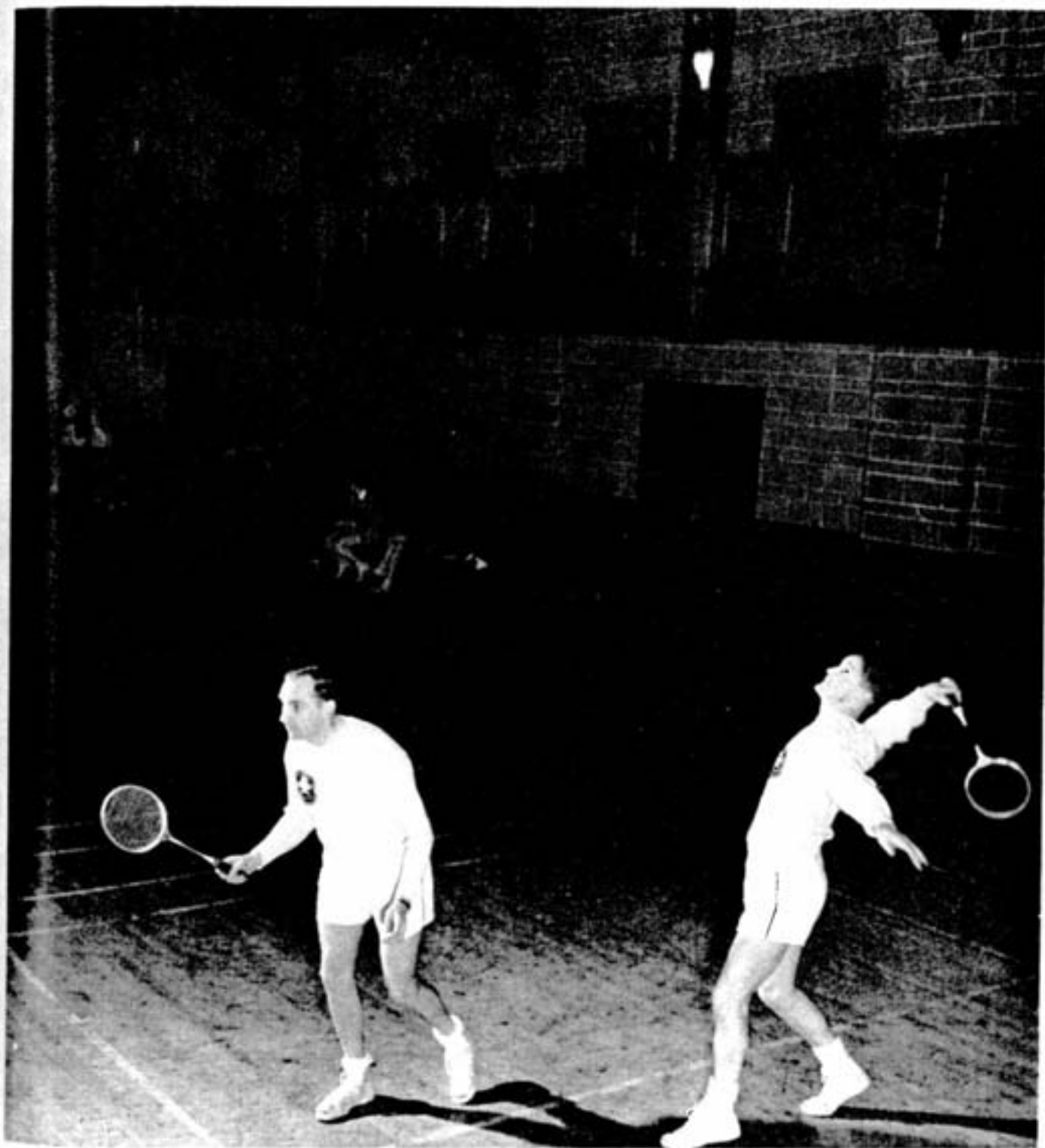


INCO TRIANGLE

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Myers and Nadeau, Champs of the North (STORY ON PAGE 16)



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Don M. Dunbar, Editor.

