

INCO TRIANGLE

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Mrs. Perusini's Sudbury-Grown Preserves (STORY ON PAGE 4)



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Inco Mill Products Find Varied Uses

By JAMES F. McNAMARA, Vice-President,
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The products of Inco's Huntington Works in West Virginia, are employed throughout industry in many varied applications, ranging from fish hooks to jet engines. The Works, which is operated by the International Nickel Company, Inc., a United States subsidiary of The International Nickel Company of Canada, Limited, is different from any other rolling mill in the world. It is unique in that its standard production is specialized products — alloys especially prescribed or tailored to meet the user's individual metal problem.

Most of the basic supplies for the operations of the Huntington Works — nickel and nickel-containing raw materials — come from Inco's plants in Canada. These materials are transformed into more than forty Inco Nickel Alloys of different compositions, each with special variations in temper, physical condition and other characteristics totalling more than 400 separate products in 19,000 different sizes. If one of the Works' products can be selected as most typical, the logical choice would be Monel, an alloy of approximately two-thirds nickel and one-third copper, which was the first of the Inco Nickel Alloys. Other products include malleable nickel, Inconel, and various modified forms of nickel alloys.

The pronounced advances made in all fields of industry in the past several years have brought forth an increase in the applications of the Huntington Works' products. This expansion was evident in normal peacetime industry prior to the beginning of the accelerated defense programs, and the demand has increased since the Korean conflict.

The chemical, processing and associated industries, as well as the power and mechanical fields, are among the major consumers of the materials produced by the Huntington Works. New and improved products introduced by these industries are responsible for the enlarged applications of Inco mill products where high strength, resistance to corrosion, heat and wear are required. The ever expanding demands for petroleum products and natural gas and the constant improvements being made in productions, refining processes and equipment, require the use of large tonnages of Inco alloys to resist corrosion by brines, hydrochloric acid and hydrogen sulphide in vapors of moderate temperatures. Similarly high nickel alloys are finding considerable applications in the new phase of the chemical industry that is being based on petroleum compounds and natural gas as the building blocks for the synthesis of a wide range of industrial chemicals, solvents and plastics.

Monel leads all other Huntington mill products in tonnage production and is widely used for all purposes involving resistance to corrosion and wear. Applications of this

alloy vary from motorboat shafting to laundry and chemical equipment.

A new roofing sheet, made of Monel, introduced several years ago, has found a marked increase in applications. It is also used for expansion joints, flashings, louvers, gutters, spandrels, sheathing, and other architectural purposes. Among the well-known buildings employing this material is the United Nations Building in New York City, the Pentagon Building in Washington, D.C., and the Staten Island, N.Y., new Ferry Terminal — which is the newest and largest of its kind in the world. This year, Monel was made available in expanded metal form, used largely for screens where the finer meshes are not required. Other applications include such diversified items as laundry, dishwashing and chemical plant equipment, and for lathing used to anchor insulation materials in steam and other power plants.

The peculiar abilities of nickel, Monel, and other high nickel alloys to withstand the corrosive effects of halogens and halogen compounds — particularly chlorine and fluorine — at elevated temperatures has been a big factor in the noticeable extension that has occurred in the manufacture of new products based on these chemicals. Many of these new synthetic products have unusual chemical and physical properties which can be expected to lead to more extensive use. Large-scale use of nickel and Monel is found in the processing of the chlorinated insecticides and herbicides such as DDT and 2-4D.

Malleable nickel, produced by the Huntington Works, finds a diverse number of uses in the chemical, food processing, elec-

trical and electronic fields. It ranks second to Monel in production. Demands for malleable nickel recently have been particularly heavy in the electronic field where it is used in parts of television, radar, and other electronic equipment.

Inconel, an alloy of approximately 78% nickel, 14% chromium and 6% iron, is another product of the Huntington Works. It is a strong heat-resisting, non-magnetic alloy, with resistance to progressive oxidation at high temperatures. Inconel "X", an age-hardenable modification of Inconel, is employed primarily for high temperature service in gas turbines and jet engines.

Increased data on the high temperature properties of Inconel has recently been made available. This data is based on both field and laboratory tests, particularly with reference to performance at temperatures up to and including 2000°F. Results have confirmed the value of Inconel for such high temperature processes as those involved in the cracking and reforming of natural gas.

Recently introduced by the Huntington Works in this connection has been a hot-rolled Inconel "T" section. It is now produced in one standard size $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ inches in lengths up to 15 feet. Manufacturers of furnaces and other high temperature equipment now have available to them ready-made and uniform structural parts at considerable economy over the cost of fabricating these parts in their own shops. The section can be welded, riveted or otherwise joined without difficulty.

Two other recent industrial developments

(Continued on Page 9)

