppish, bearded hubby, Lady St. Columb retreats to her estate in a desolate area of Northern England. She discovers that Naven House is being used as a hideout by de Cordova and his band of pirates. Their sailing vessel, La Mouette, lies at anchor in Frenchman's Creek. When the imperious Dona St. Columb and the dashing buccaner meet, it's the beginning of

a 1,400-kilowatt romance. A lady of fire and ice, she defies convention by joining the pirate on his breathtaking raids.

It isn't long until the neglected husband gets wind of these goings-on and plans a trap into



Arturo de Cordova, new Latin-American Star, who appears in "Frenchman's Creek".

which the pirate tumbles. Jailed and awaiting a sure hanging, he is rescued by Joan in a thrilling escape venture.

Sea battles and sword play, and the romance of a handsome pirate and a beautiful woman, make "Frenchman's Creek" a first-class screen diversion.

La Mouette, the pirate ship, was built on the Paramount lot on corsair lines over the hull of the fishing schooner Cecil B. DeMille used in "Reap the Wild Wind". Then it was towed by a tug 600 miles up the coast to location at Albion on the shore of the Mendocino country. Recently dismantled, the ship will be used as a target by the Coast Guard.

Also in the book for April are:

"Can't Help Singing" with Deanna Durbin and David Bruce; "The Princess and the Pirate" with Bob Hope and Virginia Mayo; "Dark Waters" with Merle Oberon and Franchot Tone; "10 Seconds Over Tokyo" with Van Johnson, Robert Walker, Spencer Tracy; "The Suspect" with Charles Laughton and Ella Raines; "Something for the Boys" with Carmen Miranda, Michael O'Shea, Vivian Blaine; "House of Frankenstein" with Boris Karloff, Lon Chaney, John Carradine, J. Carroll Nash; "Doughgirls" with Ann Sheridan; "Sing me a Song of Texas" with Rosemary Lane, Tom Tyler, Nudie Beery, Slim Summerhill; "Mister Rite", the warning about Germany; "Much Too Shy" with George Formby; Miss Hart's "Winged Victory" produced by Darrel F. Zanuck.

128 POUNDS IN POCKETS OF A BLOUSE

New arrivals — find the equivalent. A mail order buying Washington by sea for one of Pearl Harbor, packed a full of mail into each blouse pocket and was off. These days later the two girls, each containing such a prodigious amount of engineering drawings, were in the distance from. Mechanics considered the film, then made recently needed repairs to a ship which had been captured, and then, in return to return. I had then been on paper instead of film, those plans would have weighed 128 pounds, instead of too heavy to fit into officers' pockets, and who better to get by plane without displacing a passenger or high priority cargo.

Steel and high nickel alloys are used in parts of the engine, with which the main-point is made. Precision equipment for the film as well as the Airplane and printing, also require INCO products.

Communications On Board Ship A Complete System

Interior communications aboard ship, often equalling in quantity of equipment that of a small city's communications system, contribute heavily to the operational success of the Fleet.

On a large vessel there may be a telephone exchange of 300 lines with 400 instruments. In addition to telephones, there are a multitude of emergency and battle systems all geared to handle any contingency which a warship is likely to experience.

If you turned on your 10-watt radio at full blast, the neighbors probably would object; but the Navy turns on its 500 to 1,000-watt bull horns and the neighbors love it. The neighbors, in the Navy's case, are other ships.

Fifty feet away from it, the bull horn's voice is ten times louder than thunder. Aboard the latest type carriers there are hundreds of loud speakers. These, however, are for relatively normal tones within the ship's interior. On the flight deck the human voice needs amplification beyond anything heretofore known, and it is the job of the bull horn to bellow orders against the roar of wind, plane motors and the miscellaneous clamor of battle.

The battle announcing system permits passing words from key stations aboard ship such as the bridge, the quarter deck or the main engine room to all compartments or desired groups of compartments below deck or areas above deck, and in addition transmits the vital general alarm and chemical attack signals throughout the ship to summon the ship's crew to general quarters.

Nickel and nickel alloys are vital materials in the construction of all wartime electrical communication systems. In the form of wire and strip for tubes or other electronic devices, they will be equally invaluable in the construction of our television and other receiving sets of the future.

BOMBS AWAY!

Hitler and Hirohito are troubled with absenteeism too. Every day a few more factories fail to show up for work.

