

Inco Mines Capture Four of Five Top Spots In Dominion-Wide John T. Ryan Competition

Canadian Safety Championship Trophy



The John T. Ryan Safety Trophy, emblematic of Dominion-wide safety honors, won for 1945 by Inco's Garson Mine with a frequency of only 6.69 accidents for every thousand men employed. Administered by the Canadian Institute of Mining and Metallurgy, the award was donated and named in memory of the late president of Mine Safety Appliances Company, Ltd. With a spectacular effort which earned them four of the five top places in Dominion-wide competition, Inco mines stole the spotlight in the 1945 race for the Ryan Award, emblematic of the Canadian safety championship for metal mining.

Garson Mine led the parade with the impressive frequency of only 6.69 accidents for each 1,000 men employed, but was closely chased by Creighton with 7.41. In third place was Frood With 11.26; last year Frood won the Ontario regional Ryan Award and was second for all Canada; fifth for 1945 was Levack with the creditable frequency of 18.05, which was just edged out by Omega Gold Mines.

Announcement of the sweeping triumph for the Inco plants was made during the Parker Shield contest the evening of March 28, and was greeted with ringing applause. Word had got around that the Ryan results might be ready for release that night, and representatives of the four mining camps were all on the qui vive. For almost three months the mines had waited while the Ryan committee assembled and checked returns from across Canada, and it was anxious waiting. Superintendent Foster Todd says that at Garson the Ryan Award theme song became "Is You Is or Is You Ain't Our Baby."

The results were announced by General Superintendent R. D. Parker upon receipt of a telegram from E. J. Carlyle, general secretary of the Canadian Institute of Mines and Metallurgy, which sponsors the competition.

lurgy, which sponsors the competition. Vice President R. L. Beattie read a telegram of congratulations from R. C. Stanley, president of the Company, as follows:

"Tremendously pleased to hear that our mining organization has received the 1945 Ryan safety award. Our splendid record shows that our Garson mine stood first, our Creighton mine second, our Frood mine third, our Levack mine fifth in the annual contest. It is gratifying to know that our Garson mine won both the Dominion and Ontario metal mining Rvan safety award. This high honor for the International Nickel Company reflects great credit on our workmen and supervisors, who were responsible for this excellent achievement. My heartiest congratulations to all."

Mr. Beattie expressed his pleasure at the great honors captured by the Inco mines. It is particularly gratifying to Inco, he said, to be the first company conducting operations of major size to win the Ryan award. "I want to assure you," he said, "that your Company is both proud and appreciative of the mining record set over the past five years in which the Ryan contest has been conducted, and of the honors thereby brought to the employees and to the Company."

Garson had entered the charmed circle of winners Creighton, having served notice in 1944 that it really meant business for 1945.

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Compliment

Much better than blowing your own horn is to have some thoughtful person step up voluntarily and do it for you.

In the issue of April 4 the editor of The Northern Miner had this to say:

"International Nickel Company of Canada, Ltd. won the Ryan Safety Award for 1945, by an impressive performance, which placed the company's Garson mine in first place, Creighton in second, Frood in third and Levack in fifth positions. Officials are particularly gratified that it is the first company conducting operations of major size to win the award.

"The competition for the Ryan Safety Award is nation-wide and to win it is a distinct honor. It is evidence of safety consciousness on the part of management and men."

WELL BABY CLINIC

AT SUDBURY CENTRE

A Well Baby Clinic has been inaugurated at the Inco Medical Centre in Sudbury. More than 50 pre-school youngsters of Inco employees received a complete physical check-up at the first session of the Clinic on March 19, and it is expected that upwards of 100 will be registered at each of the Tuerday afternoon sessions in future. Inco doctors, headed by Dr. Jack Stanion, are in charge of the Clinic. Inoculations, vaccination, and advice on diets and formulae are among the items on the program which the sponsors are confident will raise the health standards of Inco families.

Water Wings Would Be Good Too



Harold Beck, left, and Glen Winger, centre, offer each other congratulations on escaping from the clutches of Lake Erie. Both were out fishing, fell through the ice, and were thoroughly dunked. On the right is Len Hobbs, Port Colborne safety engineer, presenting the boys with something useful in the way of safety equipment for future fishing trips.

TOE BLAKE HONORED

Hector (Toe) Blake of Coniston, veteran left wing and captain of Montreal Canadiens, has been awarded the Lady Byng trophy for good sportsmanship and high standard of play during the past season in the National Hockey League.

McINTYRE TAKES TITLE

After taking two straight wins on Sudbury Wolves' home ice, McIntyre cinched the Northern Ontario senior hockey championship at Timmins on March 6, defeating Wolves 5-4 in 10 minutes of overtime. The Macmen later were eliminated from the Allan Cup race by Hamilton Tigers.

CHIP OFF THE OLD BLOCK

An editor had cause to admonish his son because of the lad's reluctance to attend school. "You must go everyday and learn to be a

"You must go everyday and learn to be a great scholar," said the fond father, "otherwise you can never be an editor, you know. basemer What would you do, for instance, if your George.

magazine came out full of mistakes?" "Father," was the reply, "I'd blame the printer."

And the father wept with joy, because he knew he had a successor for the editorial chair.

FIVE CLUBS IN N.B.B.A.

There will be five teams entered in the Nickel Belt Baseball Association league again this year. At the first executive meeting of the year on March 28 President Barney Barnett received entry assurances from representatives of Creighton, Coniston, Copper Cliff, Frood, and Shamrocks.

CIRCUMSTANTIAL EVIDENCE

Sonny: Mama, Papa wouldn't murder anybody, would he?

Mother: Gracious no! What makes you ask that?

Sonny: Well, I heard him down in the basement saying, "Let's kill the other two, George."

Garson Mine, Where 1945 Safety Championship Was Won



ELECTRICAL DEPARTMENT BEATS the second Cliff counter in the first match. AN OLD MAINTENANCE HAZARD



An ingenious safety device which won enthusiastic praise from Electrical Inspector Don Douglas of the Department of Mines has been developed by the Electrical Department at Copper Cliff.

One of an electrician's many jobs is opening and closing disconnecting switches, demonstrated in the picture by Gordon Clark at the Crushing Plant. In the lower part of the photo is a row of electrically operated oil circuit breakers used to open electrical power circuits and shut down connected motors.

A great hazard to maintenance electricians is making the mistake of opening or closing a disconnecting switch while the circuit breaker is in the "closed" position. Invariably the result of this error is a "flash" resulting in burns to the electrician and damage to equipment.

The Electrical Department devised a way to overcome this hazard. A door made from insulated material is hinged in front of the disconnects, and electrical contacts (marked by arrows) are installed to open and close the electrical control circuit of the oil circuit breaker. The contacts are operated by the opening and closing action of the door in such a way that the instant the door is opened the oil circuit breaker must automatically open and cannot be closed again until the door has been closed.

At least that's what Ernie Cox says, and he ought to know.

Redmen Outclassed But Not Disgraced

Although they won the Northern Ontario Junior A hockey crown in convincing style in a series with Porcupine Combines, the Copper Cliff Redmen came a cropper when they bumped into the powerful St. Michael'a team at Toronto on the Memorial Cup trail.