Lots of Laughs at Golf Burlesque

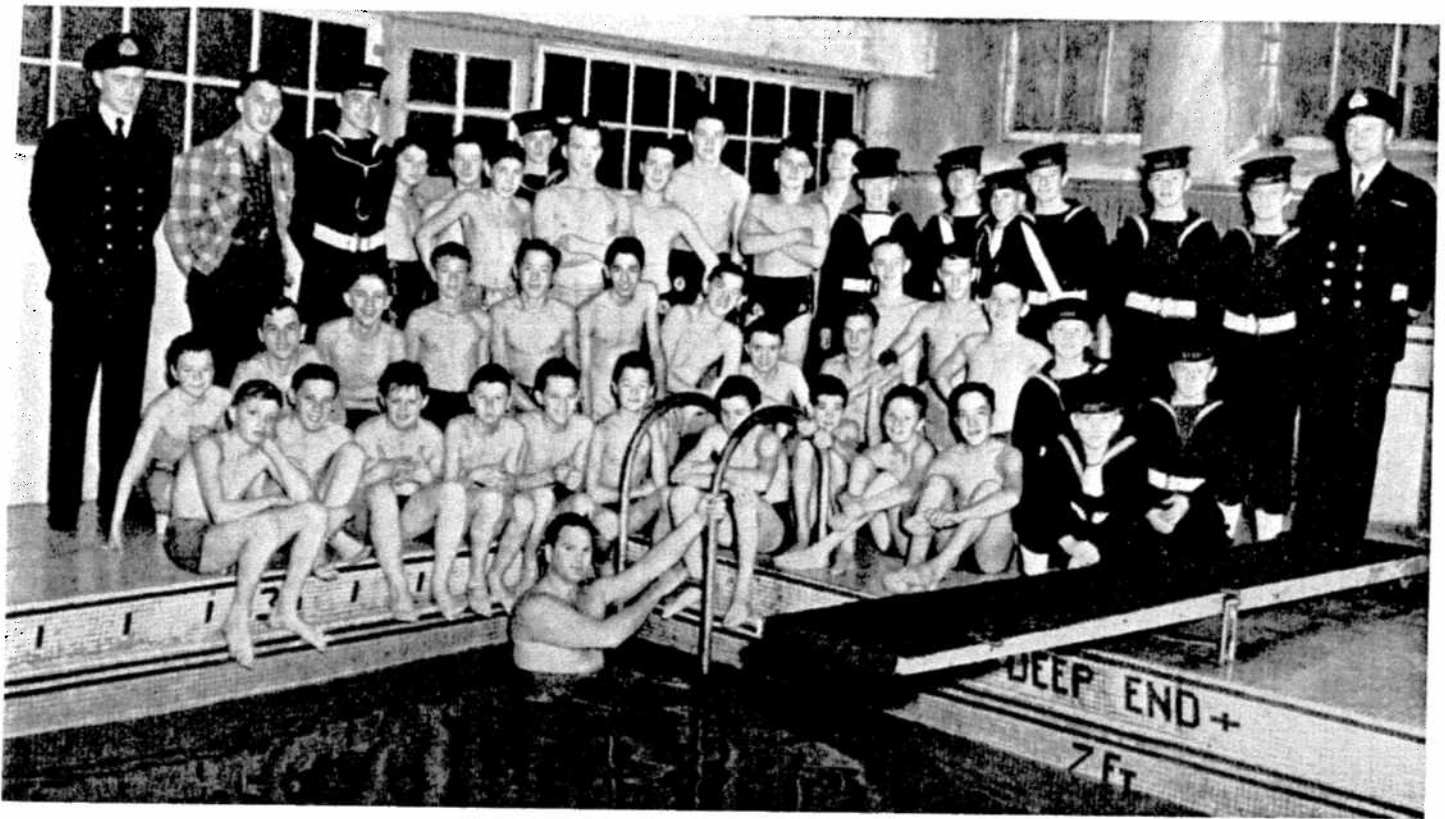


After taking a beating all summer Old Man Par had a day off at Idylewyld Golf Club for the final tournament of the season. The course was cluttered up with so many obstacles of one kind or another that nobody even gave him a thought. Typical of the harrowing treatment arranged for the costumed players at the big burlesque was the send-off at the first tee, pictured above, where the hazards included the wild skirl of the bagpipes and the nervous twitching of Farmer Brown's feet. The determined player about to drive (?) is John Gartley of Open Pit. In the background are Bert Chapman, Dick Waide, "Ash" Clarke, and Stan Brunton. Farmer Brown was the club pro, George Harrison. The annual stag party wound up a memorable day.

INCO FAMILY ALBUM

This month we welcome into our steadily growing album of Inco people the following happy families: (1) Mr. and Mrs. Don Jankoski (Murray Mine) with Randy, 4 mos. (2) Mr. and Mrs. Grant Morrison (Garson Mine) with Douglas, 10, Wayne, 14, and Bruce, 17. (3) Mr. and Mrs. Fred Creswell (Coniston) with Donald, 13, Leslie, 2½, Kenneth, 6, Diane, 10, and (back) Jack, 20, Doris, 21, Betty, 16, and Bob, 18. (4) Mr. and Mrs. Louis Core (Copper Cliff) with Alice (Mrs. A. Lalonde), Simone (Mrs. A. Barton), Louis, 21, Harriett, 23, and Jacqueline, 7. (5) Mr. and Mrs. Norman Mitchell (Levack Mine) with Norman Jr., 11, Donald, 9, and Muriel, 8. (6) Mr. and Mrs. John Dingwall (Creighton Mine) with Scott, 3 mos. (7) Mr. and Mrs. Leo Gies (Frood-Stobie Mine) with Larry, 8, Noella, 10 mos., Emma, 6, Linda and Deanna, 4, Sally, 12, and (back) Billie, 13, John, 10, Barbara, 14, and Leo Jr., 15.





"Bounding Main," Winter Style

The old salts of Admiral Mountbatten Sea Cadet Corps, Sudbury, still take to the waves once a week as usual, but for the winter months they've moved from Lake Ramsay to Prete's Pool. Every Wednesday night a class of about 40 cadets will receive swimming lessons from Clarence Viau, seen in the above picture on the pool ladder. In the front row are Cadets Hobbs, Fiander, Morin, Gordon, DeCou, Holovy, Chapman, Chatelaine, Currie, DuChene, Lloyd; centre row, Cadets F. Holliwell, Bouillon, Wright, Holliwell, Ing, Haddad, Sarre, Knight, Rylisky, McLellan, Perrault, MacDonald, McDermid, Demeis; back row, S/Lt. Moland, PO Prete, PO Ing, Cadets Ralph Stewart, Quinn, DeCou, R. Morin, Dickerson, LaPierre, Morrow, Mann, Bolton, Wilson, Burns, Haggerty, and Lt. Mooney, commanding officer of the corps.

Creighton Miner First Here in 1911



MR. AND MRS. ARVIT NELSON

Arvit Nelson, well-known Creighton Incoite who retired on pension November 1 with 27 years and three months' credited service, was born in Finland in 1885 and was a farmer there before coming over to the United States in 1905. He was employed at the copper mines at Calumet, Mich., for six years. His first contact with the nickel industry was in the winter of 1911 when he worked at Creighton Open Pit; he transferred to Copper Cliff No. 2 Mine and then to the

smelter. In 1916 he left the Company to help drive a drainage tunnel under the railroad tracks at Schreiber, and after that hard-rock assignment was completed he headed for Cobalt to work in the silver mines. He returned to Creighton as a raise driller in 1922, convinced there was no better place to work and ready to settle down.

He was married in 1923 to Annie Isosomppi of Sudbury, who has a daughter by a previous marriage, Mrs. Bill Maki of Creighton.

Mr. and Mrs. Nelson have their own cosy home at Creighton and also an attractive summer camp on Black Lake where they expect to spend many happy days of retirement.

Perusini Preserves Are Home-Grown

There would be no counting the fine displays of preserves gleaming on basement shelves in Sudbury District homes these days, but few of them have the unique distinction of being all home-grown. That's the proud boast of Mrs. Joe Perusini, Whittaker St., Sudbury, seen in our cover picture with some of the great variety of fruits and vegetables which she "put down" this fall.

Her husband, better known at Frood-Stobie Mine as "Boxhole Joe," is one of the district's most successful horticulturists. At the peak of the growing season his garden would astonish visitors from other sections of Canada who seem to think the Nickel Belt is a waste of barren rock where even the toughest weeds lead a tortured and uncertain existence.

Included in Mrs. Perusini's cover-shot dis-

play of Sudbury-grown preserves are crab-apple jelly and jam, black and red currant jelly, raspberries, strawberries, three kinds of cherries, three kinds of plums, two kinds of crabapples, tomato catsup, peppers, Swiss chard, and string beans.



BEST GARSON PATROL

At the Garson Boy Scout camp, held this year at Joe Lake, these lads won the competition for the best patrol, and each received a camping kit and compass. In front are Roderick Penman and Ernie Foisey; in the second row are Joseph Brosseau, Robert Stone, and David Ballantyne. In addition, Robert Stone won the prize for best all-around scout at the camp.



FROOD-STOBIE TIME OFFICE STAFF: (front row), "Joe" Bell, Jack Deacon, Dick Waide, John Orr, Garnet Milks, and Arnold Langelle (relieving); (back row), Bob Horne, Bob Johnston, Tom Ratchford, Oliver Penman (chief timekeeper), Harold McGinn, Carl Nesbitt, Bill Ross.