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A BRIEF REVIEW OF Smelting Methods in Sudbury District

Milestones in Matte Production

The tender early years of the industry were plagued by problems in treating the strange and complex Sudbury ores, problems even more formidable and baffling than those encountered in outlining and mining the raw material. One of the first and most vexing, of course, was the separation of the copper and nickel.

The first shipment of ore from the Sudbury District to the Orford Copper Company in Bayonne, New Jersey, triumphantly dispatched by S. J. Ritchie's infant Canadian Copper Company in 1887, smelted into a useless pale white metal. Then Colonel Thompson of the Orford Company made the startling discovery that it contained nickel. The future of the Sudbury District hung in the balance while feverish efforts were made to solve the metallurgy of copper-nickel separation. Eventually, to the vast relief of all concerned, Thompson evolved the nitre cake or Orford process.

Meanwhile at Copper Cliff a smelter was constructed and Number 1 furnace was blown in on December 24, 1888, treating ore from the Copper Cliff Mine. The ore was first roasted in heaps to oxidize as much iron and sulphur as possible, but the matte produced was only about 35 per cent copper-nickel with 40 per cent iron — not a result to send the pioneers into paroxysms of delight, but certainly a good start.

Weird and wonderful was operation of the early water-jacketed blast furnaces, at which men worked unceasingly day and night to make repairs in tap-holes or jackets and, at every tap from the settler, faced a barrage of explosions before which only the bravest did not quail.

Production wrinkles were slowly ironed out and during 1890 two furnaces smelted 34,635 tons of roast ore and 1,520 tons of green ore, obtaining 7,863 tons of matte. Further progress was recorded in January of 1892 when the first run was made with a small bessemer plant. The quality of matte was not at all to Thompson's liking, however, and much effort and money was expended over the next few years in attempts to turn out a better feed for the Orford refining process.

An important milestone in the growth of the industry was passed in 1900 when Mond Nickel Company of England purchased mines and erected a smelter at Victoria Mines to capitalize on the carbonyl process of refining nickel originated in 1889 by Dr. Ludwig Mond. This company also treated heap-roasted ore in blast furnaces and acid converters to produce an 80 per cent bessemer matte which was shipped to Clydach, Wales, for refining.

When the Canadian Copper Company and the Orford Copper Company, along with other interests, merged in 1902 as the International Nickel Company, long-needed plant rehabilitation and improvement was made possible for the first time by the substantial new capital resources.

Turntable Arrangement for Hoists



All but six of the 50 new 125-h.p. slusher hoists slated for installation in the caving program at Creighton mine will be mounted on turntables such as the one shown above. The hoist is set up between two concrete walls in the centre of a long slusher drift. With the aid of the small tugger hoist mounted on top of it, it can readily be turned to slush ore from either half of the drift into one of the two openings leading to the ore pass below it. Over three tons of ore, which slides into the drift through boxholes extending from the mining area above, is moved at each pass of the 72-in. scraper pulled by the hoist.

Change to Basic Converters

The clay and quartz lining of the early acid converters, rammed in to a thickness of about 18 inches, lasted only some 18 hours and produced but 5 tons of bessemer matte from furnace matte of 30 to 35 per cent copper-nickel grade. Converter slag at first had been cast in molds and re-smelted in blast furnaces to recover the metals it contained. This practice was abandoned in favour of pouring the slag liquid into the blast furnace settlers to avoid the expense of re-smelting. The loss of metals in the blast furnace settler slags, however, was proportional to the grade of matte, making it desirable to operate with low matte grade. But the operation of the acid converters was made considerably more expensive by the use of the lower matte grade since the lining of the converter was the only source of the flux required for removal of the iron from the matte. These considerations led International Nickel to discard their 10 acid stands in favour of 5 basic converters to which siliceous flux was added, first through the mouth of the converter and later with a Garr gun. The first basic converter was blown in in March of 1911. When Mond Nickel built its new plant at Coniston in 1913, basic converters were installed there too.

