

INCO TRIANGLE

Midget Hockey Makes Big Hit With Nickel Belt Fans



Safe Shifts Are Rolling Up

Last issue of Triangle brought news of the spectacular safety performance of the Martin Horne Shift at Frood. This time it's the two INCO smelters that provide the big interest from a safety point of view.

At Coniston the entire plant finished a record-breaking run of 261 days without a lost-time accident, bettering the previous mark of 254 days and earning warm commendation from Superintendent E. T. Austin.

At Copper Cliff employees are watching with keen interest the safety performances of three different shifts, each of which has already broken the plant record. Not since they went to work on the new copper reverbs in November of 1936 have Jack Johnson and his men had an accident chalked against them, and as Triangle went to press they showed a total of 51,275 safe shifts. In the Orford building the Frank Wolfe shift, with a previous best mark of 29,639 safe shifts, haven't had an accident since November of 1936 and, barring misadventure, will reach the 66,000 mark by April 29. On that date Somers and his men on the nickel reverbs will also reach the 66,000 mark. Their last accident was on August 1, 1937, and their previous best showing of 46,033 constituted the plant record.

FIRST AID CONTESTS

In recent inter-department First Aid competitions the Mechanical Department, captained by Gordon Guthrie, retained the P. F. McDonald Shield at Copper Cliff

smelter by defeating Concentrator (B. Allen) in a final contest. Teams eliminated in the semi-finals were Electrical No. 1, N. Klodniski; Electrical No. 2, A. Young; Transportation, W. Leitch; Orford, L. Aubin; Converter, J. Lamacraft; Reverberatory, G. Allcott. Other members of the victorious Mechanical team: T. Somers, A. Simmons, H. Gipson, W. Carleton.

At Coniston the McDonald Shield was won in inter-department First Aid by Transportation, represented by R. Gustin (captain), R. Hood, J. Jocondo, and G. A. Chisholm. Other teams taking part: McMullen's Shift, Geoffrey's Shift, Mechanical Department, and Stevenson's Shift.

The F. P. Benard Shield at ORCO, literally hot-bed of First Aid competition, this year was picked off by the Mechanical Department, which went on to win the Parker Shield and the Inter-Plant championship. Other teams competing at ORCO: Office-Lab, Harry Lipscombe; Casting, J. Marshall; Tankhouse, Paul Asam.

The H. J. Mutz Shield at Creighton was awarded to the No. 3 Shaft Surface quartet captained by H. Stephenson, which went on to represent the mine in the Inter-Plant event. Other teams competing: No. 5 Shaft, A. Emblin; No. 4 Shaft, A. Banas; No. 3 Shaft, H. Simmons.

At Frood the Mutz Shield event has yet to be held.

METAL "ON RYE"

Precious metal "sandwiches" made of platinum foil spread between two layers of gold are used for certain types of hammered dental fillings. The platinum is used to increase the hardness of the gold.

"Half-Pints" Pack Them In

Drawing gates which ran as high as 750 fans, Georgetown "Maple Leafs" and Copper Cliff "Bruins" played a thrilling midget hockey series at Stanley Stadium for the "Ontario National Hockey League" championship and the trophy presented by Frank Calder, N.H.L. president.

Flashing all the tricks of the seniors, the two lineups of "half-pints" put on what many termed the best hockey show of the season. Copper Cliff took the first game 10-9, dropped the second 1-8, and came through in the saw-off 8-0. Their strategy was to bottle up young "Apps" Beaumont of Georgetown, who scored 11 goals and two assists in the first two matches. Practically handcuffed by his checks in the final game, Beaumont failed to break away at all. In the meantime the Cliff's "Hill" Rogers collected six goals and an assist to put the verdict on ice. "Herk" Flynn, Cliff goalie, got a great ovation for his shutout.

Photo shows both teams, Georgetown on the left. Inset is Gordon Alcott, sponsor of the midget hockey movement in Copper Cliff and organizer of the Ontario playdowns.

GUESSING IS OVER

On the 1939 models of one well-known make of automobiles, the electrical mechanism which indicates the direction the driver intends to turn, uses platinum alloy contact points in order to assure dependable performance.



Fine Equipment Trains Students

Home economics and machine shop instruction are very popular features of the training at Copper Cliff High School. Study periods totalling two and one-half hours each week are set aside in which the girls of the first form take Home Economics, covering cooking, sewing, laundering, table service and grooming. First form boys get the same amount of time in which to learn machining, woodwork, metal work, drafting and electricity.

When students reach the second form they are allotted a minimum of two and one-half hours for this type of study, but many wish more in which to specialize. Girls among the latter have the option of dropping some other subject to follow the line of their choice, and may have an extra four hours per week of instruction in it. Boys wishing to specialize may have an extra five and one-half hours. Students from the higher forms also have the option.

As is obvious from the accompanying photos, both girls and boys have the best of equipment with which to take their instruction, and it is hardly necessary to say that they use it to capacity. There are some 200 pupils in the school, of whom about 25 are from Creighton.

1 It's wash day, and three trimly clad co-eds are going through all the motions of getting out the well-filled weekly clothes-line. Beatrice Goudie is the one in the centre—or maybe we shouldn't mention any names for fear their mothers will get ideas.

2 Ontario Basso, Harold Heale and Richard Dopson are intent on a job at the lathe, and have resorted to the instruction book to settle some operating point on which they have disagreed.

3 Like a scene from the kitchen of a high-class hostelry is this snap of the culinary department at a Home Economics class. Looks like guests are expected for dinner, too, judging by the number of hands on the job and the pots and pans in evidence. That's Lois Blackwell on the left, and Margaret Flynn at the right.

4 All safety precautions are strictly observed in the school machine shop, just as they are in the Smelter shops. These two workers protect their eyes from flying splinters as they make a careful cut with the big electric saw.

5 And, in the meantime, the table is being laid for a tasty meal by Jean Gifford, while Barbara Germa gives the furniture a last-minute lick with the duster and Dorothy Acheson brushes up with some pointers on "How to Win Friends and Influence People."

6 Graham Byers holds tight while Toivo Vickman twists himself into a knot to make sure a slick job isn't spoiled in the final stages by a careless bit of workmanship. The boys take great pride in the models or pieces of furniture they produce, and turn out some beautifully finished jobs.

Instructress in Home Economics at the school is Miss Winnifred Walton. The machine shop classes are supervised by John Van Nest.

49 IN CLASS

Port Colborne: The First Aid Class of 49 had their examination on March 21. In his last lecture, Dr. MacKenzie summed up the story to the class very forcefully in the following sentence: A doctor's duty is to protect life by stopping the disease, and a First Aider's duty is to protect injury by stopping accidents, working safely themselves and passing on the advice to their workmates.

In the manufacture of playing cards, printing is done with plates of pure nickel in order to attain a smooth, slick finish.



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The Youngsters

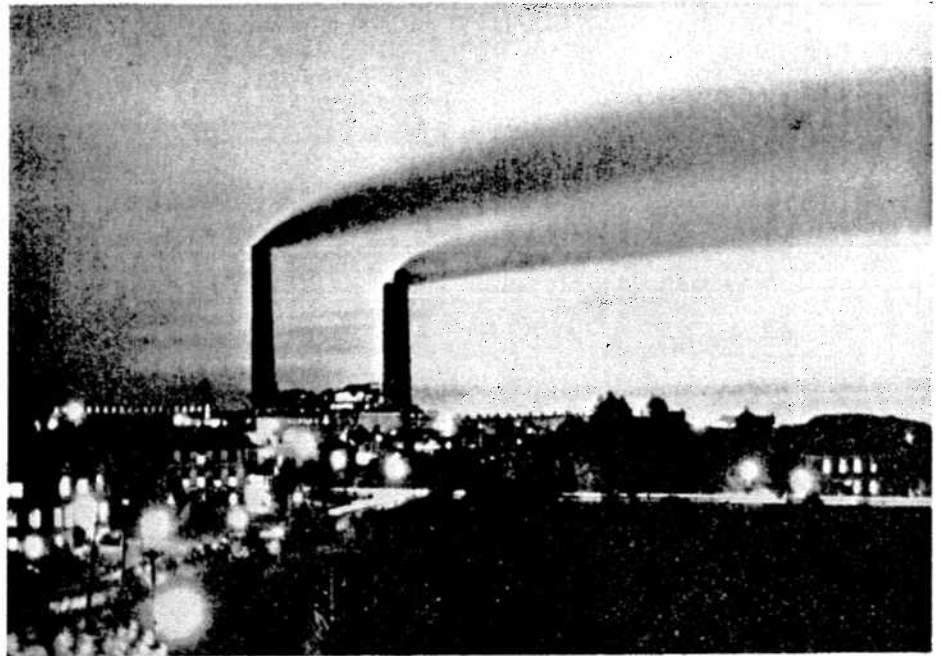
The run of the news and pictures in this issue of Triangle happens to point particularly to the keen interest taken in the organization of children's activities at all INCO plants. There's the "National Hockey League" midget hockey, incidentally one of the finest crowd-pleasing ventures yet launched in the district. There's the Coniston program which, as at other plants, provided for fully equipped teams in junior, juvenile and midget hockey classes. One saw a group of half a dozen eager youngsters getting special tips from the Company's Chief Surgeon at the inter-plant First Aid contest. At the Stadium wee mites flooped and cavorted throughout the winter in the figure-skating classes, with professional instruction. Every encouragement is given youngsters by the different ski clubs, each of which appoints one or two of its members to bring along the beginners. At the Employees Club girls and boys take part in gymnasium classes. Educational facilities include the best of equipment for teaching students to use their hands as well as their heads. All the well-known movements for appealing to the imagination and fostering the team spirit of the rising generation, such as the Scouts and Guides, are carefully developed. And summer is coming with a range of juvenile activities equally broad as that which occupies the winter months.