Timekeepers Are Busy Boys

There are few things in life more vital to a man than his pay cheque. Commencing with this issue, the Triangle presents photographs of the men whose job it is to see that an Inco worker gets full credit for his work, whatever his job or his rate of pay. These are the timekeepers at the various plants, and it would be difficult to overestimate the importance of the speed and accuracy with which they carry out their duties.

From the time clock cards and from the records turned in by the foremen, the timekeepers compute the amount of each employee's basic earnings. They work out the credits for double time for work performed on holidays, and for straight time for holidays not worked. They register the allowances for shift differential. They prepare cards for vacation pay. Where bonuses are involved they gather the credits and costs for each working place from the various departments which prepare them, determine the bonus earned, and the employees who share it.

This tidy bit of information must all be assembled and hustled to the pay office on the dot for every pay period, so that it may be checked and then incorporated in those nice little documents which say, "Pay to ...".

If any detail of his pay cheque is not clear to him, an employee should not hesitate to ask for an explanation from a timekeeper at his plant, who will be glad to furnish the necessary information. That's just another part of the time office service.

Income tax forms are distributed to employees by the time office, and timekeepers are prepared to answer questions about them and aid in their preparation. Canada Savings Bonds applications are also handled by the timekeepers.

For the information of supervision the time offices keep records of production, shipments, direct operating costs, force reports, absentees, and other statistics.

Just Never Had Time for Cupid



A colorful character who'll be missed by many a crony at No. 3 Shaft, Frood-Stobie, is Frank Harrington, who has settled down to a life of pensioned leisure after almost 20 years' credited service with the Company. At the time of his retirement he was warehouseman on 600 level.

The boys gave him a rousing farewell party at the Sampo Hall at which Asst. Supt. Frank McAteer presented him with a well-filled wallet. "Pretty nice thing for them to do, wasn't it?" he says proudly.

Frank was born at Chatham, N.B., on August 22, 1880, son of a lawyer. He started out to be an electrician but gave that up for steady employment in the sawmills of Maine

and New Brunswick, where he worked for 10 years. Then he took a job on harbour construction and was four years at that. He went West and was a hotel clerk in Winnipeg for another four years. The gold camps called and he headed for the Porcupine, becoming a toplander at No. 11 Shaft, McIntyre. About 1928 he came down to Sudbury and signed on with Mond Nickel Co.

"Always been too busy to get married," is the way Frank explains his bachelorhood. Now he has the time but not the inclination. For the past 14 years he has lived at the Balmoral Hotel in Sudbury. He is a loyal hockey and baseball fan. The accompanying photo is the second he's had taken in his life.



NEW TROPHY PRESENTED

A brand new trophy, donated this year by Racicot-Darrach for the Copper Cliff shift softball league, is accepted here by Jimmy Davidson, manager of the Machine Shop team, 1950 winners. The presentation is made by Bill Darrach (left) on behalf of the firm.

Gala Day at Levack's Club Great Success

A Gala Day in which young and old of the community enthusiastically took part was a sparkling success at Levack Employees' Club on October 17. Proceeds will be used for the annual Christmas entertainment for the children.

While every event on the highly varied program drew a full quota of interest, easily the most outstanding was the children's competition for decorated bikes and doll carriages. The town's stores were cleaned right out of crepe paper as Levack's youngsters gave full play to their artistic talent, and the lineup of at least 200 entries was a fine sight indeed. Girls who decorated their doll carriages were required to dress themselves as "little mothers", a feature which brought out many cute and quaint costumes.

First of the accompanying pictures shows the two young ladies who copped the first and second prizes in the "little mother" event: Elaine Fraser and Betty Conley.

2. These were the winners in the various classes of decorated bikes. Right to left: Richard Cucksey and Sheila O'Shell, tricycles; David Johnson and Norman Bouclin, boys' bicycles; Margaret Von Klem and Gwen Davis, girls' bicycles. All received snappy prizes.

3. It was Underground vs. Surface in the tug-o-war contest, which was staged by flashlight. The boys from the stopes were too powerful for their opposition and wasted no time in racking up their victory. Here's the winning team: front row, John Treflak, Alex MacPherson, Bill Menzies, Gordon Campbell, and Bill Mills; back row, Al Rowley, Ed. Bechard, Frank Chisholm, Elmer Johansen, Jim Baxter, and Nelson Allen (judge). In Picture No. 4 a little girl stands in open-mouthed admiration at the mighty heaving of Johansen, Bill Menzies, Al Rowley, and Alex MacPherson.

97 Entries in Bowling

5. There were 97 entries in the contest for the best single game scores on the Employees' Club bowling alleys. Top tally among the ladies was a 294 rolled by Mrs. Sid Kemp, seen here with her trophy. 6. Hottest trundler among the men was Len Roberts, who clicked for a 380, best game he ever rolled in his life.

In the cribbage tournament Glen Thrall emerged triumphant; at bridge the first prize was won by H. MacKenzie and R.



Refinery Threatening Inco Safety Record



Ceaser, and the consolation by Mrs. C. McGowan and Mrs. K. Gilbert. The draw for a floor lamp was won by Mrs. A. Ryter.

A bingo game operated in the gymnasium, and various games of skill and chance in the main auditorium, rounded out the many-ringed circus which made the club a hive of activity throughout the evening. The Girl Guides' home-made candy booth, well-stocked with delicious sweets, was sold out within an hour. The fish pond operated by the Wolf Cubs also did a roaring business.

Committee in charge of the well-organized affair was composed of Lloyd Davis (chairman), T. Hamilton, W. Shesnicky, M. Stelmakowich, O. Deziel, N. Allen; helpers were T. Soden, A. Canty, S. Kemp, A. Weir, H. Gillis, and 11 teen-age girls who sold tickets, assisted at the bingo tables, and generally made themselves useful as well as ornamental. All are to be warmly congratulated on their undertaking.

Six-Team League Looms for Hockey

Although the full picture is still a little hazy in some details, it begins to look as if the Nickel Belt will see a six-team inter-city hockey league in operation this winter. Just where all the players are going to come from could be a matter of conjecture, but they'll probably turn up. And one thing is certain—the urge to build local hockey up to the standard of those glorious old Allan Cup days is definitely showing signs of life, which is good news for eager fandom.

A Soo-Sudbury Hockey Association has been formed with entries from Soo Greyhounds, Soo Red Wings, Falconbridge Flyers, Caruso Pontiacs, Sudbury Wolves, and Sudbury Miners. President of the circuit is Jack Mihell of the Soo, vice-president is Charlie Taylor of Falconbridge, and secretary-treasurer is Don Mackintosh of Sudbury.

To provide an even brand of competition, it is proposed that in eight of the schedule's 14 games the three junior teams will be pitted against one another; the other six matches for each club will be junior-senior contests. Could be that they won't be so uneven, at that.

A long-established Inco safety record is tottering these days as Copper Refinery sweeps down the home-stretch toward the 227,000-safe-shifts mark held by Coniston Smelter. At 4.30 p.m. on October 20 the Refinery zoomed past the 200,000 post and Safety Engineer Lionel Roy said the boys were really just getting nicely started. They could hang up a new all-Inco record about December 15.

Supt. Russ Hewgill called a representative group from the plant into his office and asked them to take back to their co-workers in the various departments his heartiest congratulations and best wishes. To pile up a total of more than 200,000 consecutive shifts without a lost-time accident was, he said, a wonderful achievement indicating splendid

co-operation among all personnel, and he took great pride in this display of the real Refinery spirit.