In two straight games, 13-2 and 8-1, St. Mike's polished off the Northern titleholders at Maple Leaf Gardens, leaving nary a doubt in the world of their bone-crushing superiority in every department of the game.

collections of hockey talent in Memorial Cup history, the Redmen nevertheless were by no means disgraced. Their spunky performance and the flashes of smart combination play which Coach Jim Dewey had drilled into them, won great favor with the fans.

Tatter McClellan, bagging a goal in each are made because he does n of the games, and Gord Heale, who scored things he thinks he knows.

were the only Redmen to solve the St. Mike defence

Mines Take Four of Five (Continued from Page 1)

had almost turned the trick; Frood had retained its place among the leaders; Levack. overall figures for the five years of the contest show, averaged no less than second on that basis.

History of the Ryan Award reveals that Inco plants, although never before reaching the inner sanctum, have been knocking at the door since the competition was inaugurated. Illuminating is the comparison between today's safety frequencies and those of previous years, indicating the interest which employees are showing in their safety performance.

In 1941, when Chesterville Larder took the award with a frequency of 8.5, Creighton was second with 12.12, Levack was third with 14.13, Garson was fourth with 14.18, and Frood was sixth with 14.43.

In 1942, the year Omega hit the headlines with 4.77, Frood was third with 13.12, Levack was fourth with 14.09, Garson was seventh with 23.79, and Creighton was tenth with 25.74. The 1943 competition found Omega bobbing up again as winner with 6.25, Levack third with 16.99, Frood fourth with 17.61, Creighton fifth with 26.40, and Garson ninth with 31.87. In 1944, when Stadacona took Dominion honors with 10.70, Frood was second with 12.64, Creighton was third with 13.56, Levack was fourth with 19.34, and Garson was sixth with 24.50.

Three-fourths of the mistakes a man makes are made because he does not really know the

Winner of \$250 Inco Scholarship



One of the most coveted awards at the recent Mutical Festival in Sudbury was the \$250.00 scholarship donated by International Nickel Company to encourage young musicians and further their training. Winner was Miss Mary Foys, seen in the above picture tuning up with her teacher, Archie Canapini, former Copper Refinery worker. A highly gifted young performer, Mary was a popular winner of the award. The Festival, conducted jointly by the Kiwanis Club and the Ontario Music Teachers' Federation, Sudbury Branch, was an outstanding success and is established as an annual event. Hundreds of Inco people took part in the contests. A tireless and very effective worker on the organization end was Mrs. E. C. Outclassed by one of the most powerful Lambert of Copper Cliff, herself an accomplished musician.

rage 4





Miscellaneous Glimpses of Life in Garson

Not only on the job where the actual hazards exist, but also in the homes where contented living produces the frame of mind that wins a Dominion safety championship, is the story of Garson's Ryan Award victory to be found.

On this and the next page the Triangle takes its readers on a quick trip through the mine and also into some of the happy homes of the community, to meet a few of the people responsible for Garson's great triumph.

1. Leading off the picture parade is John Zachai, seen drilling the breast in 23 stope on 1200 Level. The steady attention to business of men like John resulted in Dominionwide recognition for Garson Mine.

2. Here's a glimpse of one of the conferences which have helped to build Garson's splendid safety record. Seated is Superintendent Foster Todd, who started with Inco at Frood in 1927 and became safety engineer, was transferred to Levack where at the end of three years he had become general foreman, went to Murray as superintendent in 1942, and was named superintendent at Garson in 1945. Hunting and fishing are his favorite diversions. Standing in the centre is Archie Massey, general mine foreman, who had more than three years' experience at Frood before coming to Garson. At the right is Safety Engineer Harold Fullerton, who has been at Garson since 1937, came originally from Thessalon, spent two years at Falconbridge before joining Inco, is an ambitious gardener and an active





3. Neilo Jussila, an Inco man since December, 1926, is pictured here scaling down loose in 23 stope on 1200 Level. Neilo is the father of attractive Miss Violet Jussila, Garson's entry in the Ice Queen Contest conducted in conjunction with the Dominion speed skating championships in Sudbury this year.

4. A cageload of miners descending for the day's shift. At front left is Harold McBride, cage tender, who has been with the Company since May, 1937, and is a son of the late Harry McBride, long time prospector in Sudbury District. At right front is Laurie Hellman, shift boss on 1,400 Level.

5. Tony Strumbelj, at the controls of his motor on 1400 Level. Tony is by no means as quiet and pensive a character as he appears in this photograph. His service record dates back to May, 1929.

6. Seen timbering the top of a raise in 32 stope on 800 Level are Pete Norris and Andy Milly, whose service extends from 1934 and 1933, respectively. Pete is known as a lad who dearly loves an argument, and Andy is a former. Western Canada farmer.

7. A review of Garson's safety setup would be far from complete without reference to the faithful medico whose responsibility is the health of the community. Here he is, Dr. Larry Kirk, familiar stogie in hand, as he checks up on a patient from his office.

8. Albert Farenzina, a senior stope boss, is photographed here with his large and happy family. Left to right are Delma, Shirley. Albert, Rena, Haroldine, Sharon, Mrs. Farenzina, and the unofficial head of the house, Clement. Another son, Frankie, attends Scollard Hall at North Bay. Albert, an ex-goalie on the Garson football team, nipped steel with Sid Gemmell at Worthington away back in 1923.

9 Getting away a letter to Dick, who is still

(Continued on Page 6)

Garson Public School Girls' Choir



One of three choirs from Garson which entered the Musical Festival at Sudbury, the Public School Girls' Choir, pictured here, was an outstanding winner in its class. Left to right: back row, Terrie Lou Gomoll, Doris Black, Eleanor Thompson, Evelyn Gasnick, Lorraine Manning, Josephine Lee, Ola Kowch, Doreen Crisante, Isobel Zinger, Joan Smerdon, Ellen Koskela; second row, Helen Norris, Betty Burton, Virginia Oldroyd, Betty Holmes, Mary Pasishnyk, Raili Nyfors, Patricia Williams, Edith Lashuk, Virginia Todd, Jessie Morawski, Bernice Arm-strong, Miss M. Anderson, accompanist; third row, Mrs. R. C. Gomoll, conductress; Doreen Williams, Wanda Morawski, Catherine MacIver, Joan Morrow, Sally Lewis, Olga Kyrylak, Dolores Davidson, Lorraine Zinger, Anna Dudovitch; front row, Margaret Creig, Doreen Mann, Therese Van Huekelom, Thelma Sippola, Irene Manning, Helen Kaattari, Shirley Armstrong, Barbara Oldroyd, Lily Lashuk, Ruby Joyce.

Glimpses of Life in Garson

(Continued from Page 5)

with the Air Force at Vancouver, is a family affair in the McCauley home. On the left is Mary, aged 9; the official chronicler in the centre is Mrs. McCauley, and next to her is Ellen, aged 15. A senior stope boss, Bob, on the right, has been with the Company since 1939. He is an enthusiastic football supporter.

10. In 1800 main west drift heading Larry Saari, left, and George Wilson are seen as popular workers. they drill off a round. Larry is an Incoite of 1929 vintage and George was recently reinstated with the Company after Army service.