In their tour of Canada the King and Queen will see no streets lined with happier, better cared for kiddies than they will see in Sudbury, melting pot of many nations. And, we're sure, nothing could be better calculated to thrill Their Majesties with the true substance and greatness of their Empire than the Nickel Belt's ten thousand cheering youngsters, right of mind and heart and body.

Missing the Boat

There was a substantial turnout for the annual inter-plant First Aid contest early this month, but it was confined chiefly to those actively connected with the work. INCO employees would be well repaid for a greater display of interest in this unusually entertaining and instructive event.

Competitive color aplenty is provided in the battle of quick-thinking, experience and training in St. John



Allan Stemp, of the Copper Cliff Club, took this unusual picture of Copper Cliff town and smelter by night. Among other things it indicates that the electrical department is on the job.

Ambulance work which teams representing all the Company plants stage for the Parker Shield. What is more, no matter how few pointers on First Aid procedures the spectator is able to pick up from watching the contest, his time is well spent because he never knows when an emergency may arise where the application of even a little knowledge of the right thing to do may hold a loved one from death until a doctor can get to the scene.

By changing the venue of the contest to the Employees Club in Sudbury, the officials in charge have made it convenient for many more to attend, and spectator conditions are very favorable. With the prospect of larger attendances, features would undoubtedly be introduced to make it simple for the layman to follow what's going on.

"Z" Nickel

Heat treating which has been used so successfully in the production of high strength alloy steels is now being applied to a nickel alloy which—in addition to the mechanical properties of such steels—has the corrosion resistance of nickel.

While this new material is an alloy, it contains 98 per cent. nickel. It represents the result of more than six years of laboratory developments and field study.

Introduced as "Z" Nickel, the alloy has a strength of from two and one-half to four times that of ordinary structural carbon steel. In its unhardened, or annealed condition, it fabricates almost as easily as pure nickel. Such operations as bending, drawing, machining, and hot forging are accomplished

readily. The metal can be heat-treated after fabrication with little if any distortion since heat-treating operations are carried out at low temperatures—890 degrees F. to 930 degrees F. for six to 16 hours.

"Z" Nickel is another example of the ceaseless seeking by INCO's research forces for new uses for the product of its mines, smelters and refineries.

The Carnival

Now almost professional in the scale and standard on which it is presented, the annual Copper Cliff Skating Carnival remains nevertheless one of the most refreshing and wholesome of all the entertainments we in this district are privileged to enjoy.

In the short space of three years the Carnival has grown from a comparatively unpretentious beginning to an extravaganza that is definitely "big time." But back of the curtain of costumes, makeup, decorations and polished skating is a scene which everybody in the audience can visualize full well. It is a scene of frantic last-minute activity, of mothers cutting and sewing and fitting, of youngsters wriggling and racing and getting underfoot, of grown-ups haunted by the fear that at some crucial stage in the performance they will sprawl ignominiously on the slippery surface in full view of their friends.

This is the charm of a "home-grown" show. Out of all the chaos of preparation and doubt crystallizes a spectacle unsurpassed in the whole wide world. And both performer and spectator go home proud and happy. There's nane like oor ain folk.

Heroic Rescue Wins Recognition

For their courage in the face of grave danger of which they were fully aware, and for the speed and dexterity with which they effected the rescue, Reg. Burkitt and Bob Murray of Frood last month received the Medal for Bravery presented by the Canadian Institute of Mining and Metallurgy.

1 It was 1.15 a.m. of Wednesday, December 14, and the scene was 47.75 stope on the 2000 level at Frood Mine. Murray (left), aged 26, timberman, married, and Burkitt, aged 23, driller, single, completed lighting fuses for a 36-hole blast in a breast of the footwall.

2 They retired to 47.753 manway to go below while the blast did its work.

Murray arrived at the manway first, and had gone down one seven-foot ladder, and Burkitt had just arrived at the top of the manway, when an unexpected explosion occurred in a new cut about 45 feet west of the manway in the same stope where three other men were lighting fuses for a 27-hole blast. These men were James France, Andy Wargo and Joseph Paquette.

Burkitt promptly realized that something had gone seriously wrong, and when he heard France call to him, he went immediately to his assistance. He found France about 20 feet from the new cut, groping his way toward the manway, his light being broken.

Burkitt, realizing that two other men were still at the new cut, where some 20 holes had been lit, left France and went to help the others.

About 15 feet further on he found Wargo, who by this time had managed to regain his feet after having been knocked down and seriously injured by the blast. Wargo's light had also been broken. He assisted Wargo back to the point where he had left France, and at this time was joined by Murray, who had re-entered the stope and had come immediately to his aid.

Murray assisted Wargo and France back to the manway to safety.

Burkitt returned to the new cut to look for Paquette, whom he found lying on his back on the staging about five feet from the floor.

In this position Paquette was directly exposed to the full force of the remaining holes at such time as they would detonate. Since one hole had already detonated, it was impossible to tell at what second succeeding holes would commence firing.

In the dense smoke from the burning fuses Burkitt assisted the injured man to the floor, at which moment he was rejoined by Murray, who had taken Wargo and France to the manway.

Burkitt and Murray raced to the manway with Paquette, half-carrying and half-assisting him.

The last member of the party to leave the stope, Murray, had only reached the second ladder, but was in a place of safety, when the remaining holes commenced to explode.

3 At the annual C.I.M.M. convention, held in Quebec, Murray and Burkitt were snapped by The Triangle camera as they received recognition for the rescue of their comrades. President E. A. Collins (right), donor of the "Victoria Cross of the Institute," is reading the citation prior to presentation of the medals, one of which was received also by John Chester for valour in an Alberta coal mine accident. It was an impressively solemn sight to see the large congregation of leaders in the mining and metallurgical industries, gathered from all over the country, stand to attention while honor was done these courageous young men. Facing the camera, at the head table,



were Dr. Frank Adams, Professor Emeritus of Geology at McGill, and H. W. McKiel, president of the Engineering Institute of Canada.

Insets show Dr. Selwyn G. Blaylock (left), vice-president and managing director of Consolidated Mining and Smelting Company, about to make presentation, at the C.I.M.M. meeting, of the International Nickel Company platinum medal to Oliver Hall, formerly INCO's superintendent of mines and now consulting engineer for Noranda Mines Limited. The medal is offered for the year's outstanding achievement in mining and metallurgy.

Men's Doubles Hotly Contested

Port Colborne: The Inco Recreation Club men's double tournament recently completed was a real success. All matches were very keenly contested, and very close games resulted. The tournament was split into three groups. Eight players in the "A" group played a round-robin and the winners, J. Anderson and E. Winn, receive the handsome silver buffet dishes donated by E. C. Lambert last year for yearly competition. A. Hicks and E. Neff turned in a sparkling evening's badminton to win the "B" group of nine teams, taking a close three-game match against D. Green and A. Phillips. The consolation round of this group was won by R. "Nipper" Wilson and F. Noble, defeating L. Lewis and L. Lambert in a close 21-19 decision. In the "C" group of eight teams, R. Howard and W. J. Freeman battled their way into the final round against A. Harvie and J. Andrews. An interesting three-game match was necessary before the teamplay of Howard and Freeman overcame the snappy game turned in by the fast-stepping Harvie. The consolation winners of "C" group, J. Ivan and V. Thomas, deserve special mention. Both are newcomers to badminton, and they will bear watching in future tournaments.

Frood Welfare Stages Ski Meet

Frood Mine Welfare Association's annual ski meet again proved an outstanding success last month. The downhill and slalom events were held on the north face of the ridge of hills dividing King and Kathleen streets in Sudbury. Ernie Impola captured first place in both events, with E. Mullola and O. Salo dividing the second and third honors. There was also a short cross-country race for ladies which was won by Mrs. E. Mullola, closely followed by Mrs. T. Aikio and Mrs. Aurinen.

The men's open cross-country race had to be postponed until the following Sunday, however, owing to the condition of the track, and even then conditions were not of the best. The class of skiing was nevertheless top-notch. Over the eight-mile course, with six runners competing, only five minutes separated the first and last man. Paul Jansen of Fort William fame was first, with L. Huubki second and H. Herranen third. The Welfare Association donated three trophies for each event. Officials in charge were Ted Dandy, George Walla and Ed. Sandbloom.

GLEE CLUB GETS AROUND

Port Colborne: The Glee Club under the direction of Reg. Steeves have been singing themselves to a prominent position in town. They supplied the music at the evening service of the United Church, the Baptist Church and the Presbyterian Church, on different evenings. Just another way of our co-operating with our community.

Big Three of Senior Hockey

"Mickey" McGlashen, great-hearted hockey veteran, was adjudged Nickel Belt senior hockey's most valuable player in 1938-39. After an N.B.H.L. executive meeting April 12, it was announced McGlashen would receive the Dr. McCauley Memorial Trophy. The trophy, which carries with it an inscribed watch, gift of the N.B.H.L., is for the league's most valuable player.