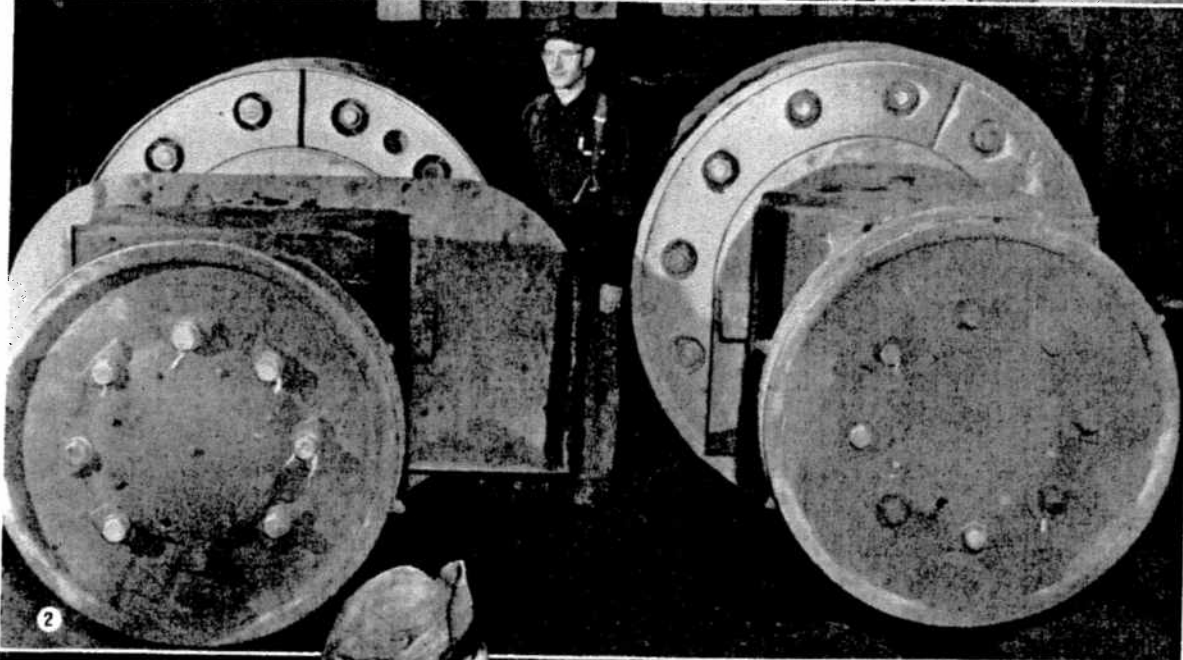
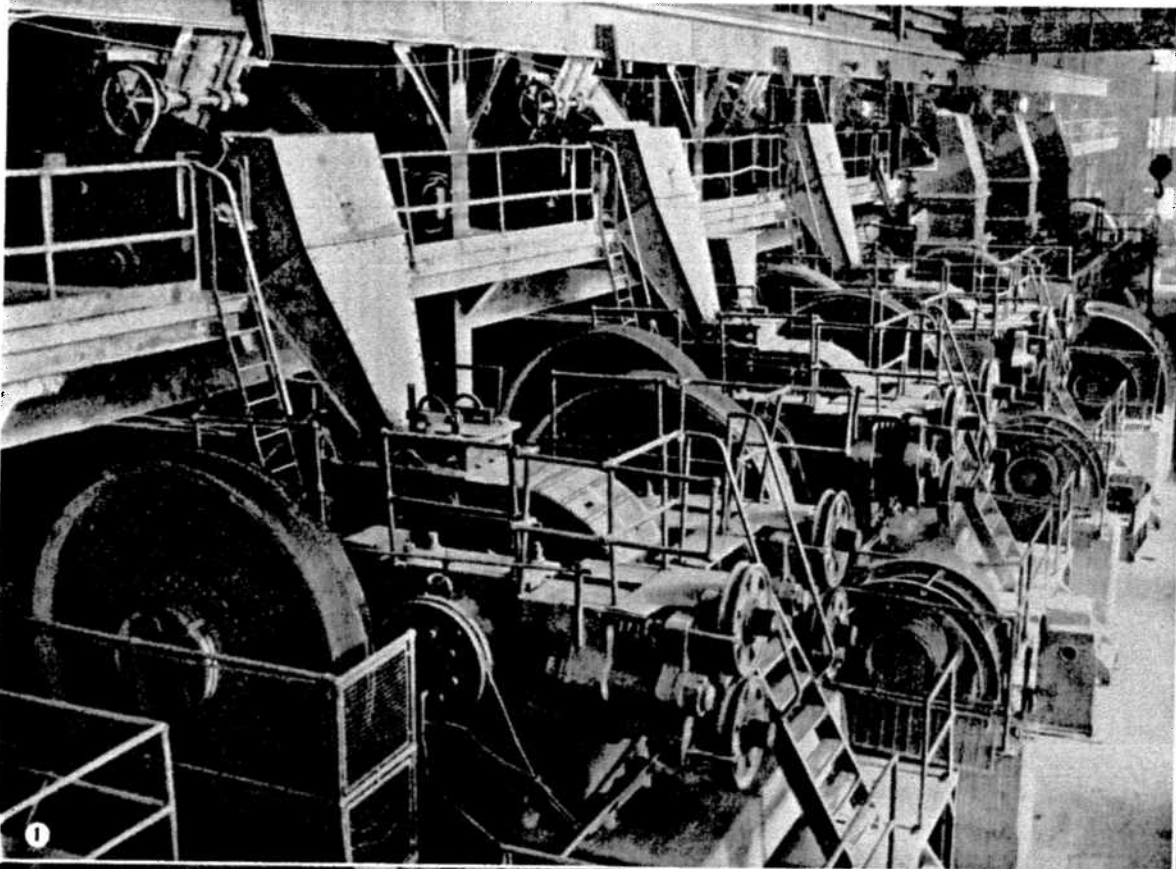
In the above picture Supt. Hewgill shakes hands with Dan McTaggart of the power department; others, from left to right, are Safety Engineer Lionel Roy, Harvey Bailey of wire bar storage, George Perzo of the silver refinery, Jim Mechan of stores, Ed Brown of wire bar casting, Dan McDonald of mechanical, Sam Budzak of the acid plant, Gene Adamo of anode casting, Bill Cryderman of tankhouse, Nick Choep of the selenium plant, and Asst. Supt. Austin Smith.

Theatre ticket awards have again been distributed at the Refinery to all who had a hand in rolling up the second 100,000 shifts of the plant's impressive record.



Four Mynerichs on Creighton Roll

When the theatre tickets were being handed out at Creighton last month in recognition of the mine's 100,000-safe-shifts accomplishment, Supt. Earl Mumford extended special congratulations to the Mynerich family, four of whom are on the Creighton payroll. They're seen above: Carlo, skip-tender, and his three sons, Tony, rockhouse, Snug, topman, and John, raise man. All work at different shafts. Carlo started with the Company 25 years ago.