11. Photographed in the loading pocket at the bottom of the mine on 2100 Level are two skip tenders, John Peerla, left, and Archie Bowen. John's service dates from February, 1937, and Archie's from May, 1929. Archie's activities include Athletic Association and First Aid, and the giving out of sweet music now and then with a fine baritone voice.

12. Doug Thompon, veteran powderman on 1400 Level, is seen issuing fuse to Mike Hofbauer, driller. Acknowledged fly fishing champion of the District, Doug has been with Inco since September, 1926, and is soon to retire on pension. Mike had unusual training as a Triangle arrived at Arvo Bontinen's house. driller—he spent two years studying dentistry The four kiddies photoed with their parents before going into the mining game.

13. The importance of a good First Aid aged 4, and Nancy, aged 6. department cannot be overestimated when pany since January, 1923, Arvo is a driller safety records are being sought. Prompt and and an inveterate sports supporter. expert treatment of injuries holds lost time to 18. Careful scaling down of lo a minimum. Here are Garson's three cracker- important safety measure. Seen performing jack First Aiders: Walter Benn, with Inco since this operation here is Art Treitz, a Westerner 1934, is treating a patient for an eye injury: who has been on the Inco rolls since May, in the centre is Ollie Matson, a 1937 man, 1937.

justly famous as centre half on many a good Garson football eleven; on the right is Fleming LaPierre, 1937, the Garson canary king.

14. About to dump a car of fill in 16 stope on 1400 Level is Ken MacDonald, who was recently transferred to Garson from Frood-Stobie Open Pit.

15. Supper time at the home of Arvi Koskela, and around the table are Gloria, aged 5; Arlene, aged 9; Mrs. Koskela; Sandra Ann, aged 6 months; the old man himself, and Ellen, aged 13. Arvi, who has been with the Company since April, 1924, is Garson rockhouse foreman, and as chairman of the entertaining committee of the Athletic Association is one of the community's most active and

16. Representatives of four of the surface departments, which get credit for an important share of the Garson Ryan win. Left to right, Bill Luhta, surface motorman, with Inco since January, 1937, is a member of Neelon-Garson Township Council; John Brodie, machinist leader, has been with the Company since March, 1912, and is well known as one of Sudbury District's most talented artists; Ross Moir, maintenance electrician, with Inco since December, 1935, has a considerable reputation as a trout fisherman; John Dixon, storeman helper, dates his service back to September, 1923, and is an unfailing helper in organizing community affairs.

17. It was just about bedtime when the are Carol, aged 3; Linda, aged 8; Richard, With the Com-

18. Careful scaling down of loose is very

HOW IS YOUR BRAIN-POWER?

First, let's clean up last month's business. Smith was the engineer. E. A. Collins was the first to phone in the right answer, although a lot of our readers turned out to be on the beam. Bob Morrison of Port Colborne was another early bird. We couldn't make head or tail of it so it was a good thing we knew the right answer.

This month we present a really tough one but good clear precise thinking should give you the answer before long. Don't monkey around too long.

"A rope, passed over a pulley, had a monkey on one end and a weight on the other, and the whole remained in equilibrium with the same amount of rope on each side of the pulley. The rope weighed four ounces for every foot and the age of the monkey and the monkey's mother together was four years and the weight of the monkey was as many pounds as the monkey's mother was years old and the monkey's mother was twice as old as the monkey was when the monkey's mother was half as old as the monkey will be when the monkey is three times as old as the monkey's mother was when the monkey's mother was three times as old as the monkey, and the weight of the weight and the weight of the rope was half as much again as the difference between the weight of the weight and the weight of the weight plus the weight of the monkey.

WHAT IS THE LENGTH OF THE ROPE?

CREIGHTON GALS PUT KIBOSH ON Walking machine; Edith Slater is the cyclist. CALORIES AT GYM. CLASSES







Calories lurking in maple fudge and butter- in the centre picture as a quartet of girls perscotch sundaes hold no terrors for the 20 form on the ladder. Left to right they are young ladies of Creighton Mine who keep the F. Desjardins, Rita Loupelle, Anne Kozak, and old avoirdupois in check by putting in an hour or so twice a week at the Gym Class in the Employees' Club.

In the top picture, front row, are Lena Flora, Doris Zanier, and P. Staples, and in the ployees' Club gym is getting a workout in the second row are Lena Franceschini, Stella Kora-third picture: Elva Grier is doing some rowing; luk, and Betty Narasnek.

Some of the special equipment in the Em-Velma Franceschini. Cecelia Noonan, and

The class is conducted by Barney Barnicott, who deserves a medal for the time and effort he volunteers to keep Creighton healthy. He also has large classes of boys and girls which meet twice weekly for gymasium training.

New York Office Helped Entertain Sudbury Girls

Winner of the Ice Queen contest held in connection with the Dominion speed-skating championships in Sudbury, Miss Theresa Barbeau was presented with an all-expense trip to New York by W. E. Mason, publisher of the Sudbury Daily Star. Members of Inco's New York office helped

entertain Miss Barbeau and her friend, Miss Yverte Proulx, who accompanied her. The girls were met at LaGuardia Airport on Feb. 28 by Bob Broderick and escorted to the Hotel Piccadilly. They were welcomed there by F. C. Allgeier, assistant chief comptroller, who took them to the office of Lester Patrick at Madison Square Garden.

On Monday, March 4, Jack Cody and Bill Finnerty, members of the Accounting Division of Inco in New York, escorted the girls to an afternoon performance at Radio Čity Music Hall, followed by a visit to the Rainbow Room atop the R.C.A. Building in Rockefeller Centre. That evening the party went to the Hotel Taft for dinner and the girls obtained Vincent Lopez's autograph. Then they spent a few hours at the "Village Barn," a showplace in Greenwich Village.

The following day the young ladies had lunch with Mr. Allgeier and were then shown around the downtown financial district by Jack Cody. On Wednesday Bill Finnerty met the girls at their hotel and escorted them to the Trans-Canada office from which point they were taken to their plane at LaGuardia Field for their return trip.

Broderick, Cody and Finnerty are all ex-That they "rang the bell" as escorts was indi-cated by the "thank you" letter Miss Proulx wrote to F. C. Allgeier. She said, in part. I would like to thank you most sincerely for having been such a thoughtful and gracious host and providing us with very charming escorts.'



EILEEN & CAROL MAHON

Jerry Mahon, of the Copper Refinery, sends along this snap of his two cute young ones, Eileen, $1\frac{1}{2}$, and Carol, $4\frac{1}{2}$. Jerry works in A difficult gymnastic stunt is demonstrated Orma McGillvary are away for a hike on the the Stores department at the Refinery.



Fashion shows not only offer commercial opportunities for over-the-air broadcast, but they can be sent over wired television-from the woman's shop of a department store to the show windows or other sections of the store, for example. This picture, incidentally, shows the television pick-up equipment-camera, for sight, and the microphone, long gun-like apparatus at the right, for sound.

You can see and hear a bull fight in Spain, a tribal dance in Zanzibar, a football match in Great Britain, or just a fashion show at your neighborhood department store one of these days without stirring from your air-conditioned living room. All by television.

These events, of course, are not all going to come over the air immediately. There are still many problems to be overcome and production of new receivers can't be accomplished overnight. But engineers predict that with the release of materials and technically trained personnel for the construction of new television sets, you'll be able to see and hear plays and current news or sport activities with the same clarity that you can see and hear them in the movies. But you'll see them as they happen and not as history. The world literally will come into your living room as, and to the degree that, you invite it, with the flick of a switch.