Ab Conick, centreman, and Dillon Brady, winger, both of Frood, were named for other awards at the same meeting. Conick received the Steve Conick Memorial Trophy as the league's cleanest player. Brady was the first winner of the W. E. Mason watch, a new award for the leading scorer, which

will be made each year.

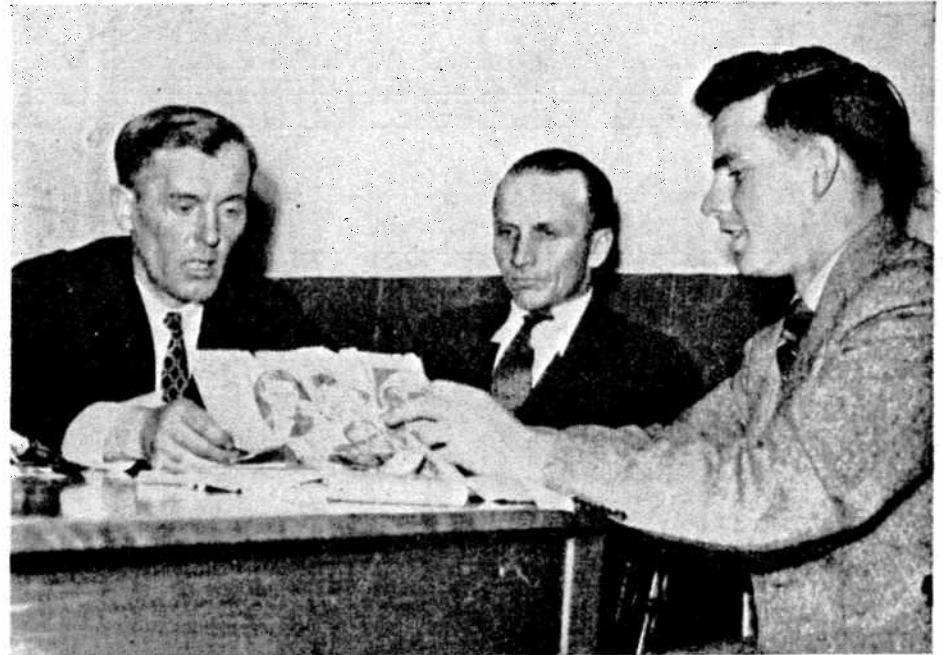
McGlashen's nomination was popular at the meeting. The veteran player, a member of the Allan Cup-winning Halifax Wolverines in 1934-35, has been with Creighton since 1935-36. This year he played forward and defence and saw more service than the majority of pucksters.

Conick's selection for the trophy given in memory of his brother, the late Steve Conick, was made over two other contenders. Reg. Shields, Creighton, had only one penalty and Reg. Chipman, Copper Cliff, had none, while Conick had three minors. However, it was felt Conick's position at centre made his penalty record more valuable than the others.

There was no question about Brady's selection. His 21 points in regular scheduled play was one up on "Nick" Nicholson, Creighton pivot.

Presentation of the awards was made at an N.B.H.L. banquet at Memorial Community Hall on April 19.

Big Names in Sport at Levack



Levack may not be the largest of the INCO plants, but it carries at least three of Canadian sport's distinguished names on its rolls. This trio of Lauri Tulkku, Dave Komonen and "Pat" Patterson have all reached the top in their favorite branches of sport. Tulkku (left) is a noted Canadian ski champion. Komonen (centre) needs little introduction; formerly of Frood, he won the Boston Marathon in 1933 and has placed among the leaders in this gruelling event on subsequent occasions. Patterson, of Toronto, is an oarsman of note and was a member of the famous Argonaut eight that won the North American championship when they were conceded little chance against United States crews. Triangle's camera snapped them in one of the Levack hotels, looking through one another's press clippings.

Fish Fortunes Were Lost at Sea

Not long ago a tuna clipper wallowed helplessly 2,500 miles out in the Pacific from San Diego. The corrosive action of the salt water had so weakened her steel shaft that it fractured from corrosion fatigue. Her holds held a catch of prime tuna worth \$30,000 in her home port. By the time rescuers arrived the catch was thoroughly spoiled.

Because such occurrences are not uncommon, operators of 21 of the largest West Coast tuna clippers are now using Monel shafts. Forged at Huntington, W. Va., these are the largest propeller shafts ever made of

a corrosion-resistant material. Twenty-one feet long and 7½ inches in diameter they weigh 1¾ tons each.

Since Monel resists corrosion by salt water and is tough and strong it overcomes the hazards of the steel shafts. The 21 clippers not only are protected from delays, due to broken shafts, in returning to port with their catch, but also to lay-overs for repairs. The fisherman who lost the \$30,000 cargo was towed to a remote settlement on the Gulf of California and compelled to wait until a new shaft and propeller could be flown down by plane and then installed while she was beached.

Out of a one pound lump of platinum, nearly 5,000 miles of wire can be spun so fine that it will float in the air.



“Hey, Turn It On!”

An action shot taken during a hectic goal-mouth scramble in a match between the Port Colborne Refinery entry in the Intermediate O.H.A. and Smithville. “Jiggs” Concessi, Port Colborne star, seems to have reached some sort of a misunderstanding with the goal umpire, as hockey players occasionally do. He’s signalling with his stick for that red light, and apparently it isn’t burning very brightly.

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League Finalists

Six teams competed in Froid Welfare Association’s inter-level hockey race last winter, and the Regan-Anderson lineup from 2950 level emerged triumphant after a hard-fought playoff series against the McNaughton-Kilby Supplies aggregation. Following the final match the boys repaired to a delicious chicken-spaghetti dinner. Following the repast, at which second and even third helpings were noticed, presentation of the F. J. Eager Trophy was made by Eldred Dickie on behalf of the donor, who was unable to attend. Coach Bob Anderson of the 2950’s, acknowledged the tribute to his team’s prowess and spoke highly of the sportsmanship and ability of the runners-up. To this Jim Kilby of the Supplies crew made brief but suitable reply. Then the boys crowded together for a group photo, Messrs. Dickie Anderson and Kilby standing with the Eager Cup at right centre.

Bill Regan, who has travelled the hockey trail from amateur competition as a boy right up to the top of the professional ranks and then back to the amateur fold again, was just as tickled to see his team win the Eager Cup as he was the day several years ago when he signed his first pro contract. Here he is (left), with the high-scoring player of the championship series, Cam Lake (who seems to have had a lion’s share of the chicken and spaghetti spoils), and Clarence Burnside (right) of the Surface team.

Combines Win Hockey Laurels

Tying 2-2 after winning 1-0 in the total-goals opener, Combines lifted Refinery shift hockey silverware from Shops. Unable to take the measure of Shops all season, Combines came through when the checks were down to win the Charles H. Aldrich Cup. The donor of the cup, now at Cartaret, N.J., but formerly at Refinery, saw the windup. He was in the Nickel Belt on a semi-annual visit.

In the final game Hargraves and R. Picard counted for Combines, and Desilets and R. Currie scored for Shops.

Shops—Baird; Watts, Hart; R. Currie; H. Currie, Desilets; Hunter, Price, Boluk Ramsay.

Combines—Aurie; Shamley, Thompson; Picard; Hargraves, Chomyshyn; Godin, Pete Nazar, Thornton, Moran.

Referees—Burlingham and Sheridan.

LONG WAY HOME

Port Colborne: It was a long 170 miles back home for the INCO intermediate “A” hockey finalists and the few supporters who made the journey to Owen Sound. The team are to be congratulated on their showing in their first year in the intermediate “A” series, and we are hopeful of the John-Ross Robertson Cup resting on the Recreation Lounge trophy table next year. Coach and Defence Player Walter Horne is to be highly commended for his team’s efforts. INCOS were defeated three games to two against Collingwood.

Honor Veterans

Thirteen former members of Copper Cliff mechanical department, now retired on INCO pension, were honored at a ceremony in Memorial Community Hall. On behalf of present members of the "shops" force, Smelter Master Mechanic J. W. Garrow presented each of the veterans with a mantle clock and extended sincere wishes for many happy years of retirement. General Superintendent R. D. Parker, in congratulating the guests of honor on their fine record of service with the Company, expressed the hope that younger members of the department would live up to the high standard of workmanship that had been set for them. The honored guests, whose INCO service totalled more than 400 years, were: J. Marcotte, locomotive engineer, 35 years; Charles Boyle, locomotive engineer, 43 years; Jim Henry, locomotive engineer, 28 years; Thomas Camidge, locomotive engineer, 33 years; Sid Simons, fitter, 27 years; Arthur Walmesley, locomotive and stationary engineer, 35 years; Alf Mossey, carpenter, 32 years; Bill Martin, locomotive engineer, 33 years; Jack Hamilton, carpenter, 15 years; Archie Guthrie, stationary engineer, 28 years; Charles Ade, locomotive engineer, since 1892, the member present with the record of the earliest start with the company; and Charles Draper, locomotive engineer, 25 years.

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Prize Protegés

Coniston this season can congratulate itself not only on the splendid program it carried out during the winter for its budding hockey players, but also on the way the lads came through in the race for honors. In both the midget and juvenile hockey divisions Coniston teams copped the Nickel Belt championships, and their juniors made a great bid in their class before being eliminated.