It's a Hard Life for Roll Shells in Copper Cliff Crushing Plant

Although the general trend in the mining industry seems to be away from rolls and toward the use of large diameter rod mills instead, as exemplified by modern design at Inco's new Creighton mill, it is nonetheless noteworthy that Traylor rolls have played a very important part in Copper Cliff crushing practice since 1930.

Beating tough copper-nickel ore down to the size necessary for concentrating operations at the Copper Cliff plant is an assignment only for stout metals and powerful machines. The first picture in the accompanying layout shows one of two batteries of three Traylor rolls in the crushing plant which receive ore feed from the standard and shorthread crushers 27½ plus ½ in. in size and reduce it to minus ¼ in. before passing it on to the rod and ball mills in the concentrator for grinding to a fine pulp.

Each of the five rolls handles an average of 337 tons of ore per hour. Passing between two revolving roll shells, the ore is subjected to a pressure exerted by the tension springs of from 20,000 to 30,000 pounds per lineal inch of roll face. This kind of treatment is more than any self-respecting hunk of sulphides can stand. It is also hard on the roll shells, as Picture No. 2 clearly shows. This pair of shells went into operation on No. 1 Traylor roll on August 22 and were removed on October 1, a total service of only 39 days. As installed they were 9¼ inches thick, but when they were removed the one on the left was worn down to three-eighths of an inch, regarded as an absolute minimum. When crushing open pit ore the average life of the shells is 40 days; on underground ore they last an average of 55 days.

Shift Boss Has Lots To Do

Standing between the shells in this picture is Wilf Barrette, shift boss. In the crushing plant a shift boss is a very busy individual; the life of the shells depends on his careful adjustment of the tension of the springs in the rolls, changing the shims, regulating distribution of the feed on the face of the shells, and regulating the carborundum bricks which grind down the ridges on the shells. In addition to watching these things, he is a wise man if he keeps his tonnage up.

In Picture No. 3, Walter Thorne, welder, is using his torch to cut a worn roll shell away from its core. Instead of going to the scrap heap the sections of the used shell are straightened out and sent off to the mines to be used as chute liners underground.

In Picture No. 4, Hank Gifford is tightening the core bolts to ensure the correct tension on a new roll shell. The shell has been shrunk on to the core by heat induction treatment to a temperature of 180 degrees C. The huge shaft on which the core revolves is annealed open hearth forged steel. Each of the two shells in a roll is driven by a 200-h.p. motor with belt drive.

Picture No. 5 shows storage of roll shells on a concrete strip beside the crushing plant. Adolfo Talamelli is spotting one of the shells, each of which weighs five tons and is 79 inches high. The shells are made of Hecla 83 forged chrome steel, and it will be no surprise to any product-proud Inconite to learn that there's a goodly percentage of nickel in their makeup, as well as chrome, molybdenum, and carbon.

Before it goes into operation every shell is tested by the Research Dept. at four different points on the inner bore to make certain it is up to the Brinell hardness of from 325 to 375 specified by Inco. The shells are then mated according to hardness, and a card record is kept of the life history of each pair.

Inco Mill Products Find Varied Uses

(Continued from Page 2)

have stressed the high temperature advantages of Inconel. The trend toward the use of taconite—a low grade iron ore occurring in fine powdery form—is one of these. Due to the fact that this powder is so fine that it cannot be used in blast furnaces, it must be made into lumps or pellets. This is accomplished by tumbling a slurry of the powder and water, to form lumps. However, these crumble easily unless hardened in a metal furnace, the temperature of which ranges between 800°F. and 1400°F. Repeated heating and cooling cycles of the furnaces subject the metal parts to embrittlement and accelerated corrosion. Inconel has been found to be the only commercially available metal to prove satisfactory in this application. Since closing down of a furnace is costly, the material giving the longest service life is essential.

The second development is the "popping" of perlite—a type of volcanic rock that, when crushed and heated, has a tendency to puff or "pop," similar to several cereals like puffed wheat and rice. In this new form, it is coming into wide use for such purposes as heat and sound insulation. Inconel for furnace parts in the puffing process, which is carried out in a temperature ranging between 1850°F. and 2000°F., has been found ideal for this application.

Another growing use of Inconel has been for exhaust stacks or pipes on busses, tractors and motor trucks. Some units made of this Inco nickel alloy have given upwards of 300,000 miles of service compared with 25,000 to 45,000 miles for mild steel. While the initial cost of these components made of Inconel is considerably higher than those of mild steel, the savings in "time-out" for repairs, road breakdowns and replacements warrants its use.

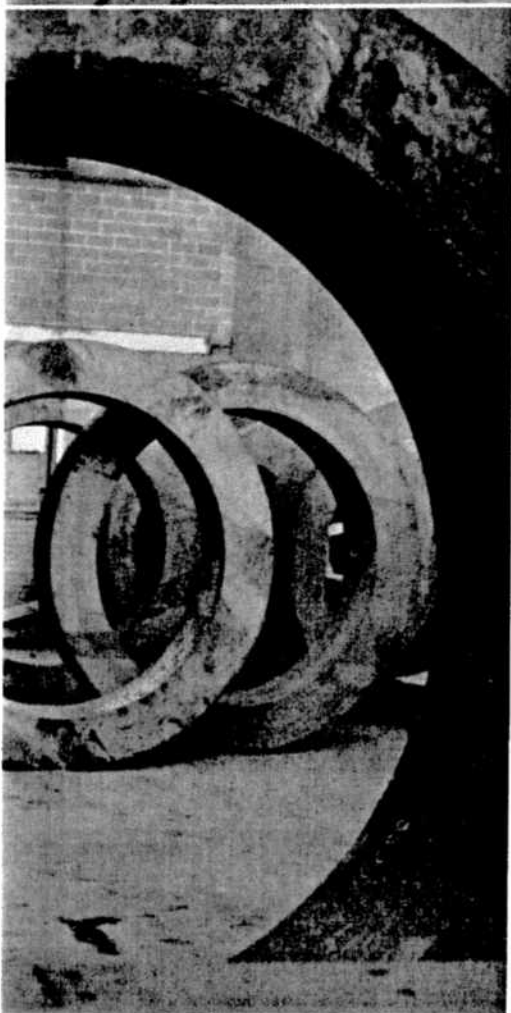
In the consumer field the use of Inconel for sheathed heating elements for electric cooking ranges and Monel for hot water heater storage tanks has continued to expand. Fuel tanks for boats powered with gasoline engines are being made of welded Monel because of the added precaution their resistance to corrosion provides against failure and the consequent escape of volatile fuel into the bottom of the boat.

Among some of the other products produced by the Huntington Works are: "R" Monel which is similar to Monel but modified slightly in composition improving machinability; "K" Monel a non-magnetic alloy which can be age-hardened by heat treatment for applications requiring a corrosion resisting material with extremely high strength and hardness; "KR" Monel which is similar to "K" Monel but possesses improved machining characteristics; and Duranickel which is an age-hardenable type of malleable nickel which can be heat treated to develop strength and hardness comparable to that of the best heat treated alloy steels.

THE SECOND STAGE

"Has your baby learned to talk yet?"

"Oh, sure. Now we're trying to teach him to shut up."