Handling of Fines

In the early operations fine ore and fine dust caused considerable difficulty in the smelting operations. Fines were handled by

placing them on the tops of the roast heaps where they served partly as a means of controlling the rate of burning and at the same time were partially fused or sintered into lumps which could be smelted in the blast furnaces. However, the amount of fine material was too often greater than could be handled in this way. Of the two major methods available for smelting fine material firmly, one, reverberatory furnace smelting, was chosen by International Nickel, and the other, sintering and blast furnace smelting, was adopted by Mond. The first successful use of pulverized coal firing of a reverberatory furnace was developed by Inco about 1910.

Electrolytic Refining

The stature of Ontario's nickel industry made a substantial gain in 1918 with the construction by Inco of a nickel refinery at Port Colborne. The process there finally evolved into a two-stage Orford treatment followed by electrolytic refining; patents for the latter had been obtained by Inco when it purchased the assets of the defunct British America Nickel Corporation, whose enterprise at Murray Mine was doomed to failure.

The End of Heap-Roasting

The next major development came in 1929 with the merger of Mond into Inco and the construction at Copper Cliff of a new plant which included an 8,000-tons-per-day flotation mill. Both Mond and Inco had done ex-

(Continued on Page 6)

Sudbury District Smelting Scenes 60 Years Ago



These two photographs of smelting operations in Sudbury District 60 years ago are a striking comparison with the huge plants of today. Top picture shows the first roast yard at Copper Cliff, located beside the Copper Cliff Road on the present site of the slag dump. Ore from the Copper Cliff mine was brought to the roast yard in slide-dumping "jimmy" cars (one is seen atop the trestle) and piled on 3-foot heaps of cordwood, which were then set afire. After a long period of roasting to drive off sulphur, the ore was gathered up and taken to the blast furnaces at the first smelter, which was blown in on December 24, 1888. This picture is dated 1889 or 1890.

Below is a view of the blast furnace house and slag dump at Murray Mine in 1891 or 1892, when it was operated by the H. H. Vivian Co. of Swansea, Wales. They had tested the quality and character of the Sudbury ores in their Swansea plant. They bought the Murray property from the patentees and began mining in 1889. In September, 1890, the smelter was blown in; a second furnace was added a year later and a third in 1892. The Vivian operations closed down in 1894. In the small pots seen at the right of the picture slag was wheeled from the smelter and dumped on the creek bank.





Igniter Cord in Thorough Trial At Inco Mines

(PICTURES ON PAGE 4)

Now under extensive trials in drift driving in Inco mines is a new device called igniter cord whereby a blaster need remain at a loaded face only long enough to light a single fuse, instead of having to light the fuse in each drill hole separately.

Igniter cord is on trial at Creighton and Frood-Stobie mines, and is slated for study in April at Garson and Leveck mines.

How It Works

All fuses in a loaded face are connected to the igniter cord in the order in which it is desired to detonate the holes. When lit the igniter cord burns along its length with an external flame at the zone of burning. The flame, usually short and quite hot, in turn lights the safety fuses in rotation. The type of cord on trial at Inco mines burns at approximately 16 to 20 seconds per foot, and is designed to meet the conditions encountered in development rounds or locations where the holes are drilled relatively close together. Another type of cord with a burning speed of approximately 8 to 10 seconds per foot is designed for use in conjunction with safety fuse in achieving rotation firing on stope breasts where the holes may be collared from two to four feet apart.

The chief aim in the development of igniter cord was the safety advantage gained through having to light only one fuse. This is particularly desirable where the path of retreat from the working place is difficult and time-consuming, or where staging has to be removed. With the use of igniter cord it is possible to delay the actual lighting of the round for a considerable time by employing a single fuse of sufficient length as a "master fuse" so that the igniter cord circuit is not lit until after everyone has reached a place of safety.