2 Coniston juveniles are proud possessors of the Rothschild Cup, which they won by defeating Frood in a semi-final and Sudbury Lions in the showdown. Lions eliminated Copper Cliff. The players, left to right: Back row—S. Jeffrey, P. Poirier, G. Baggio, A. Lemieux, L. Legris, coach; F. Benoit, E. Williams, C. Chabot; front row—O. Toniola, G. Duhaime, G. Blake, A. Barbe, E. Oliver, J. Barnoski, D. Forestell, A. Spencer. Lemieux, Williams and Blake have been drafted by the Sudbury team which is in the finals of the Ontario Juvenile Hockey Association, another league.

3 For the midgets it was a repeat victory, the Coniston lineup retaining the Frood Welfare Association trophy they first won last year. Left to right the team is: Back row—H. Bray, V. Zaroski, T. Forestell, F. Toniola, L. Fraser, coach; W. Poirier, D. Kirwan, R. Desautels, A. Barbe; front row—R. Bolay, C. Gobbo, M. Liberale, P. Slywchuk, R. Gosselin, L. Poirier, G. Stalker, M. Laforge. Coniston defeated Sudbury Rotary before taking on Falcons.

Grosso Signs For Heavy Sugar

Finally succumbing to professional wiles after putting in another season as one of the standouts of Canadian amateur hockey, Don Grosso late last month lined up with Detroit Red Wings.

Fourth of the Frood Tiger Allan Cup lineup to step into the big time, Grosso made his debut spectacularly by collecting a goal and an assist in his first game against Chicago Black Hawks. His former teammates, Mel Hill of Boston Bruins, and "Murph" Chamberlain and "Bingo" Kampman of Toronto Maple Leafs, are also now top-flight names in the monied ranks.



Employees Club Reviews Big Year

Celebrating its first anniversary March 17, INCO Employees Club could look back on a year of widely varied activity, keen competition, and much success in its mission of making INCOites happier and better acquainted with one another.

Even these few photos, taken at random the evening of the anniversary dance, show the tenor of the party. It was gay, colorful, and full of pep—a fitting climax to the twelve months of operation it celebrated. For the ladies there were corsage bouquets; for the men there were souvenir Monel ashtrays, stamped with the Club crest and the date. The music left little to be desired, with Paul Koster and his melody men rising to the special occasion with their customary smooth renditions. The floor was slick, the lunch was tasty, and the big birthday cake which Harry Costello fashioned for the event provided a neat decoration. Chairman J. W. Gemmell of the Board of Directors posed (lower left) before the cardboard delicacy with three charming young ladies from among the guests, Miss Dorothy Lefebvre of Sudbury, Miss Eva McKinnirey of New York, and Miss Marion Hughes of Sudbury. More than 400 couples attended, and everyone voted the night a huge success.

Some idea of the use to which Employees Club facilities were put during the past year can be gathered from the following individual counts in each Club department during the month of February alone: bowling, 12,528; billiards, 3,451; badminton, 1,740; dances, 450; at the 27 teas and luncheons, 540; ladies' gym classes, 336; boys' and girls' gym classes, 664; ladies' sewing classes, 234; basketball, 260; at the two bridge parties, 148.

Inter-plant and inter-department competition in both bowling and basketball drew real impetus from the Club schedules. The four fine badminton courts were kept busy throughout the season, and, as a finale, were the scene of the first annual Northern Ontario championships, to which came entries from the Sault, Schumacher, Cochrane, North Bay, and intermediate points. The innovation of guest cards, so members could invite their friends to share in Club social events, proved very popular. High class floor shows, brought from Toronto for feature dances of the season, gave "the tops" in entertainment. The Club Directors added considerable equipment as the demand for it arose, and were in a position to offer even better facilities to the members when INCO finished two large new rooms in the basement of the building.

Plans for fall and winter activities in 1939-40 are already being formulated, and an even bigger and better season is anticipated. In the meantime the Club expects that members will continue to make full use of the Club facilities throughout the summer as they did last year.

SET BOWLING MARK

Port Colborne: The office team playing in the "Dwor 5-Pin Bowling Trophy" made a record for three games by scoring 3,409 points, but the team of Bill Irvine, Roy Howard, Albert Hicks, Jr., E. C. Lambert and Ward Davison boosted that figure one more point to 3,410 in the plant league game. Three thousand, four hundred and ten now stands unless J. C. S. Wilson, Wilfred Thompson, Allan Prittie, Pete Bertoni and Gamey Thompson get started in earnest to boost the mark.

An alloy of 98 per cent. nickel is being used for the metal cutting instruments which stamp out cookies, ginger snaps and tea biscuits in mass production.



Lake Ramsay Fleets Growing

When neighbors noticed smoke curling from a shed at the rear of the Algoma Club in Copper Cliff they promptly sent in a fire alarm. The hook and ladder boys arrived in jig time and the chief yanked open the shed door and peered inside. There sat Nate Crawford. "Where's the fire?" said Nate. He was perched beside a long wooden box from which billowed clouds of steam, and inside the box were ribs he was bending for the boat he and Ed McGill are building. Photo shows them earnestly at work, Crawford on the right. Their craft will be a centreboard sloop, 17 feet overall, with a six-foot beam, 196 square feet of canvas, Marconi rig, mainsail, jib and Genoa. New hands at boat building, they have devoted most of the winter's spare hours to the job, which will join the Lake Ramsay fleet. Their working hours have been enlivened with many a cagey argument as to which will be admiral, which will be deck-hand. So far it seems to be a draw.

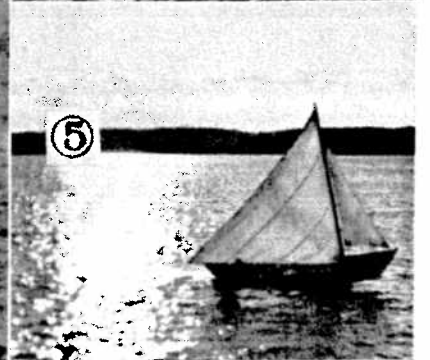
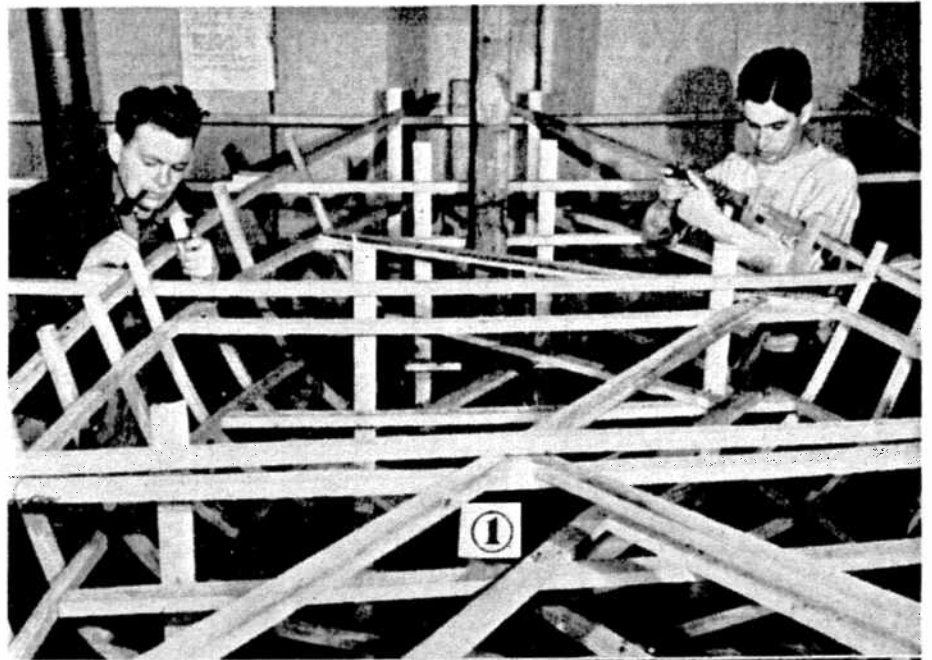
Also a-building in Copper Cliff shipyards is a new craft of the Snipe class, and also new to the intricacies of this absorbing hobby are its creators, Ginny Bertulli (left) and Shiner Correlli. Difficulty in securing raw materials, some labor trouble, and sheer inexperience delayed the contract somewhat at the start, but it's coming along apace now. When completed it will unfurl its canvas to the Lake Ramsay breezes and look like the "Yo Ho," Norm Hawke's trim little Snipe which is already a familiar sight to sailing enthusiasts of the district.

Perhaps not so fast over the waves, nor so sporty in lines, but nevertheless a staunch friend in a rough sea is this good old Nova Scotia fishing dory which plies Lake Penage between the mainland and the Ferguson island with a regular week-end supercargo of Stackhouse, Forsythe, and Ferguson, partners in a summer home almost completed last year. The boat bears the name "The Shrimp," but looks as romantic as the best of them against a setting sun.

INCO Players Among Winners

Port Colborne: In holding the last two days' play of the Niagara District intermediate tournament at the Inco Club this year, badminton took a step forward. Players from the whole peninsula competed and were pleased with the generous treatment received from those responsible for making this possible. Here, again, INCO went out in front. In all final events INCO Club was well represented. The men's doubles was a possible all-INCO final. J. Anderson teamed with G. Winger to defeat G. Coles, of Welland, and A. Saville, of INCO Club in a three-game final. In the men's singles F. Bradley, the defending champion, met his team-mate, A. Saville, and went down to defeat.