Garson Mechanical Dept. in Charmed Circle



This 100,000-safe-shifts business is getting to be all the style, but it can't happen too often to suit the Safety Department—they hope it will become as prevalent as taxes and weather. Garson Mechanical Department recently entered the charmed circle of 100,000 men by working from April 6, 1946 without a lost-time accident. Pictured above are the lads who turned the trick—and many more to them! They celebrated their splendid record at a party held on October 21 in honor of Arthur Lye and John Beli, two of the department's recent pensioners, who were presented with gifts and purses of money by Ray Beech, master mechanic. Safety Supt. A. E. O'Brien and Mine Supt. Foster Todd both spoke in appreciation of the great safety showing of the department and the enviable record of service established by Messrs. Lye and Beli, both of whom came out to join their former fellow-workers for the picture-taking.

BRONSON ON FIRE

Chuck Bronson, one of Copper Cliff Smelter's ace bowlers, covered himself with stars in Nickel Belt major bowling league ranks when he set new seasonal records for high

single and high triple individual scores. Rolling for Central Cab, he sent the maples flying for a 942 triple; his hottest game was his second, a 393, although he was good for 322 in his final effort.



AT INCO CLUB DANCE

Among the good-looking young people having a nice time at the Inco Club cabaret dance on October 27, with Johnny Juryczak and his men furnishing the melody, were Pat Stanley and Mrs. L. Benson, Lloyd Benson (Metallurgical, Copper Cliff), and Raymond Ayres.

RED FEATHER AT COPPER CLIFF

In the Red Feather campaign now being completed, Copper Cliff has exceeded its contributions of 1948 and 1949 with a total of \$4,250. Last year, the Cliff donations were \$4,196, and in 1948 they were \$4,133. G. S. Jarrett, chairman of the Copper Cliff drive, expresses appreciation to those who canvassed and to the general public for its generous support.



Another Shop Triumph

which makes it possible to reclaim the teeth on the worm wheel of a slag car. In future this will be the procedure, instead of buying new wheels for the 66 cars in service at the smelter, and the saving will really be something. Picture shows the ingenious set-up for handling the job on a universal milling machine. The wheel is set on a circular milling table with a wedge angle beneath it, and the newly welded teeth are machined with a special cutter arrangement. Operating the machine is Johnny Sopuck (second from left) and observing are Lloyd King, Fred Lumley, and Joe Sauve.

The boys in the machine shop at Copper Cliff Smelter thought up another new stunt the other day

The difficult thing about knowledge is that it can only be acquired on the installment plan.—Banking.



No Accident in 11 Years

pleted 150,000 shifts without a lost-time accident. They've been working for almost 11 years without a serious mishap — their last lost-time accident was on December 14, 1939. Hats off to these safe workers: front row, H. Capistrand, J. Misilinski, L. Marcon, B. Barkley, H. Bray, H. Brenconier, J. Stacey, P. Marcon, E. Bray; centre row, Bill Johnson, mechanical foreman, D. Parker, E. McKerral, T. Zanutta, R. Renaud, F. Rivard, P. Laprairie, A. Ladurante, J. Paradis, T. Worobec, A. Gobbo; back row, T. Fitzgerald, A. Ethier, S. Alberton, A. Ethier, Sr., B. Deyneka, W. Shelegy, R. Spencer, S. Jeffrey, B. Piggot, E. Johnson. Needless to say, Master Mechanic Frank Parker is pretty proud of this kind of performance.

One of the main reasons why Coniston has long been famed as a safety-conscious plant is its mechanical department, where Bill Johnson's crew recently com-

and the fourth involved problems on how to fight certain types of fires.

In the pumper division, Creighton No. 3 Shaft had a perfect score of 100 points, Coniston Town was next with 51, and Levack Mine had 50. Copper Refinery No. 2 also had a perfect tally in the non-pumper section; scoring of the other brigades was as follows: Copper Refinery No. 1, 83; Garson, Creighton No. 5 Shaft, Coniston (Blake), Copper Refinery No. 3, Open Pit (Negus), Frood, Murray, High Falls, all 75; Coniston (McLean) 70; Coniston (Jeffrey) 69; Open Pit (Kilby) 50.

Creighton's win was the more gratifying to its brigade's supporters because, coming on top of the baseball championship and 100,000 safe shifts, it makes 1950 a grand slam year for the big mining camp. Coniston Town won the pumper brigade championship last year; prior to that it was held for three years by Levack Town. Last year's non-pumper title was captured by another Copper Refinery brigade captained by John Clara; prior to that it was held for three years by Open Pit.

Commenting on the 1950 competition, Fire Inspector Bill Humphries asked that his appreciation be extended to all whose interest and co-operation helped make it a success. He warmly congratulated all the brigades on their efforts.

The rung of a ladder was never meant to rest upon, but only to hold a man's foot long enough to enable him to put the other somewhat higher.

South Africans Admire Creighton

Working toward their mine captain's tickets by getting mining know-how in other countries, two husky young South Africans recently joined the Inco force at Creighton, where they expect to remain for about six months. Two pals who came with them have gone on to Yellowknife, and the plan is that



the four will pool their Canadian experience. They will also work in mines in the United States and South America before returning home after a two-year absence.

Picture shows Reg Abbott, 22 (left), and Neville Stopforth, 23 (right), going over some snapshots of their native country with Johnny Douglas, Creighton safety engineer. Reg comes from Transvaal and Neville from Capetown, but both have been employed at the Rhokana Corporation's copper mine in Northern Rhodesia, where 10,000 men work in three producing shafts. Deepest operations there are 4,000 ft., they say, but South African mines go down to 11,000 ft.

Reg and Neville came to Inco strictly on speculation and were highly pleased to get jobs without any waiting. Creighton is the safest and best ventilated mine they've ever seen, and they are much impressed with the high standard of mining practice in Canada. They like the country immensely, and give the impression it wouldn't take much coaxing to persuade them to settle down here. Perhaps after six months they'll be confirmed Canadians, and a finer type of young man the country couldn't hope to get. Both are single, by the way, girls.

BY THE TONE

One day a piano tuner was boasting about his twin sons.

"How do you tell them apart?" asked Mrs. Miller.

"All I have to do is pinch them," he replied. Herbie yelps in high C, and Willie is a full tone lower."

New Inco Fire-Fighting Champions Crowned



CREIGHTON NO. 3 SHAFT — PUMPER CHAMPIONS:

Front row: Herb Wilson, Albert Blackwell, Bert Behenna, Frank Blum, Roy Serpell, deputy chief, Ollie Mattinen, Fred Pentney, chief. Back row, Matti Jurman, Carl Cretzman, Marcel Cayen, Bill Blackwell, Louis Kurock, John Dingwall. Absent, Graham Wilson.



COPPER REFINERY NO. 2 — NON-PUMPER CHAMPIONS:

Front row: M. McNeil, R. Miller, E. Sevigny. Back row, L. Kitchener, chief, H. McPhail, J. Marion, I. Carrey, assistant chief, S. Mitchell, T. Pierce, E. Brooks, H. Boluk, captain, W. Lukey. Absent, S. Moore, W. Duchesne, C. Wood, L. Piche.