These predictions are based partially on the progress in electronics that came with the war, and partially on the history of other developments, such as radio, which followed the last war. Engineers point out that television is far beyond the comparative "crystal set" stage of radio in its early days.

While television research, as such, was hampered by laboratory pre-occupation with the war, developments in the basic field of electronics were pushed ahead the equivalent of several peacetime decades in five years of war. This accumulated knowledge has been applied to commercial television, into which direct research was carried on a scale which began to broaden with increasing signs of victory.

One of the major problems facing the general use of television when the first commercial receivers were introduced, at the time of the World's Fair in 1939, was the assignment of "channels" to the transmitting stations. These were so much broader than those required for radio broadcasting that only a few stations could operate without crowding the dial on the receiving set into chaos. Under the influence of wartime necessity, however, electronic engineers developed the "microwave," bv means of which television and other signals can be confined to infinitely small channels,

transmission through the control root with the same facility as program

NICKE THE WORL

and limits on the number of stations have

which follow the curve of the earth, the frequency waves of television tend to trav a straight line and off into space. Thus practical limit of reception, from the poir transmission, essentially is that of the hor and ranges roughly from 20 to 60 miles pending upon the elevations of receiving and transmitter.

The relay has become the answer to vision's problems of distance. Relay sta will be located, where high points are avail between 60 and 100 miles apart, and bet 20 and 30 miles apart where terrain is fla-

Master stations will serve the large (directly, and relay stations will carry the grams to distant points. The relays will be used to serve local stations with netv programs. These can be interrupted as de for local programs.

Television will make use of wires as as of ether. Engineers foresee the day v management may see and hear operation various points in the plant without leaving office. Also, by means of wired televi fashion shows, displays, or other features department store may be relayed to show dows or to other parts of the store. N stores will relay programs and displays to stations for broadcast. In some cases, der ment stores, either singly or in co-opera with others, will operate their own broad units.

According to most engineers, this indu-field, called "intratel," has very many sibilities.

Present plans for new television sets cal direct view as well as projection models. direct view receiver will resemble those m factured just prior to the war. In these, images are imposed directly on the cathode



Hearts of television transmitting and receiving sets are two tubes—the iconoscope, or pick-up tube, at the left, and the receiving tube, at the right. Both depend for necessary electrical properties on nickel and nickel alloys.

VILL HELP BRING O YOUR LIVING ROOM

ving tube. The projection models make of special lenses by which the images can brown on a screen which folds into the ver when not in use, or can be projected a screen hung on the wall—much like creen used for a motion picture projector. ans for these new sets already have been bleted and only awaited the end of the fic War to release materials and facilities heir construction. As war production perd, research provided broadcasting studios new equipment, new means of control, other facilities that kept them up to date, providing blueprints for the expansion to when production of equipment has time t its stride.

ke all other electronic devices, television on the versatile characteristics of nickel nickel alloys. These are found both in ubes and in the complicated and intricate ical circuits which send the visual images synchronized sound over the air.

eart of television—both in receiving sets transmitters—are two cathode ray tubes. tube in the transmitter is usually the hoscope," or camera pick-up tube. The hicon" or "dissectitube" tubes may also be Roughly, these are to television what microphone is to radio.

the "iconoscope," light passes through era lenses and the scene is imagined on a n coated with tiny drops of silver. This pvered with chemicals which make them photo cells. The screen takes the place he film in an ordinary camera and each drop becomes electrically charged dependipon the intensity of the light falling on An electron beam from a nickel cathode hing the plate removes each charge, line he, from the plate in the form of electrical lises. Then, by means of complicated ical circuits, the impulses are sent over hr in the form of signals. The receiver consists of another complicated electrical circuit with from 16 to over 30 tubes, the largest of which is the cathode ray tube. This very roughly performs for television what the loud-speaker does for the radio. Its inside face is covered with fluorescent materials.

A coated nickel cathode in this tube produces electrons, or tiny particles of negative electricity, whose number depends on the strength of the broadcast signal from the transmitter as received in the tube. These electrons are attracted by positively charged electrodes and, acquiring tremendous velocity, are literally fired—as a stream—against the screen by an electron "gun," much as a hose discharges a stream of water.

Normally, this stream of electrons would strike the center of the screen. But, by means of deflection plates or magnetic sweep coils between which it must pass, the stream is deflected up or down, right or left. Delicate sweep circuits, as they are called, apply the correct voltage to these plates or current to this circuit and cause the stream of electrons to sweep over the fluorescent coating of the cathode ray tube. This coating converts the energy of the impinging electrons into light.

The spot of light moves so rapidly in forming the image by a series of closely spaced lines (525 lines for the entire picture repeated 30 times a second) that the eye actually does not see a single line, or even a single picture. All it can glimpse is smooth flowing, living action without interruptions.

In direct view receivers, this tube serves as the screen upon which the broadcast is seen. In indirect view models, a lens throws the image either on a built-in screen or projects it on a wall screen.

The cathode ray tube like other tubes in the receiver is made of glass and metal. After the tubes are sealed and evacuated of air, it

Here are post-war and pre-war versions of G.E. television sets. The servicemen in one picture are watching the action in one of the older, direct view receivers. In this type, the action is flashed directly on the cathode ray tube which serves as a screen. In the second, the action from the tube is transferred by means of special lenses to a screen. This permits the use of smaller tubes and provides a much larger image.





COPPER CLIFF

Stephen J. Dunn (Army), Frank Fletcher (R.C.N.V.R.), J. Coraddo Frattini (Army), Noble Galloway (Army), Adelard Gauthier (Army), Albert Gayler (Army), Frank Gramo-lini (Army), William L. Hall (Army), West Hobin (Army), Walter Johnstone (R.C.A.F.), Roy Lavigne (Army), Robert Lineham (Army) Joseph E. Marshall (Army), Walter Matashak (Army), Ernest E. Mayhew (Army), Harold MacLennan (Army), John R. McNeil (Army), Clare O'Neill (Army), Roland Phillips (R.C.N.V.R.), Samuel G. Porter (R.C.A.F.), Robert W. Smith (Army), Robert R. Stevenson (Army), W. Hedley Williams (R.C.A.F.), Thomas C. Acheson (R.C.A.F.), David Basso (Army), William Becket (R.C.A.F.), James A. Fairbairn (Army), Laurier E. Gagne (R.C.N. V.R.), Duilio Gattoni (Army), Oscar Gauvreau (R.C.N.V.R.), Aime D. Labelle (Army), Russell P. McKessock (R.C.A.F.), Bernard R. Russell P. McKessock (R.C.A.F.), Bernard R. Murray (Army), Bernard O'Neill (Army), Albert Paquette (Army), Laurier Sabourin (Army), Frank Sargent (R.C.A.F.), Mike Shalatynski (Army), Gordon H. Stalker (R.C.A.F.), Bernard St. Martin (Army), Gordon Telford (Army), Walter J. Van Exan (P.C.A.F.) Den Vices (Army) Alar Wasi (R.C.A.F.), Real Vezeau (Army), Alex Wasil-chuk (Army), John K. Duffin (R.C.A.F.), Nello Frattini (Army), Ulyas A. Kuula (Army), Napoleon Larocque (Army), Con-stant Lavallee (Army), William Muraska (R.C.A.F.), John R. MacLennan (R.C.N.V.R.), John Romanow (Army).