The safety fuse is attached to the igniter cord by means of a connector, a shell of the same shape and size as a No. 6 blasting cap but made of a different colored metal, with a composite ignition charge consolidated under pressure. A slot is provided near the closed end in which the igniter cord can be placed; the slot is then crimped by pressure on the bottom of the connector to hold the cord securely.

Pictured in Slusher Drift

Photographs on the opposite page showing the use of igniter cord were made in an 8 ft. by 9 ft. heading in a slusher drift on 1,000 level at Frood-Stobie mine. The round of 35 holes has been drilled off and loaded; the safety fuse used has connectors attached to it.

In the first picture Mike Matijevich, a well-known figure and expert miner in the Frood section, where he has been employed since 1939, is connecting up the fuses to the igniter cord in the sequence he wants the holes to detonate.

Picture No. 2 shows the round of holes completely connected up, just prior to lighting. A study of the hookup clearly shows the firing order, starting from the cut and

THE PRACTICAL MIND

Little Mary was being told about prayers. They were explained to her as being like telegrams to God. "Is that why we send them at night?" asked the child, "to get the cheaper rate?"

Democracy is something we must always be working at. It is a process never finished, never ending. And each new height gained opens broader vistas for the future.

—Edmund DeS. Brunner.

helper holes at lower centre.

The simple method of attaching the safety fuse to the igniter cord is shown in the next three pictures. In No. 3 Mike holds the connector and cord; in No. 4 the cord is in place in the connector slot; in No. 5 the

bottom of the connector is pressed against the face, crimping the cord firmly in position.

In No. 6 Mike touches a match to the end of the igniter cord, in one move actually lighting a total of 35 holes which will blast in the proper order.



Four wild Canada geese, seen here with a pair of the domestic variety, have been brought from the Jack Miner preserve at Kingsville to join the reception staff at Fielding's game sanctuary on Kelly Lake. And how they can honk!

Wild Geese New Permanent Guests at Fielding Sanctuary

New star boarders this summer at the Fielding game sanctuary on Kelly Lake will be four Canada geese which arrived recently from the famous Jack Miner haven for wild fowl near Kingsville, Ont.

The Fielding sanctuary is a natural stop-over for geese on their flight from Kingsville to James Bay, and the Fielding brothers are determined to make their 2,500-acre preserve the last word in flyway motels.

Fields have been cross-cut with water-filled ditches and sown to grain. More than 1,500 evergreens were planted last year for shade, and another 7,000 will be planted this year. There'll be all the comforts of home for any kind of wild fowl.

The four Canada geese, nerves in their wing tips paralyzed so they can fly only a short distance, will be permanent guests at the Fielding preserve. They'll act as a welcoming committee to the great flights travelling back and forth from the far north

and, once the news of their hospitality spreads, the place is sure to get an A-1 rating from the Duncan Hines of gooseedom.

Sometime this summer snow geese and blue geese brought from the Kingsville area will also be added to the reception staff. Eleven wild mallard ducks, their wing power curbed, last year joined the sanctuary's permanent population which includes partridge and pheasant, and had among their guests a pair of wild swans, the first time this type of bird had nested on the property in 26 years.

Nucleus of the preserve, which is fully licensed and approved, was the old Fielding homestead. Frank Fielding, of the Inco transportation department at Copper Cliff, who is associated with his brothers Cliff and Carmen in the big project, says the sanctuary realizes a dream of his father, who was one of the district's first ardent conservationists. Farmer-neighbors of the sanctuary are giving wonderful co-operation in protecting the birds from over-eager hunters, he says.



Eleven wild ducks became guides at the Fielding sanctuary last year. They're seen in their winter quarters at Frank Fielding's place in Copper Cliff. As decoy hosts the mallards brought hundreds of ducks to enjoy the food and hospitality at the preserve in 1951.