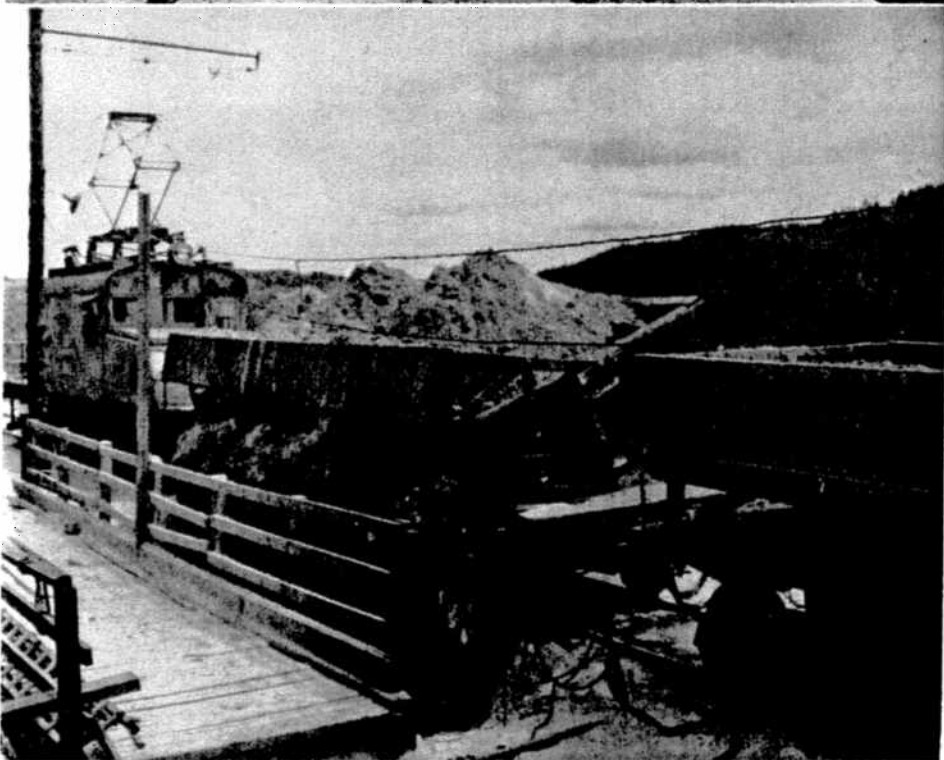
Hustle and enthusiasm, backed by long hours of practice, paid off with the jackpot for two Inco fire brigades last month.

In the fifth annual inter-plant firefighting competition Creighton No. 3 Shaft and Copper Refinery No. 2 Brigade scored highest in their respective classes and will receive shields and individual awards emblematic of their triumphs.

The competing brigades in both pumper and non-pumper divisions were put to four different types of tests. Each had to perform an evolution in which they had to make a hose connection, run the line to the site of a theoretical fire, and knock over a target with the stream of water; a penalty of five

points per second was charged for exceeding the time limit set for the evolution. Another test required thorough knowledge of the proper kinds of rope knots for rescuing people from a fire, either conscious or unconscious, and for hoisting nozzles and ladders at a burning building. The third test was a quiz on the safe use of flammable liquids.

2½ Million Yds. of Sand Moved At Levack to Fill Old Stopes



Since the operation commenced in 1943, a total of 2,434,640 pit yards of sand had been excavated at September 1 from the pit on the outskirts of Levack, hauled to the mine, and dumped down raises to fill empty shrinkage and blast-hole stopes and also to supplement sorted rock as current fill.

Pictures show two steps in the operation. Excavating and loading of the sand is done under private contract by Cecchetto and Sons, and in the top view their 1½-yd. shovel is

seen loading the fill into 42-ton standard-gauge air-operated side-dump cars for transport to the mine. Profile of a considerable section of land along the bank of the Onaping River has been given a new look in the process.

An Inco locomotive picks up the loaded cars at the pit siding and hauls them to the mine where the sand is dumped into one of five raises leading to the underground workings. The second picture shows a car being

unloaded at the main fill raise.

Underground the sand fill either pours directly into a stope or is slushed through a trench leading to the stope.

It is expected that the program for sand-filling the old open stopes in the mine will be completed about July of 1951.

John Soroka Got A Chilly Reception

John Soroka's first job when he came to Canada in the winter of 1913 was with the C.P.R. as a section man at White River. The mercury dived to 75 degrees below zero the day he arrived, and he wished he had never left Poland. But life has been good to him



since, and he retired on Inco pension November 1 with everything he needs for a long and comfortable retirement—good health, a fine home at Coniston which he recently completely modernized, and two grandchildren who keep him on his toes.

John completed almost 30 years of steady service in the sinter plant at Coniston Smelter.

He was married at Ethelbert, Man., on November 24, 1918, to Annie Paschnyk. Their two sons have the same birth date, November 6; Stanley is employed with Sudbury Hydro and Walter works at Coniston Smelter.

John's hobbies are gardening and raising chickens, although he admits he's not so crazy about the hens as he is about their eggs—at 70 cents per doz.

"THE SUCCESSFUL DESIGNER"

The designer bent across his board,
Wonderful things in his head were stored;
And he said as he rubbed his throbbing
bean,

"How can I make this tough to machine?

If this part here were only straight

I'm sure the thing would work first rate.

But 'twould be so easy to turn and bore,

I'd never make the machinists sore.

I'd better put in a right angle there,

Then watch those babies tear their hair;

And I'll put the holes that hold the cap,

'Way down in here where they're hard to
tap.

Now this piece won't work, I'll bet a buck.

For it can't be held in a vice or chuck;

It can't be drilled and it can't be ground.

In fact, the design is exceedingly sound."

He looked again and cried: "At last!

Success is mine—it can't even be cast!"

Average profit of Canadian manufacturing companies is six and two-fifths cents per dollar of sales.



White Eagles Capture Two Soccer Trophies

Two of the three cups for which Sudbury District soccer teams do annual battle were won this fall by the powerful White Eagles. They took both the Charity and Star trophies, but bowed to Ryan Club in the final of the Evans.

Accompanying pictures show the Eagles in hot combat with Caruso Club for the Star Cup; the Polish team won this beautifully played game by a 4-1 score, displaying dazzling head-work and passing.

1. Tino Cerri comes galloping out of the Caruso nets to break up a dangerous Eagle attack. Taking a nose-dive at left centre is Malinowski of Eagles; Deluisa of Caruso is on the right and the players in the centre are Podkulski of Eagles and Aldo Tarini of Caruso.

2. Cerri is again in the thick of the action.

The determined Eagle coming in on the left is Alex Psiuk, and the Caruso defensive player is Rico Trevisiol; in the background is Louis Deluisa.

3. Riz Benedetti of Caruso and Mieczyslaw Styczynski, captain of Eagles leap for the advantage.

4. Teddy Tadeusiak, top-scoring Eagle and runner-up to Taffy Davis of Garson for season's scoring honors in the league, goes high to intercept a throw-in. Secondo Brun of Eagles is at the left.

Courage for the great sorrows of life, and patience for the small ones; and then when you have accomplished your daily task, go to sleep in peace—God is awake.



Mr. and Mrs. Euclid Dupuis bought a \$500 Canada Savings Bond with their half of the big Inco Suggestion Plan award. On the left is A. L. P. Brien, manager of the Sudbury Branch of the Canadian Bank of Commerce.