FROOD

Lionel Beaudry (Army), Fred Cheyney (R.C.A.F.), Alex F. Coulas (Army), Serge Ethier (Army), Wilfred Leigh (R.C.A.F.). William L. Morley (Army), Michael Pechkoff (Army), Gordon Ramsay (Army), Joseph Roland Riopelle (Army), Joseph Delval Si-mond (R.C.A.F.), William A. Stephens (Army), Ernest St. Louis (Army), William Swain (R.C.N.V.R.), Arne Virta (Army), Donald S. MacMillan (Army), Ray J. Abrams

A. Crane (R.C.A.F.), Wilfred Kunto (Army), A. Crane (R.C.A.F.), whited Rando (Fally), (A.Wajde (R.C.A.F.) Leonard Poulton (Army), Anthony Teddy J. Waide (R.C.A.F.) (Army), Daniel Thompson (Army), Benjamin W. Hurd (Army), Daniel J. McKerral (Army). Alfred Austin (4

GARSON

Franklin Lange (Army), Thomas D. Porttila (Army), Kenneth P. Stone (Army), Ernest Anderson (Army), James V. Armstrong (R.C.A.F.), Hector Charette (Army), John Langin (Army), George Wilson (Army). CREIGHTON

Aime Desabrais (Army), Rodolphe Giroux (Army), Yvan J. Lafleur (Army), Alphonse McFarlane (Army), Rolland A. Pilon (Army), Lewis F. MacDonald (Army), Leonard St. Amand (Army), Grant Villeneuve (Army), John J. Behenna (Army), Isidore Duhaime (Army), Eugene Lacelle (Army), Patrick G. Mulroy (Army), Herbert K. Russell (Army).

LEVACK

Lawrence Kutchaw (R.C.A.F.), George Stephen (Army), Edward M. Norrena (R.C.A.F.), John Yanda (R.C.N.V.R.).

PORT COLBORNE

ANOTHER GROUP RETURNS FROM THE SERVICES



Every day another group of former Incoites shows up at the Employment and Personnel Department in Sudbury for reinstatement with the Company after service in the Armed Forces. Among the men being welcomed back the morning of March 23, when the Triangle dropped in, were: Jim Graham, returning from the Army to Creighton as a driller; Cec Brodeur, from the Air Force to Accounting at Copper Cliff; Frank Welsh, former Frood timberman who qualified as a stationary engineer during his Air Force service; Jack Pigott, from the Army to Frood Engineering; Gordon Young, from the Air Force to Garson Mechanical; Harry Murdock, from the Navy to Creighton Mechanical. It's good to have you home again, fellows.

Bill Stanley Shymansky (Army), Cyril Hodgkins (Army), F. Michael (Army), D. Godin smaller. (Army), John Jones (Navy).

STOBIE

Matti Jouppi (R.C.N.V.R.).

CONISTON

Roy A. Bray (R.C.N.V.R.).

HURONIAN

Vincent Houlahan (Army). GENERAL

(Army), Eileen Van Allen (R.C.A.F.), Richard

REFINERY

Alfred Austin (Army), Lawrence Quigg (R.C.N.V.R.), Gordon W. Spaniel (Army). TOWN

John W. Blight (Army), Norman Harper

NICKEL AND TELE

(Continued from Page 9)

is necessary to eliminate undesirable gases contained in and on the metal parts in the glass, This is accomplished by induction heating which causes the metal parts to attain a tem-perature of 1850° F. Thus resistance to high temperatures and low gas content are essential properties of the metals used. These properties must characterize the metals in other tubes used throughout the radio industry.

Jukosky (Army), W. Goulding (Army), ing operations; resistance to corrosion by per-P. Elliott (Army), H. Coopman (Army), Edw. spiration or other corrosive factors; resistance Scott (Army), R. St. Louis (Army), Ross to warpage and distortion due to all causes, Lever (Army), Ray Bertin (Army), Don including high temperature. Accurate reten-Kramer (Army), Norm. Simons (Air Force), tion of shape and close clearance of all parts are most important especially as tubes become

Suitable electrical properties are required. especially proper electron emission characteristics. The metals also must be low in contained gas and readily susceptible to de-gassing, and must be easily formed and fabricated.

Besides all these qualities it is also essential that metal for many parts be either nonmagnetic, such as Inconel, and the nickelchromium Stainless Steels, or of high magnetic permeability such as Permalloy, particularly for shields external to the tubes. These mate-Donald S. MacMillan (Army), Ray J. Abrams (Army), Patrick J. Dwyer (Army), Emile Pellerin (Army), Andrew Rayne (Army). OPEN PIT Edmond Binette (Army), Cecil Burton (Army), William D. Collison (Army), James used, probably the bulk of cathode-ray tubes for television at the moment use a Stainless Steel usually containing 12 percent nickel. Nickel is the standard material for cathodes

in receiving tubes and for many other internal parts. The vacuum-tight seals between metal and glass use copper-clad nickel iron, cobalt iron nickel or a low chromium nickel iron.

There are a large number of alloys of a wide range of compositions that are used throughout the transmitting and receiving sets because of special electrical properties. For the most part these are standard materials for electrical and electronic applications and are not limited to television. They all are included among the many modern materials developed both prior to the war and since, which have helped give entirely new concepts of performance in the television receivers and to the transmitting facilities which will serve them.

STU MACFARLANE WRITES

Other characteristics likewise are important. From Esquimalt, B.C., where he is stationed These include: strength, even in thin sections with the Signal Corps, Stu Macfarlane sends and soft tempers to avoid deformation by con-greetings to all his old Inco friends. He was stant handling during manufacture; a high with the Electrical Department at Copper Cliff W. Bulleyment (Army), Edw. Wynn (Army), A. W. Bryson (Air Force), M. Richardson (Army), A. Crawford (Army), welds and resistance to oxidation during weld-Figure Skating Club.

Midget Teams Had Big Time at the Gardens

A "thrill that comes once in a lifetime' was the lot of a group of young Nickel Belt hockey players who were sent to Toronto to compete in the all-Ontario midget league playdowns held March 22 and 23 under the big top at Maple Leaf Gardens.

Teams from Garson, Falconbridge, Sudbury and Copper Cliff, sponsored by their towns' Athletic Associations or service clubs which gave them sports leadership during the winter, made the "dream trip" and had a wonderful time.

Copper Cliff successfully defended its provincial Midget N.H.L. championship with comparative ease in a big round-robin tournament, but had to watch St. Michael's go through to the all-Ontario midget title.

The boys were tickled stiff with the treatment they received at the Gardens, and seized every opportunity to improve their brand of play and add to their hockey lore. The public-spiritedness of their sponsors came in for much favorable comment.

Personnel of the Nickel Belt teams was: Copper Cliff—A. Biord, G. Byers, K. Cle-land, O. Macoritto, G. Tramontini, Z. Top-pazzini, E. Martel, D. Nicoli, H. Bellay, C. Tuttle, J. Toppazzini, R. Taylor, M. Farrell. G. Alcott, manager. B. McClelland, coach.