The mixed doubles winners, Mrs. Mooney and H. Long, of Niagara Falls, met P. Nixon and A. Saville, of INCO. The winners, Mooney and Long, played a strong combination game and their teamwork proved too much for the INCO pair, but were forced into a three-game match before being declared district champions. We might mention in the men's singles consolation J. Griffin, playing in his first district tournament, turned in a sensational game and was finally sent to the showers in a close third-game match that went to points.





The New Lucerne

1 Ski clubs of the district will join forces to develop the hills and woodland trails around Levack, it was decided at their annual meeting and banquet last month. The "Lucerne of Northern Ontario" will be a ski mecca for the whole province if ski-minded visionaries carry out the plans which have been enthusiastically set for the next three or four years. Some idea of the ideal skiing opportunities offered on the Levack hills can be gathered from this picture. In the foreground, toiling up the slippery slope, is Jack Cole, of Copper Cliff. The annual banquet heard the 1940 aspirations of various clubs: At Copper Cliff, said Mac Forsythe, more work will be done on the district's only jump; Creighton's ski clubhouse will be moved from O'Donnell to within a mile of Creighton, and more trails will be cut, according to Bob Brown; Coniston, it was reported by Carl Nesbitt, hopes to have its own chalet next season; Sudbury aims at clubhouse expansion and a jump.

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Aces Hard to Beat

2 Smelter Aces wear Copper Cliff shift hockey laurels this year as a result of their victory over Cunicons in a best-of-three series. No third game was necessary, for Aces took the first match 3-2 and, once out in front in the second set-to, made a parade of it to finish with a 9-3 triumph. The series wound up a highly-successful league which produced some scintillating hockey. Personnel of the winning club, as shown in the photo: Front row, left to right, B. Montgomery, s. goal; L. Kidd, left wing; D. Gathercole, centre; R. Matte, mascot; E. Panke, right wing; G. Zulianl, centre; M. Albright, goal; back row, A. Mitchell, manager; G. Alcott, coach; J. Closs, president; F. R. Matte, sponsor; B. Reid, defence; H. Mahoney, right wing; D. Dickie, left wing; B. Thornton, defence; A. Devens, defence; H. Murray, defence; F. Wolfe, sponsor; C. Rivers, treasurer.

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Winning Skips

3 Two things can make a big season for a curling club: a healthy increase in membership and the successful conclusion of every event on the program. Not one but both marked the closing season for Copper Cliff Curling Club, and members regretfully watch their ice slowly succumbing to the wiles of capricious Miss April. It was a bonnie year all around, and an enthusiastic turnout attended the closing function April 8 at which prizes were presented, suggestions were advanced for next year, and new officers were installed. A very popular feature was a presentation to E. A. Collins of a silver humidior shaped like a curling stone and inscribed "Copper Cliff's Ace Curler," a reputation which the recipient firmly vowed to uphold next season. Photo shows the winning skips, left to right: J. Hudson (British Consols), J. J. Morrison (Inter-Rink), K. V. Lindell (Collins Cup), President D. Finlayson, Harold Hudson (Waterbury Cup), W. T. Waterbury (Single Rink). The skip of the winning rink in the Colts Bonspiel, J. O. Walberg, was not present. Executive installed for next season was: President, W. Henderson; vice-president, A. McIntyre; secretary, T. H. Rowe; assistant secretary, J. Hazleden; committee, K. Madill, J. Hudson, K. S. Clarke, W. T. Waterbury, G. Ferguson.

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Hold New Trophy

4 "Toronto Maple Leafs," of the Copper Cliff Midget National Hockey League, became first holders of the coveted Stanley Cup, donated by INCO President Robert C. Stanley, when they defeated "Boston Bruins" in the championship play-

offs, "Boston" took the first match 3-2 when "Eddie" Shore Digby whipped home the winning goal with only 40 seconds to go, but "Leafs" fought back in the second and third tussles and emerged conquerors. Here they pose in true big-league style. Captain Pat Rogers (Drillon) holds the trophy, and at the right is Evan Jones, the league's business manager. The players are: Herk Flynn (Broda), Lefty Barnes (Fowler), Earl Williams (Hamilton), Stu Johnson (Metz), Bill Zahavich (Horner), John Williams (Marker), Rudy Gatien (Apps), Ken Glynn (Chamberlain), Rex Leclair (Jackson), Bobby McGee (mascot), Fred Gilpin (Dick Irvin); absent, Emil Paquette (Kampman).

Ontario Champs

1 The smart INCO Club basketball team which copped Ontario championship honors by trimming Windsor in a two-game series in Sudbury. More details of their triumph will be found on Page 13. Photo shows the team lined up for a chalk talk from their coach, Eddie Wolfe. Back row, left to right, L. Edwards, centre; J. Lilley, sub; W. Hart, sub; H. Swan, left guard; J. Kayser, sub; front row, W. Dydyk, sub; J. Waznow, right guard; J. Eby, forward; B. King, sub; N. Leore, sub; absent when photo taken, Dr. R. M. Mitchell, right forward. Inset, Fred Sheridan, manager.

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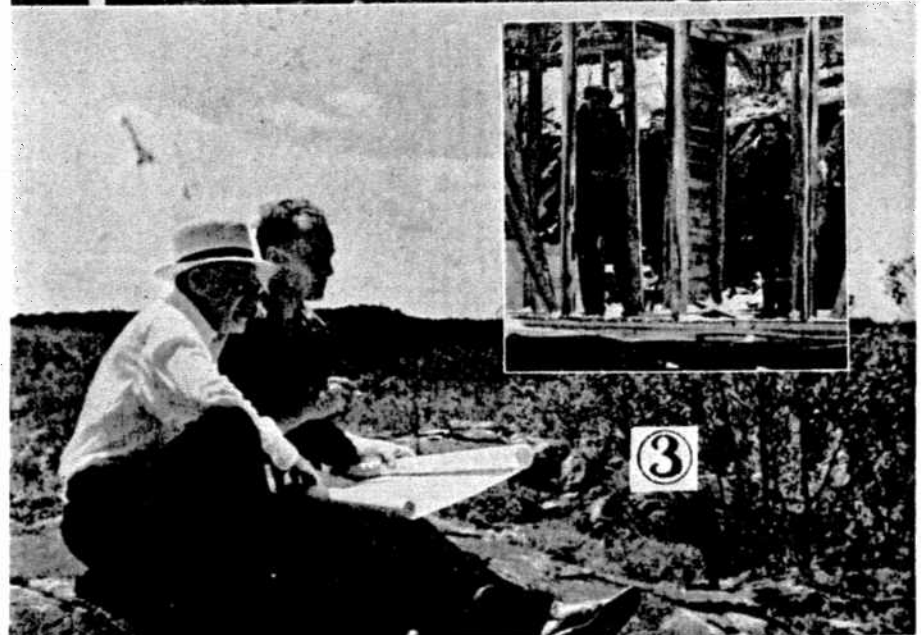
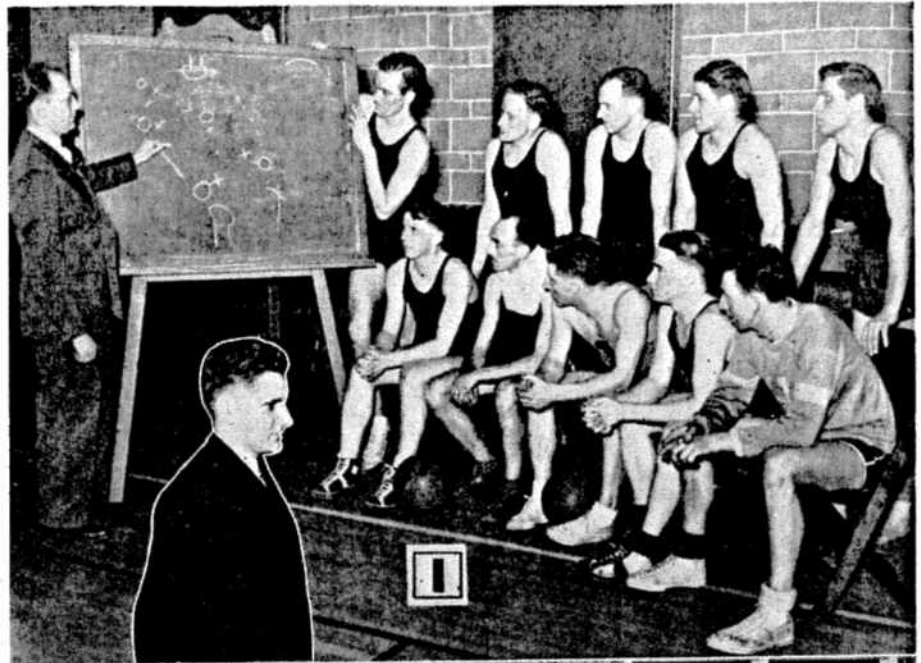
Safety Huddle

Seldom do the safety engineers of the various INCO plants get an opportunity to gather for a huddle on accident frequencies, standard practices, First Aid classes, and other features of their work. The night of the inter-plant First Aid competition for the Parker Shield found them all at INCO Employees Club, however, and the camera was ready for them. Left to right: L. Walkom, Lecack; L. Roy, ORCO; C. Wilson, assistant to the General Safety Engineer at Copper Cliff; G. S. Jarrett, General Safety Engineer; J. McAndrew, Froid; M. Kostash, Copper Cliff; "Ig" Nelson, Creighton. That was a smile of satisfaction they had on their faces, too, for 1939's accident frequencies are away to a grand improvement over the record-breaking marks established in 1938 for the Mining and Smelting Division. January of 1939 showed .054 accidents per 100,000 shifts worked as compared with .062 for January of 1938; February this year had .054 against .115 last year; March had .069 against .075 in 1938. The manner in which INCOites as a whole are co-operating to banish the accident bogey is a source of pride to everyone in the entire organization. President Robert C. Stanley's keen interest in it was evident in the remarks he made in this connection in his recent report to the shareholders of the Company.