Mr. and Mrs. Winston Gillen banked their \$500, planned to make an extra payment on the home they're buying. They're shown in the Bank of Toronto's main branch in Sudbury. The teller is Mrs. Les Hart.

Smelter Men Get \$500 Each

A \$1,000 Suggestion Plan award, first since Charlie Brown turned the trick in October of 1948, was collected last month by two Copper Cliff Smelter workers, Euclid Dupuis and Winston Gillen. They split the swag, \$500 each.

Thicker liners on the hoods of the converters in the smelter, placed in the area of greatest flame attack, was the suggestion which earned the big dough. Dupuis and Gillen worked independently on the idea, unaware that the other was on the trail, and

since both contributed to the design finally installed, the Suggestion Plan Committee decided to divide the prize.

Delighted with their award, which was considerably more than they had expected the suggestion to earn, Mr. and Mrs. Gillen banked the money and planned to make a substantial payment on the home they are buying. They have a family of five: Ross, 13; Gordon, 9; Harriet, 6; David, 5; Clarke, 3. Mrs. Gillen was formerly Nelda Harkins, daughter of Thos. Harkins, well-known Inco pensioner at Copper Cliff. Her husband is no stranger to Suggestion Plan prizes—only a few months ago he picked off a \$78 award.

Mr. and Mrs. Dupuis were also highly pleased with their \$500 windfall. They took the cheque straight down to the bank and bought a Canada Savings Bond with it.

They have a family of three, Fernand, 23, employed at Sudbury Brewing Co.; Jacqueline, 18, stenographer at Murphy Paint Co.; Marilyn, 14, who is attending Sudbury High School.

TO A DRIVER

We saw you barely miss a little boy on a tricycle this afternoon and heard you yell, 'Get the h—— out of the way! Don't you know any better than to ride in the street?' He didn't answer because he hasn't learned to talk very well yet. So we're going to answer for him.

No, the little boy doesn't know any better than to ride his tricycle in the street. He has been warned not to, but little boys don't always heed warnings. Some adults don't either, especially traffic warnings; the one limiting the speed of automobiles.

We're going to tell you something about that boy. He has a mother who endured considerable inconvenience, anxiety, and suffering to bring him into the world. He has a father who has worked hard and made many sacrifices to make him healthy and happy. The supreme purpose of their lives is to have their little boy grow up to be a useful man.

Now stop a minute and think. If you should kill a child, how would you face its parents? What excuse would you give them for having robbed them of their dearest possession? More important: What excuse could you possibly offer Him whose Kingdom is made up of little children?

Children were here long before you or your automobile were thought of. All the automobiles on earth are not worth the life of one little boy. We don't know what that little boy may someday be. But we know what you are, and it's unimportant. We could get along without you, but we can't spare a single little boy on this street.



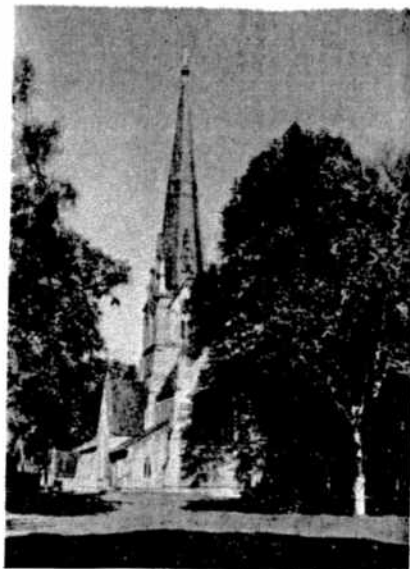
ANOTHER WINNER

Another Copper Cliff Inconite who recently carved himself a thick slice from the Suggestion Plan cake was Fred Montgomery of the sinter plant, pictured above. His design for tongs to remove tramp steel from the Traylor rolls has resulted in considerable time-saving on shutdowns. He was awarded \$121.00, and it came along just when he was due to buy new winter outfits for his four youngsters: Rodney, 9; Brenda, 8; Dennis, 5; and Linda, 4. Fred lives at Minnow Lake.

This Canada of Ours



A typical rural scene in beautiful New Brunswick.



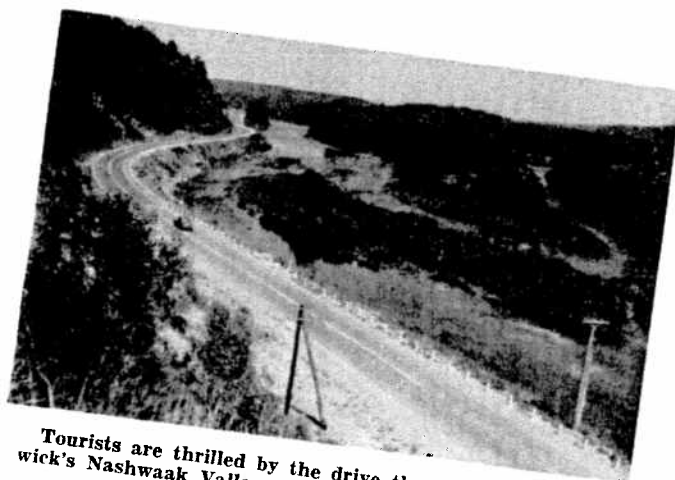
Christ Church cathedral in Fredericton, N. B.



New Brunswick rivers offer wonderful salmon fishing.



Aerial view of Fundy National Park in Albert County, New Brunswick.



Tourists are thrilled by the drive through New Brunswick's Nashwaak Valley.

NEW BRUNSWICK

By LEO LEBEL, Levack Mine

The tourist folders call it a hunter's and fisherman's paradise, but (like its heavenly counterpart) you can't appreciate New Brunswick until you see it.

Fredericton, the capital, is a dignified little city, with a cathedral that ranks among the finest examples of Gothic architecture in North America, and legislative chambers that are an exact miniature of those in Ottawa. It is the gateway to the province's vast interior, where dark, silent forests echo the splash of waterfalls, and black bear, deer, ruffed grouse, woodcock, wild geese and duck roam undisturbed. In the swift rivers there are Atlantic salmon, and in the smaller streams, brook trout.

But fish are not New Brunswick's greatest source of wealth, as you might think. The rugged, rolling timberland has given the province its biggest industry, and some of the world's largest pulp and paper mills. There is a good deal of general farming, too, and the beautiful St. John River valley produces as fine apples as any part of Canada.

Every province boasts about its tourist attractions, but only New Brunswick has the golfer's dream course at St. Andrews-by-the-Sea; Moncton's famous tidal bore, where the sea rushes 20 miles up the Petitcodiac; sailing races at Shediac, a summer stop for trans-Atlantic planes; the warm surf of the Baie des Chaleurs.

Probably the most widely-known New Brunswick scene is one that has captivated artists from all over the world. You've almost certainly seen it on calendars — the cathedral-like cliffs of Grand Manan, on the south coast, towering hundreds of feet above the sea. Carved by centuries of wind and tides, they house great colonies of gulls, and even tropical birds blown north by hurricanes.

And where else can you find the tropics in this Canada of ours?



LEO LEBEL

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