Sudbury-L. La roque, G. McGinn, R. Trainor, D. Kallico, S. Donies, L. Bolger, F. Harper, C. Mullen, A. Butler, J. Stacknik, D. Kallies, L. Cliff, B. Stesiuk, J. Soucie, G. Kallio, D. McDonald, J. Hinds. W. Lemieux, coach. L. Simpson, manager.

L. Simpson, manager. Garson-B. Thorburn, G. Morin, B. Kyrluk, H. Beadry, J. Gemmell, R. McNeice, M. Kyrluk, G. Joyce, V. Radey, J. McIvor, R. Bergeron, R. Laking, A. Nasi, H. Dubblestyne. B. McNeice, coach. S. Gemmell, manager. Falconbridge-L. MacMillan, K. Tulloch, B. Phipps, G. Armstrong, H. McNamara, P. Mc-Court, L. Blake, C Raymond, H. Kinloch, I. Sheppard, E. Blais, J. McLean, E. Rogerson, J. Cameron. J. McNamara, coach. A. H. Wilson and E. Jewell, managers.

Gordon Presents Inco Scholarships

At the annual Commencement Exercises of Sudbury Mining and Technical School on March 16, the International Nickel Company scholarships of \$50 each were presented to the boys with the highest standing in each of the four years of the mining course.

In making the presentations J. R. Gordon, assistant to the vice-president, remarked that the Company had been awarding the scholarships for 20 years to help and encourage boys with ability.

A survey covering the past eight years, he said, disclosed that 40% of the winners had gone on to university or intended to do so. Of the remaining 60%, approximately 90% had expressed a desire to continue in mining.

Arno Lahti, of grade 9, with a standing of 8577: Vincent Bozzer, of grade 10, with 8877: Clarence Pidwerbeski, of grade 11, with 80%, and Arthur Liinamaa, of grade 12, with 85%. were awarded the scholarships. For both Clarence Pidwerbeski and Arthur Liinamaa it was the third year they had won Inco scholarships

George McGinn, left wing, and Don Harper, centreman, both of the Sudbury Midget League entry, had a huddle with Bob Davidson, Toronto Maple Leaf star.



Jerry Toppazzini and Keith Cleland, of the Copper Cliff team, listened intently while Foster Hewitt of hockey broadcast fame explained the Maple Leaf Gardens layout.

MARKSMEN ORGANIZE

After five years of inactivity, Garson Rifle Club is back in the news again. Executive elected at a reorganization meeting was: honorary president, Foster Todd; president, Ralph Armstrong; vice-president, Jack Manning; secretary-treasurer, Frank Longe; executives, Bill Moreau and Tom McNeice. What the superior man seeks is in himself plans include renovation of the old Garson rifle range.

FOXY CUSTOMER

A policeman stopped by a pool in the park. In front of the pool was a huge sign which read:

"Swimming positively forbidden." In the pool a man was splashing about.

Manning: executives, Tentative Id Garson Manning: Tm going to arrest you, "I'm going to arrest you," he said, "as soon as you come out of there!" "Ha-ha-ha!" the man cortled, "I'm not com-

ing out-I'm committing suicide."

but what the small man seeks is in others.

Producing Starting Sheets at Port Colborne



built up into full-size nickel cathodes in the prevent the nickel from plating around its Kaduc are seen pulling a plated blank from a electrolytic tanks, is an interesting feature of edges, the stainless steel blank is immersed in tank. Tony, on the right, is ready with a the process at the Nickel Refinery in Port an electrolytic tank for 48 hours. During fresh blank which will replace the plated one. Colborne.

Production of starting sheets which will be inch thick. Enclosed in a wooden frame to layout Fred Speers, George Scott, and Tony Tony, on the right, is ready with a Colborne. The "starting sheet" for the starting sheet, process, pure nickel to the thickness of .040 Some 3,000 stainless steel blanks are used at the blank 28 by 46 inches and one eighth of an In the first picture of the accompanying helps them to withstand the corrosive effect

ping the starting sheets from the steel blanks. The thin sheets of nickel peel off easily from the blanks. The latter are then washed carefully and are ready to return to the process. Pat can spot-weld straps on about 1,100 sheets Incidentally Nick's official classification is in an eight-hour shift. "stripper," but definitely not of the night club variety.

It is very important that the nickel starting sheets be as straight as possible when they are dropped into the electrolytic tanks. A crooked or badly warped sheet would cause a short circuit in the tank, hogging all the power and thus reducing plating efficiency. On the right in No. 3 Leslie Istock is trimming feathered bonding liquid for five minutes and then comes edges from the top and bottom of a sheet with the trimming shear, while Joe Gobels and Joe Toth are busy smoothing and straightening.

each sheet is suspended in the electrolytic tank the course of 10 days, they will grow from and through which the electric current is con- $12\frac{1}{2}$ -lb. "beginners" into full-fledged 160-lb. and through which the electric current is conducted, and this is the operation being per-formed in No. 4 picture of the layout. Jim in a solid cathodes. The bonding process results Demeter (right) and Pat Neville are the work-oxide film on the starting sheet there would be men on the job. The straps are made of a tendency for the cathode to split when being electrolytic nickel too, although the sheets from cut for packing and shipping.

of the electrolyte in which they are immersed, which they are cut are left in the tanks only In the second picture Nick Foressi is strip-ping the starting sheets from the steel blanks, which is easier to handle. The straps are spot-welded to the sheet, each strap receiving three welds. A team of workers like Jim and

The starting sheets are now ready for bond-ing. In No. 5 Joe Sandelli, head stripper, is about to lower a rack of sheets into the bonding liquid, a brew of copper sulphate, sulphuric acid, etc., which has a "de-skinning" effect on the sheet, cleaning off any oxide film or other impurity it may have picked up during the stripping operation. The sheets remain in the a rinsing in a neighboring vat containing a beric acid solution.

And so the starting sheets are ready for Next step is affixing the two straps by which suspension in the electrolytic tanks where, in

For Nickel Seen by **President Stanley**

(Weiland-Port Colborne Tribune)

Unusual interest attaches to the announcement at the International Nickel Company's annual meeting by President Robert C. Stanley that post-war plans, which have taken much time and study, are now being put into effect. The problems of re-creating and developing demand for nickel in overseas markets are receiving special attention at the company's London office.

The International Nickel Company has long been known as one of the most enterprising manufacturing concerns in taking advantage of technological developments and in creating new uses for its products. That the company intends to maintain this progressive policy was indicated by Mr. Stanley's remarks. He had this to sav:

"New applications such as the use of new alloy steels in the place of carbon steels will require nickel. Two great technical developments, Radar for finding distant objects and Loran for determining one's location, will make peace-time travel by plane and ship safer and Micro-wave beam transmission perbetter. fected during the war will broaden communications. All of these devices employ nickel and nickel alloys in the numerous amplifying tubes and in many cases nickel or platinum is used in the powerful transmitting tubes.

"New alloys containing nickel for high temperatures such as those required for gas turbines will be necessary. Heavier electro-plating in the automobile and electrical industries will use more nickel. Stainless steel, to which we are devoting much technical study, will require a large tonnage of nickel. Coinage also is now receiving especial attention in all parts of the world and will need nickel.