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Now's the Time!

The keen enthusiasm among skiers at the present time for big district development next winter, and also the perfectly human tendency to let ambition lag during the summer months, makes timely this picture from Kel Sproule's album. Taken in the heat of last summer (Baby Ikonta, Eastman Panatomic, 100th at f.5.6, noon) it shows two of Copper Cliff ski club's inveterate boosters out planning their chalet long before there was a hint or even thought of snow. Lange Winckler and Bruce Allen, the latter the club president, study the terrain and vision the structure which was later erected by volunteer labor and plenty of it. Inset shows Doug Stackhouse and Shelagh Taylor helping with the building job in the early winter. Such projects take time, thought, patience, and hard work. Procrastination is a sly thief of these things.



Frood Miners Loading a Round

To the average citizen explosives mean destruction, but for the miner they represent a means of livelihood. Explosives, and blasting accessories, are commonplace commodities in the mining industry. But, like steam, electricity, and other great forces harnessed by man, they must be handled with care and caution because of their tremendous power.

Strict rules govern the manufacture, transportation, distribution and use of explosives, and the record in Ontario mines over the past 11 years speaks well for the way these rules have been obeyed for, on the average, only one explosive accident has occurred in each 200,000 shifts worked. As a rule it is extremely difficult to determine definitely the cause of an explosive accident, but it may safely be said that the best method of further decreasing this accident experience is by a thorough knowledge of the rules and strict adherence to them under all circumstances.

Triangle's readers will be interested in following, through the camera's eyes, the loading of a typical blasting round in a development heading at Frood.

1 Before commencing drilling the holes which will later be loaded with dynamite, Pete Prpich is carefully washing down and inspecting the face. This is done to be sure there is no "bootleg" hole left from a previous blast which may contain small quantities of explosive. A "bootleg" hole is simply the bottom portion of a hole which failed to break right to the bottom. If it contains explosives it is dangerous, as the impact of a drill striking it would probably detonate it. Such a hole would have to be reblasted at once.

2 Here John Yurka has his drill set up and is drilling the round of holes. These holes are drilled in such a manner that the first series of holes fired, known as the "cut-holes," will break out rock from the solid face, and the balance of the holes will "square-up" the round. The "cut-holes" are loaded very heavily, as they must tear out rock or ore right from the solid and leave an opening to which the other holes may break.

3 After the round has been drilled and the holes cleaned out, loading of the explosives commences. In order that the explosives' charges may be well tamped, or packed, into the holes, the sticks of dynamite are carefully slit, and in this picture the camera has caught Pete and John at the task.

4 The first cartridge of Polar Forcite Gelatin 40 per cent. (the explosive used at Frood) is carefully pushed back into the bottom of the hole and firmly tamped into place by Pete.

5 Modern high explosives do not explode of their own accord, but are detonated by a small device known as a blasting cap. These caps consist of small aluminum cylinders closed at one end and loaded with a charge of very sensitive and violent explosive, and in turn are detonated by the "spit" of safety fuse. Safety fuse consists of a train of black powder tightly wrapped and enclosed in various layers of textiles and waterproofing materials. The purpose of safety fuse is to carry fire at a continuous and uniform rate to the blasting cap, thereby enabling the miners to light the round and have ample time to retire to a place of safety before the blast takes place. In this picture, Pete is carefully inserting the blasting cap, with fuse attached, into the "primer" stick of explosive. You will note that this cartridge is never slit and the miner takes care to ensure that the cap is placed directly in the centre of the stick as, should the cap become dislodged, it



may explode prematurely through contact with the side of the bore holes, or an incomplete detonation of the dynamite may take place.

6 Too much care cannot be taken when loading the "primer" cartridge which contains the blasting caps, and John is cautiously pushing this cartridge into place and is making sure that the blasting cap and fuse are not being pulled away from the cartridge of explosives.

7 After the balance of the explosives has been loaded in the hole, clay "tamping" or "stemming," wrapped in paper, is packed tightly on top of the dynamite charge. This "stemming" material is used to confine the explosives in the bore hole and thereby increase the efficiency of the explosive, as well as being another aid to safety.

8 As previously explained, it is necessary that the "cut-holes" detonate first and that the "square-up" holes fire in the proper rotation. This end is obtained by trimming the safety fuse to the desired length. All safety fuse for development work at Frood is issued in 10-foot lengths, with the blasting cap attached. Safety regulations clearly state that no fuse may be cut more than once, and the longest amount to be cut from one piece of fuse must not exceed three feet. The ends of all fuses are dipped in an identification paint to enable the miner to check whether or not he has already cut the fuse. In this picture, John Yurka is cutting a small length from one of the fuses in a "square-up" hole.

9 The complete face loaded and ready for the miners to light the round. The arrangement of holes in this face represents a "burn-cut" round, and the "cut" itself can be clearly seen in lower centre. In this case, five holes are drilled close together and the centre hole only is loaded with explosives. When this hole is blasted it breaks to the other four holes surrounding it. The "square-up" holes then break in rotation to the opening provided by the "burn-cut." As safety fuse burns at a uniform rate of speed, it is noticed that the "cut-hole" which must fire first has the smallest length of fuse extending from the hole, and the other fuses are correspondingly longer, depending upon the firing rotation desired by the miners.

Loop Laurels Won for INCO

Those boosters whose enthusiasm was responsible for the launching of an inter-plant loop league at INCO Employees Club the past winter saw their judgment completely vindicated when an all-star Club team won the Ontario Intermediate "B" basketball championship in a two-game final series against Windsor Jitterbugs April 14 and 15 in Sudbury.

Seven points down after the first game, which they dropped 23-30, the INCO's came back with a wildly exciting finish in the second set-to and won out by one point on total scores for the series. They had previously won a Nickel Belt playdown series, then eliminated North Bay and Schumacher.

REPRESENT SIX PLANTS

From six of the seven INCO plants and, prior to that, from widely separated University teams, was gathered the material which formed the championship INCO squad, whose photograph appears on Page 11. Of the fast-stepping, high-scoring Mitchell-Eby-Edwards line, Dr. R. M. Mitchell was staging a comeback after 10 years away from the game, but few would have guessed it, so slickly did he perform. He mixed championship basketball with his track and lacrosse when he was one of the outstanding athletes at the

University of Toronto. Joe Eby of Garson was a Queen's University standout, as was Edwards of Frood, who hails from Regina and the University of Saskatchewan. Wes "Pappy" Hart, otherwise known as a rugged defenceman in hockey, is now at ORCO but came from Winnipeg. Walter Dydyk of Creighton is another export of the Manitoba capital, where high class basketball has been played for years.

SEVERAL WESTERNERS

Jack Lilley of Coniston was born in St. John, N.B., but played his basketball at the University of Toronto. Bruce King of Creighton was born in the sugar-beet country at Raymond, Alta., and played a sweet game at forward for the University of Alberta and for the Junior College at the University of Utah. Another University of Alberta product is John Waznow of Creighton, born in the Ukraine. Youngest member of the team, and unfortunately prevented by flu from taking part in the championship finals, Jack Kayser of Copper Cliff was born in New York, played at Yale. Herb Swan of Creighton is another Toronto product, and played at Bloor Collegiate and West End "Y". Ned Leore, crack Frood forward who led the inter-plant league in scoring, is ex-Ottawa.

Employees Club members join in hearty congratulations to the team which has made such a brilliant showing in the first year basketball has been organized in the Nickel Belt for many a moon.

Box scores of the two games with Windsor:

FRIDAY GAME				
Windsor	FG.	FT.	PF.	T'l.
J. Cipparone, rf	3	1	0	7
J. Abrams, lf	0	0	2	0
S. Woschenski, c	1	1	2	3
J. Zerbin, lg	4	0	2	8
P. Pidruzny, rg	5	2	4	12
M. Rudnikoff, sub	0	0	0	0
Totals	13	4	10	30
Sudbury	FG.	FT.	PF.	T'l.
M. Mitchell, rf	1	2	2	4
J. Eby, lf	3	0	3	6
L. Edwards, c	2	2	2	6
H. Swan, lg	0	1	1	1
J. Wozno, rg	2	0	0	4
B. King, sub	0	0	1	0
W. Dydyk, sub	0	0	1	0
W. Hart, sub	0	0	2	0
J. Lilley, sub	1	0	1	2
Totals	9	5	13	23

SATURDAY GAME				
Windsor	FG.	FT.	PF.	T'l.
J. Cipparone, rf	1	3	3	5
J. Abrams, lf	1	0	2	2
S. Woschenski, c	2	2	2	6
J. Zerbin, lg	0	1	0	1
P. Pidruzny, rg	2	1	3	5
M. Rudnikoff, sub	2	1	1	5
Totals	8	8	11	24
Sudbury	FG.	FT.	PF.	T'l.
M. Mitchell, rf	2	1	3	5
J. Eby, lf	2	1	1	5
L. Edwards, c	6	0	0	12
H. Swan, lg	0	2	3	2
J. Wozno, rg	1	0	3	2
B. King, sub	1	0	0	2
W. Dydyk, sub	0	0	0	0
W. Hart, sub	2	0	3	4
J. Lilley, sub	0	0	1	0
Totals	14	4	14	32

15,000 BULBS

The travelling electric news sign in New York's Times Square consists of monel letters placed on a continuous chain which encircles the Times Building, thus giving an illusion of moving letters. By means of 39,000 brush contacts, the lights around the building flash up as the belt brings each letter around to its particular brush. Nearly 15,000 light bulbs set in monel sockets are used for the mechanism.

At Port Colborne



Thomas Lee (upper), employee at INCO's Port Colborne Refinery, saw a dream boat come home in the last running of the Grand National Steeplechase. He held a ticket on McMoffat, the horse that ran second, and collected \$75,000. He was promptly besieged with offers and suggestions as to how to invest his sudden wealth. He has been in INCO employ since 1922, is married, and has two children. His fellow employees throughout the Company, albeit consumed with envy (and we're certainly no exception) heartily congratulate him on his good fortune.

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Already the fishermen are thinking of shady pools and deep cold lakes, but Lee Cuff (lower), of Port Colborne Refinery, had his fish menu regularly throughout the winter, and the sport that goes with it, too. Here he's shown with a catch of pike he hauled through the ice of Lake Erie.



Second Year Entry Parker Shield Winners

A new champion of INCO inter-plant First Aid competition emerged at the Employees Club in Sudbury on April 3rd. Although it was only the second time their division had been entered in the event, Ontario Refining Company's crack splint-and-bandage brigade that night won the coveted R. D. Parker Shield from a strong field of seven teams.

Last year, making their maiden attempt, the ORCO First Aiders served notice as a real threat for 1939 by finishing in second place only two points behind the winners, Coniston. Equal to their challenge, they came off the floor triumphant this time after a brilliant display of St. John Ambulance technique and accurate response to the oral quiz which was also part of the test.

SMELTER WAS SECOND

In second place came Copper Cliff Smelter, winners in 1937. Apparently the difference between Copper Cliff and ORCO was about the size of a gnat's whisker because the judge of the contest, Dr. R. B. Robinson, admitted he had great difficulty in deciding between the two teams. The other five lineups in the contest were Froot, Creighton, Coniston, Garson and Levack.

The system of conducting the contest was the same as that of last year. A team entering the hall was handed a copy of the evening's problem and was allowed two minutes in which to study it. The team then hurried to the centre of the hall, where the "patient" lay on the floor awaiting them. By questions put to the judge of the contest the team learned of the patient's condition, and then proceeded to administer First Aid. This completed, the team underwent a further test, being asked to demonstrate the Schaeffer method of artificial respiration. Then each member, in turn, was required to undergo an oral exam of his knowledge of the St. John Ambulance handbook.

This was the problem of the evening: While painting the outside of a building, the painter falls from the ladder. Your First Aid team, who are practicing nearby with your First Aid kit, see the accident and rush over. Man is lying on the ground, conscious and groaning with left leg half bent, and from the knee down the clothes are soaked in blood. Weather fine, temperature 70 degrees, telephone within 50 feet; location, outside "dry" in smelter yard, Copper Cliff.

MAKING DIAGNOSIS

Alert to the possibilities of the accident, the captain of the team soon learned from the judge's answers to his queries that the victim had an arterial hemorrhage at the fracture site in the left lower leg, at which there was also a compound fracture with protrusion through the skin of the upper end of the broken bone. The patient was also suffering from resulting shock as shown by pale face, clammy skin, rapid pulse, and shallow breathing. Then the team went ahead with its treatment.

Announcing the results to an intent audience, after a few moments of tabulating the scores and adding in the reports from Dr. R. M. Mitchell on the oral examinations of each team, Dr. Robinson first paid tribute to the splendid showing of the entries from the smaller plants. "Considering the scarcity of competition and consequent lack of competitive practice available to the teams from the smaller plants," he said, "their performances were of a very high calibre."

"The interest shown by the teams," Dr. Robinson has since told The Triangle, "has been a stimulus not only to First Aid as a whole but also to the doctors who have

themselves benefitted by their contact with the work.

"The problem this year embraced four of the great emergencies: Haemorrhage, fractures, shock and artificial respiration. As those who are familiar with the latest edition of the St. John Ambulance handbook know, the procedures in the treatment of these emergencies are definitely laid down. However, the judgment of team captain in arriving quickly at an accurate diagnosis, and full utilization by the team of the facilities at hand, are of prime importance. Further, the manner in which the captain directs his men, and their ability to follow his instructions, make or mar the showing of the team.

HIGH STANDARD OF WORK

"The standard of First Aid work in INCO is noticeably improving yearly, and has reached the point where the judging of a contest such as that of this year presents an extremely difficult task.

"One's main objective is to see that the procedures are carried out as prescribed in the official handbook, but, when the contest is as close as it was this year, features of a team's performance which might otherwise be of minor importance become influential factors in deciding the award.

"The team from the Refinery this year was almost letter-perfect in the treatment of the accident victim, their artificial respiration, and their book work. Nevertheless they were very closely pressed by the excellent display of the Smelter team, who are also to be very highly commended for their splendid conduct.

"It must be remembered that the contest is for the picked teams from all the Company plants, and that there are many more men, apart from those in action in the actual competition, who are equally capable of handling accident cases. They in turn undoubtedly help to make their friends in the General Public conscious of First Aid, thus doing great benefit to the community at large. And it is in this, I think, that we come to the great value of First Aid contests—the spreading of the gospel far and wide may some day save a life or a limb in a home or street a long way removed from our own work where, for the sake of our competitions, we always presume the test accident has taken place.

"Undoubtedly the fact that the two top teams in this year's event were chosen from groups in which inter-department competition is keen and highly developed, will stimulate other plants to similar organization so that, even by next year, Garson or Levack may take home the Parker Shield.

"In conclusion I wish to thank Dr. Mowat, Surgeon-in-Chief, for appointing me to the most enjoyable if difficult post as judge of the contest, and Dr. Harris, past master of First Aid in this district, for his kindly advice and assistance. To Dr. Mitchell we owe our thanks for the eminently capable manner in which he conducted the oral examinations."

In the accompanying layout Triangle presents a photographic record of the 1939 Parker Shield event:

1 In the absence of R. D. Parker, the shield was presented to the Refinery team at the conclusion of the contest by their former chief, F. P. Benard, now assistant to the General Superintendent. Members of the team, taking no pains to conceal their pardonable pride, were, left to right: "Dunc" Forster, "Bart" Hunter, Bill Wickenden, Carl Mattaini, Morgan Shoveller (captain).

2 Gordon Guthrie, captain of the Copper Cliff Smelter team, talks the evening's problem over with his mates before going into action on the floor. With him were Tommy Somers, Gordon Alcott and Wes McNeice.

3 A long line of inter-plant First Aid triumphs stood behind the Coniston entry as it took the floor, but the 1939 quartet failed to click. Members were R. Gustin, captain; E. Alberts, A. Belanger, G. Tessier.

4 "Cramming" in the last few precious hours before a school examination has nothing on the way a First Aid team concentrates on the problem in the two minutes it is allowed. Here's Levack, the first entry to take the floor, "getting the dope": C. Cousins (captain), W. Petersen, P. Penman and F. Church.

5 Garson's representatives put up a fine exhibition. The camera caught them as they prepared the accident victim's leg for splints and bandages. Members of the team: J. R. McCauley (captain), B. Spencer, M. Barber and A. Bowen.

6 Captain "Stevey" Stephenson of the Creighton team always makes the audience at an inter-plant contest sit up and take notice with the brisk manner in which he puts his questions to the judge. He's in the left foreground in the picture, assuring the "patient" that he's okay and that there's some mighty pretty nurses down there at the hospital. Others on the team from Tom Starkey's stamping grounds: Jack Rountree (right foreground), M. Davies and W. Pickering.

7 Coach Bert Debney was watching anxiously from the sidelines when this photo was taken, because the Froot entry was in action. This was the second stage of the contest, the demonstration of the Schaeffer method of artificial respiration, in which the team members had to change over at intervals as they carried on the resuscitating of the patient. Members of the lineup: C. Varney (captain), W. Gaylor, M. Pechkoff and W. Underwood.

8 Veteran First Aid authority, Dr. R. B. Harris chats with the two lads who acted as "patients" during the evening, Ontario Didone and Wilfred Martel. Ontario's left leg was bandaged and splinted for fracture seven times during the evening; Henry's lungs were prodded and encouraged by artificial respiration until he almost forgot how to breathe.