"In adition to the consumption of refinery output we believe also that our mill products will be in demand. The maintenance of navies and merchant marine ships will use a substantial tonnage of Monel metal and other nickel alloys. Large quantities of these products will be consumed by the petroleum and chemical industries.

"As sales to these prospects are realized it may be assumed that the business of Canada's great metal enterprise will resume its upward trend and will continue to occupy its place as a growing industry."

Left to right, Lenore Beaver, Lorraine Hamilton, Mary Lou Simcox, Ann Aubin, and Katharine Ferguson, gowned for the Flower Ballet. (Photo by W. G. Beaver).

CPECIAL decorations, beautiful costumes, and the skill and grace of outstand $oldsymbol{D}$ ing young figure skaters will feature the 10th annual Carnival of Copper C i ${\mathbb Z}$ Skating Club at Stanley Stadium on Friday and Saturday, April 12 and 13. About 100 will take part.

The rink will be transformed into an Arctic scene, the ice painted pure white and decorated with igloos.

A Flower Ballet, in which 16 young ladies will be costumed in shimmering white, will be one of the outstanding numbers. Another colorful senior presentation will be Mounties on Parade, with a cast of 20.

The chief junior effort will be Toyland Fantasia, staged in the workshop of the old Toy-maker in the frozen North. A swarm of youngsters will impersonate the toys which come to life in his dream.

again perform for the Carnival. will be pleased to learn that for their overture to it being one of the most successful in the young son, Bruce, aged one year. He's cer-they will play "Lustspiel" by Keller-Della, the history of the Club.

test number in which they won top honors for bands at the recent musical festival.

Two out-of-town skaters will be added attractions at the Carnival. Hugh S. Pope of London, brother of Joe Pope, professional of the Copper Cliff Skating Club, will be seen in three colo numbers, a comedy turn, a novelty act. and a military number. A former pupil of hir, Miss Winnifred Harpell of Port Arthur, will also be a soloist. Although only 16 she is the senior ladies' free-skating champion of the Thunder Bay Skating Club.

Hard-working committees under President Dan Totino and his Coniston Band will Charlie Dorian have arrangements for the Little wonder that Al Scammell, of Copper gain perform for the Carnival. The public Carnival well in hand, and everything points Cliff First Aid department, is proud of his



BRUCE SCAMMELL

Little wonder that Al Scammell, of Copper



Annual Skating Carnival Will

Be Staged on April 12 and 13

APRIL, 1946



Concentrator Team Winner Of Annual Parker Contest

A CRACK crew of First Aiders from Copper Cliff Concentrator won the Inco inter-plant First Aid championship and the R. D. Parker Shield at the Inco Club in Sudbury the night of March 28. In floor work and oral tests the Concentrator team had a margin over Garson Mine, winners of the underground semi-final event.

The keenly contested final was witnessed by a representative gathering which included machine and it many of the First Aid men who had been eliminated in the earlier stages of the competition.

Announcing the winner, General Superin-tendent R. D. Parker said that a total of 145 men had competed in the various contests by which the new holders of his shield had been determined. Speaking of First Aid in general, he announced that in the 10 years since the Parker Shield event was inaugurated, a total of 5,000 men and women had received First Aid instruction at Inco plants, and of these more than 2,500 had qualified for awards from the St. John Ambulance Association. He expressed his personal thanks as well as the appreciation of the Company to all who had in any way contributed to the success of the competition, and mentioned particularly Tom Crowther, Assistant General Safety Engineer, who had been largely responsible for arrangements of the annual event.

Both Concentrator and Garson teams gave a convincing exhibition of First Aid skill in negotiating the tricky problem set for the final. The time was 11.00 a.m., the place a quarter mile from Hanmer village, and the weather fair and warm. The captain of the team was the only one allowed to read the problem, which told him that his name was John Brown and that he was a farmer with a knowledge of First Aid. He was supposedly helping a friend build a house when in some manner the friend accidentally fell from the scaffold and was in jured.

Brown knew that three neighboring farmers also trained in First Aid (the other members of his team) were working in the fields close by but were not within hailing distance.

He had a small First Aid box in the building. There was a telephone in the general store at Hanmer. He had full permission to use any props in whatever manner he desired.

Until the arrival of a passerby whom he sent to summon the other three farmers from the field, the First Aid captain had to play a lone hand in treatment of the patient. Once his pals were called to the scene of the accident, care of the patient went ahead in the usual way.

A key move on the part of the captain was prompt examination of the patient to discover and treat for arterial bleeding. Other injuries to be treated after the rest of the team arrived from the "field" were fractured leg and fractured jaw, as well as shock.

Dr. P. H. Kyle handled the oral test for the final contest, and judges of the floor work were Dr. H. F. Mowat and Dr. C. A. Stephens.

As usual the setting for the competition was realistically arranged.

In the first picture of the layout on the opposite page are shown the realistic 'props' erected for the surface plant semi-final at the Inco Club on March 18, with the Refinery team in action.

The problem for the competition, prepared by Tom Crowther, was: "Four men, driving to Sturgeon Falls, are about five miles from there when they see a man struck and knocked down The car does not stop. A highway by a car. First Aid post is located 50 yards away, containing First Aid equipment and telephone. Weather: 5 below zero. Time: 10 a.m. Time limit, 25 minutes.

The competing teams arrived on the scene from behind a backdrop painted to resemble

the car they were supposed to be driving in, machine, and then patched up the injured pedestrian.

Judges were Dr. H. F. Mowat, Inco chief surgeon, and Dr. C. Cowan of Levack; conducting the oral tests was Harold Fullerton of Garson, and timekeeper was Ed Chateauvert of Frood. Chairman was Tom Kierans of Frood

For the underground semi-final on March 21 this was the problem posed by Tom Crowther: "The time is 11 a.m. The place is a new stope starting at level. You four men (the First Aid team) are members of a stope crew. Another man belonging to the level is scaling down loose, and suddenly you hear him shout for help. On reaching the scene you find him pinned under a piece of loose. Act as you should."

Once again cleverly arranged "props" added much to the realism of the performance. Judges were Dr. Mowat and Dr. C. A. Stephens of Copper Cliff. The oral examination was conducted by Angus Harrison, and timekeeper was Bob Wotton. Chairman was Tom Crowther.

For both the semi-final events and the final contest the "patient" was the perennial Tommy Newman of Frood, who has been cheerfully submitting to "treatments" in Inco First Aid contests for the past five years.

the eight teams which took part in the semifinals after winning inter-department competitions at their respective plants.

2. Frood Mine's entry, which placed 3rd for underground: Cyril Varney, Vic Laporte, Bill Gaylor (captain), and Weir Stringer. Coach was Ed Chateauvert and spare was Bill Young.

3. Levack Mine, which placed 4th for underground: David White, Dar Storey, Fred Spencer, and Willard Petersen (captain). Coach was Dr. Cowan and spare was E. Armstrong.

4. Creighton Mine, placed 2nd for under-ground: Harry Farrell, Norman MacDonald, Carl Clubbe (captain), and Bill McKee. Coach was Dr. McGruther.

5. Garson Mine, which copped the under-ground semi-final: Archie Bowen, Harold Sutton (captain), Bob McCauley, and Ben Spencer. Coach was Ollie Matson and spare man was V. Stone.