9 Frank Church of the Levack team takes his oral quiz from Dr. R. M. Mitchell, the third stage in the testing of the contest entries. Many First Aiders are whizzes at floor work but fall down on their book exams; others do not do so well in administering treatment to a patient, but can't be caught when it comes to the quiz.

Among the most interested spectators of the contest were a group of Copper Cliff Boy Scouts, on deck to pick up some pointers for a First Aid contest in which they will compete against 10 other Scout troops of the district on May 8. Dr. H. F. Mowat, Surgeon-in-Chief, took them aside (lower right) to explain fundamentals of the work. Left to right, the boys are: Fred Gilpin, Robert Johnston, George Heale, Jack Heale, Ken Shore, Norman Frost and Stanley Simmons.

Insets: Centre, Dr. R. B. Robinson, judge of the contest, with his scoring board, carefully watches a team's procedure; left lower, young Harry Lipscombe, whose dad captained last year's ORCO team, and who is a great First Aid enthusiast, was a close observer from the sidelines.

15,000 CABLE MILES

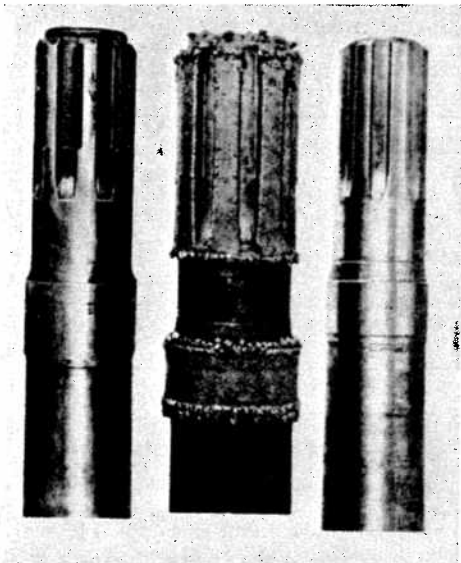
In submarine cables the use of loadings of nickel-iron wire makes it possible to send several messages over the same line simultaneously. Nearly 15,000 miles of such continuously loaded cable now span the Atlantic and Pacific Oceans.

... in plating

Nickel plating is usually thought of as a thin coating of nickel, which is used on metal objects either to improve their appearance or to provide them with a surface which will not rust. These are the common uses of nickel plating, but a new process has recently been developed which is extending its application into important new fields.

The new method is a British process known under the trade name of "Fescollizing." By means of it, heavy nickel deposits are used to build up worn or mismachined metal parts which would otherwise have to be entirely replaced. The method has found particularly wide use in England since it effects economies in the upkeep of expensive industrial machinery. Old machine parts can not only be repaired cheaply in this way but after being repaired by the "Fescollizing" method, often give longer life than even a new part would give.

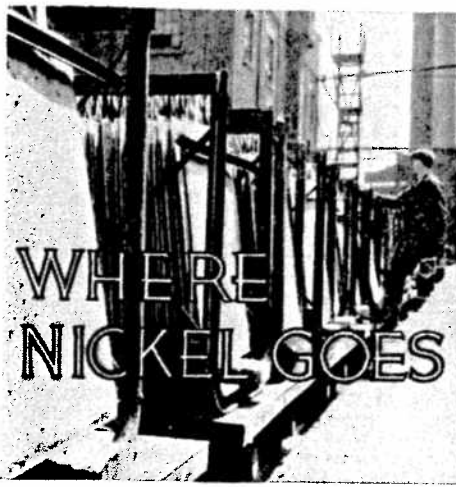
The method proceeds as follows: The part to be salvaged is first thoroughly cleaned in order to remove all traces of oil or grease. Since it is not often that the whole part is



to be built up, it is next dipped into a tank of molten wax which gives it a film over all the surface. The wax is then carefully removed from the section that has worn down, and the exposed area is again thoroughly cleaned. It is claimed that properly cleaned surfaces will make possible a bond between the nickel and the iron or steel, equal to the strength of the metals.

After being cleaned, the part is rinsed and placed in the plating tank while still wet. The plating operation is a cold process conducted in still tanks which will hold machine parts weighing up to two tons, depending, of course, on their shape. The thickness of the plating desired determines the length of time the part must be left in the tank. When the exposed area has acquired the proper deposit of nickel, the part is taken from the tank and the wax film is removed with hot water. The built-up area is then machined or ground to size and shape. Several days are sometimes necessary for completing the process whereas several months are often required for replacing heavy machinery parts.

In the United States, laboratories of the International Nickel Company have developed an even more rapid method of doing the same type of work. Often referred to as the cold casting process, the new method makes it possible to reclaim worn or mismachined parts and also to produce entirely new objects which are mechanically strong and accurate in every detail. In this instance,



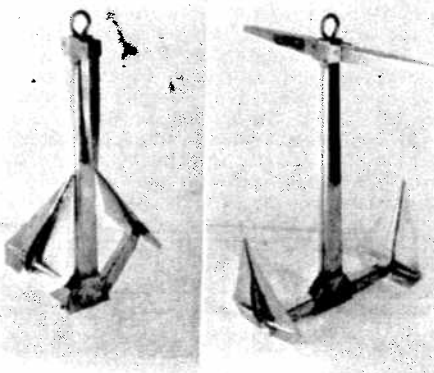
a form is made of some material which can be readily destroyed, once the electrodeposition of nickel on it has reached the desired thickness. One of the solutions developed gives a deposit of relatively high hardness filling in the range between the soft nickel and chromium. The cold casting method is being used by the Bureau of Printing and Engraving in Washington, D.C., for reproducing plates used in printing currency. Reproduction of phonograph master and stamping plates is another use for the process.

... in boating

Anyone who has ever spent much time around boats will probably agree that the business of dropping anchor is apt to turn into a more or less major operation. The average anchor is heavy, large and cumbersome. When amateur crews are aboard, the profanity associated with the heaving of the anchor is usually anything but amateur.

Recently, a lightweight anchor was developed, which makes things easier all the way around and reduces the danger of damage to hull and topsides. Introduced at the recent motor boat show in New York, it is fabricated from high-strength monel sheet. The anchor is made in a variety of sizes from 6 pounds to 47 pounds in weight, and is so designed that the 11-pound size, for example, will hold a boat 38 feet in length. The conventional type of anchor requires one to two pounds in anchor weight for each foot of boat length.

The ingenious design of the anchor, coupled with the inherent strength and cor-



rosion resistance of the monel, makes the comparative lightness possible. The arms are set at right angles to the stock and are equipped with a set of sharply pointed, triangular flukes which stab deeper and deeper as the pull of the craft increases. The angle and the broad base of the flukes are two basic reasons for the anchor's exceptional

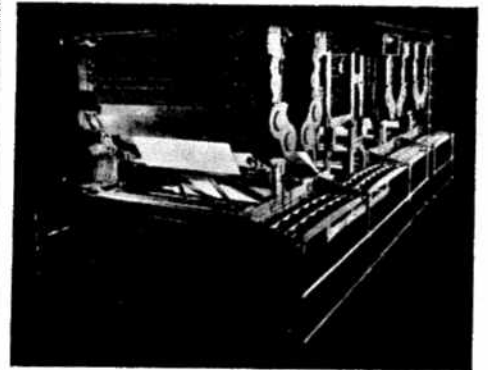
holding power. Only when a direct upward pull is exerted on the line will the unit dig itself out of the bottom. Then the sharp-pointed flukes easily cut their way out.

The construction calls for welding throughout, except where the arms and the stock meet the shank. These joints are pinned so that the anchor can be folded for stowing when not in use, as shown in the photograph above. This feature is also important as storage space on a boat is always limited.

... in printing

It would be quite safe to say that the very words which form this sentence and the following paragraphs, were printed with nickel-faced type. Nickel alloys have become highly valuable for many parts of the complicated machinery that prints newspapers, magazines, books and, in fact, all kinds of printed matter.

One of the most interesting things one can do is to visit the plant of one of the large daily newspapers and watch its giant machines turn out thousands of complete papers with incredible rapidity and efficiency. The machines are extremely complex



mechanisms or series of mechanisms which are combined with ingenious engineering skill to produce a smooth-running, highly-accurate unit.

The combination of speed, precision, power and balance, which is essential to perfect printing operation, requires not only efficient mechanical design but also careful attention to materials of construction. Nickel cast iron is widely used in printing presses for such parts as frames, gears, cams and rollers to provide strength and wearing qualities so necessary under this gruelling service.

The printing press which is shown in the photograph below, has gears cast in a high test alloy containing about 1.50 per cent. nickel and 0.40 per cent. chromium. Cutting cylinders, plate clips, and cams are made of nickel-chromium steel, and bearings of nickel alloy steel are used throughout the machine. Running at 415 to 500 cylinder revolutions per minute, this press can print, fold and deliver 50,000 to 60,000 32-page newspapers per hour.

The nickel alloys are also used for many auxiliary machines required in the modern printing plant. Recently a run of 1,800,000 copies of a colored "comic" section was made from one set of nickel-faced stereotype plates. Nickel type facing is said to be more wear-resistant than other kinds and to resist the chemical action of all varieties of ink, colored or black, on any grade of paper.

Ordinary metal springs "relax," losing much of their spring properties when subjected to temperatures above 400 degrees F. A nickel alloy recently developed retains resistance to "relaxation" at temperatures as high as 600 degrees F. and 700 degrees F.