6. Coniston, which finished 2nd for surface plants: seated, Alex Beauparlant, Ralph Taylor (captain), Ed Albert; standing, Adjutor Belanger, G. Tessier, and Bill Bray (coach).

7. Open Pit, placed 4th for surface: seated, Bill Olver, captain; standing, Tom Hearty, Ernie Tweedle, and Ed Wolfgram. Coach was R. Wotton and spare was A. Plante.

8. Concentrator, which emerged triumphant among surface plants: seated, Alex Blanchard, captain; standing, Romeo Dominic, Arne Kau-hanen, and Alf Desotti. Coaches were G. Scully and E. Stoneman, and spare man was Bill Cook. This team went on to win the Parker Shield.

9. Copper Refinery, which was 3rd for surface: seated, Ed Sutherland (captain); standing, Jerome Bernard, Jack Latreille, and Joe Rodney. Coach was Tom Scanlon and spare man was Stewart Smythe.

ON THE MAKE

"How's your patient, Doctor?" Other pictures on the opposite page show ing he took a turn for the nurse."

Last Post-Mortem of the Season



Gathered around the "post mortem table" for their final hot stove session of the curling season are the 1946 winners of the Collins Cup, blue ribbon award at Copper Cliff Curling Club, posing under the watchful eye of Bill Jessup (left rear), ice maker deluxe. Seated at left is George Ferguson, skip, who won the Collins in 1944 with the same team and also lifted it in 1936 with a team of which Sid Smith (seated at right) was also a member. The trio of besom-wielders standing at the end of the table is Johnny Cecchetto, Ernie Collins (it was past his bedtime), and Wes McNiece.

INCO TRIANGLE

Completes 40 Years With The Company

Although he has neither a white beard nor a case of the gout to substantiate the claim. John Roland O'Donnell, Works Auditor at Port Colborne Refinery, has completed 40 years' service with Inco. At age 53 he qualifies as another of those "young oldsters" who got away to a boyhood start with the Company and have been going strong ever since.

Born at Madoc, in Hastings County, in January of 1893, Roland was at the tender age of three when his father, a farmer, moved to Copper Cliff to take a job at the old Evans Mine, near the Copper Refinery site. Two years later the family moved to a pioneer log house on the Clara Belle hill above the Stoddart home.

Early days in the thriving little mining camp were interesting enough from an adult point of view, but there was little diversion for the rising generation. With Billy Chapman, Jack McNevin, and the rest of the gang, Roland went swimming at the old Lady McDonald dam until the health officer caught up with them, or stood under the arc lamp on the board walk by the McIntosh block in the evenings and swapped stories.

When he was 13 Roland became office boy and mail clerk for the Company in the Town Hall building, under Chief Clerk Robert Kirk-



J. R. O'DONNELL

wood. He drew \$23.00 a month and figured that was some punkins. After three years he became junior clerk, then went to Shaw's Business College in Toronto for a secretarial course. For three or four years after his return he worked as a steno in various offices, then graduated to general clerical work. Inco accounting department was opened in Toronto in 1918 under F. P. Bernhard, Roland was transferred there, and when it was closed by the National Board of Fire Underwriters in 1922 he went to Port Colborne as assistant works auditor to E. C. Lambert.

On transferring to Copper Cliff in 1933 he became assistant works auditor to R. L. Beattie, moving up to works auditor in 1935. He re-turned to Port Colborne Refinery as works auditor in September, 1940.

He was married at Pittsburgh in June, 1922, to Miss Eva Eichenlaub. Last year they built a lovely new summer place at Rathfon Point on Lake Erie.

Secretary of the Copper Cliff Club and also the Inco General Athletic Association for years, he is now chairman of the Inco Recrea- not be located in buildings above the cellar tion Club and is a member of the Port Colborne Public Library Board.

honorable Inco service and is now living at which are part of the stove they supply.

Real Shooting Was Done at Night



Dr. Harry Feldhans (left) and "Chick" Cecchetto posed modestly with the heads of two monarchs of the Levack glades which fell before their unerring marksmanship during the hunting season. "Doc" says these two were mere infants compared to the big ones shot by "Chick" and his gang in the evenings by the old cook stove.

Stirling, Ont., where he will celebrate his 80th birthday in May.

He has two sisters, Miss Alice O'Donnell of Toronto and Mrs. Alex Guerriero of Ridgewood, New Jersey. Another sister, Miss Mary of New York, who taught school in Copper Cliff for five years and then entered the nursing profession, died in January, 1945.

Affable but efficient, Roland has a wide circle of friends who value their association with him in Inco service.

Regulations for **Oil Burners Listed** By Fire Inspector

Numerous inquiries have been received by Fire Inspector Bill Humphries regarding regulations for storage of oil for oil burners and other details in connection with oilburning equipment.

Bill points out that there are no Dominion or Provincial regulations governing the instal-When the lation of this type of equipment, the matter having been left to local control. In the absence of such regulations the rules laid down (U.S.) cover installations in Company build-Some of the points covered are: ings.

1. Oil burners should be of approved type. The Canadian Standards Association at the National Research Building in Ottawa has a testing laboratory and conducts tests on oilburning equipment, as also does the Under-writers' Laboratories in the United States. Equipment approved by either of these or-6. Gravity supply tanks shall not exceed 275 ganizations is labelled, and Bill says it is good policy to look for that label.

Tank inside buildings.

or basement.

No unenclosed tank shall be within seven His father retired in 1922 after long and feet of any fire or flame, except the small tanks

Oil tanks kept in the basement of buildings shall not have a capacity of more than 275 U.S. gallons each. Not more than two such tanks may be kept in a basement. Where the tanks are enclosed in masonry, however, they may have a capacity greater than 275 gallons. 3. Tanks above ground and outside of buildings.

The distance from outside above ground tanks to the nearest building shall not be less than that set forth below:

50 U.S. gallons or less, minimum distance of five feet; 1,100 U.S. gallons or less, minimum distance of 10 feet.

4. Construction of tanks.

Tanks inside buildings shall be constructed of steel or wrought iron of a minimum guage (U.S. Steel) in accordance with this table:

7 to 180 gallons, minimum 16 guage; 181 to 275 gallons, minimum 14 guage; 276 to 560, minimum 14 guage; 561 to 1,100, minimum 12 guage. The last two must be enclosed in masonry.

Outside above ground tanks, including tops, shall be constructed of steel or wrought iron in accordance with the following regulations:

Horizontal or vertical tanks, 1 to 60 gallons, minimum thickness 18 guage U.S. Steel; 61 to 350 gallons, 16 guage; 351 to 560 gallons, 14 guage; 561 to 1,100 gallons, 12 guage.

5. Pressure tank feed shall be used only with burners arranged to prevent abnormal discharge of oil at the burner by automatic means specifically approved by Underwriters Laboratories or Canadian Standards Association for the burner for which it is used.

Pressure tanks shall not exceed a capacity of 60 U.S. gallons and shall not be operated

U.S. gallons in individual capacity. Where more than one gravity tank is used, such tanks shall be connected to the feed pipe leading to Oil tanks larger than 60 gallons (U.S.) shall the burner through a manually operated, approved, three-way valve in such a way that only one tank can discharge its contents at a time.

> Anyone desiring more detailed information has only to phone Bill at 2541.