Levack Air Cadet Group Off to Flying Start



Sponsored by Levack branch of the Canadian Legion and affiliated with No. 200 (Sudbury) Squadron, Levack's group of air cadets was organized in January and is showing steady progress at its semi-weekly meetings. Chief instructor is Nelson Allen, who is assisted by Harold Gillis, Gene Wrixon, and Cliff Piprell; they have been promised whatever air force equipment they require to carry on the full air cadet training program. In the picture are: front row, left to right, D. Moulton, F. Delorme, E. Riutta, L. Dusick, Harold Gillis, J. Gallant, R. McNamara, W. Bushnell, and G. LeFebvre; back row, S. Snider, P. Peroux, L. Laberge, T. Armstrong, J. Compeau, Nelson Allen, G. Picard, M. McAteer, C. Weslake, L. Ethler, R. Gosselin.

A BRIEF REVIEW OF Smelting Methods in Sudbury District

(Continued from Page 2)

tensive experimenting with selective flotation. In 1931 the first production of blister copper by direct smelting from Sudbury ores was recorded. Nickel concentrates were roasted and reverberatory-smelted, and the matte was converted to about 79 per cent nickel and shipped to Port Colborne. On the smelter end the new plant consisted of 5 reverberatory furnaces, each with six superimposed Nicholls-Herschhoff roasters and 8 basic-lined converters. Part of the blast furnace plant was shut down and roasting of ore in heaps became a thing of the past, to the joy of sulphur-breathing denizens of the district. At the Coniston smelter a larger sintering plant was built which roasted and sintered fine ore for the blast furnaces, and all the coarse ore used there was charged green.

The directly-produced copper from the Copper Cliff smelter was shipped as cakes, and later in liquid form in hot metal cars, to a copper refinery built in 1939 1½ miles from the smelter.

Falconbridge Nickel Mines came into the picture in 1939 when their first blast furnace was blown in. The plant now consists of a mill with a capacity of 1,800 tons per day, producing a bulk concentrate which is roasted and sintered on Dwight-Lloyd machines and then smelted along with high-grade green ore in 2 blast furnaces. The blast furnace matte is converted to 80 per cent copper-nickel matte which is shipped to the refinery in Norway.

In 1931 the Orford process part of Inco's nickel refining was moved to Copper Cliff and about 1937 treatment of the bessemer matte in liquid form as it came from the converter to the first stage of the Orford process was developed in place of casting and re-smelting in a cupola furnace; this, along with other improvements, resulted in cleaner and lower-cost copper-nickel separation.

The Orford Process Passes

The Orford process, which had served so well for many years in the production of the major portion of the world's nickel requirements, yielded to the march of science in the next major development in the industry. A process was developed by International Nickel for the separation of copper, nickel, and precious metals in matte by subjecting the matte to controlled cooling, flotation and magnetic separation. The matte flotation operations commenced in September, 1948, and the change from the Orford process was finally completed in July, 1949. The entire output of nickel at Copper Cliff is now handled by this new process. Nickel oxide sinter produced contains approximately 75 per cent nickel and is a densely sintered nodular nickel oxide which has been developed particularly for use in the manufacture of alloy steels.

With the steady increase in the quantities of nickel required, and the advisability of developing and using lower grade ores, the reduction of losses became of increasing importance. Mill tailings at Copper Cliff have been reduced in their copper-nickel analysis by half during the past 10 years, without appreciable change in the percentage of rock discharge. Smelter losses have also been reduced by increased and improved control of furnace slags and Cottrell precipitators on the roaster and converter gases.

Development of Flash Smelting

Another development of unusual interest is the flash smelting of nickel and copper sulphide concentrates with oxygen. After extensive research and pilot unit operation,

an oxygen plant and initial flash smelting copper furnace are now under construction at Copper Cliff. The new process will permit a considerable decrease in coal requirements and, at the same time, will serve both to increase the production of sulphuric acid and enable the production of liquid sulphur dioxide from furnace exhaust gases at the neighboring plant of Canadian Industries, Limited.

This, and thorough consideration of methods which would permit the output of high grade by-product iron ore, represent further forward steps in the maximum utilization of Sudbury District ores.

In its initial four months of operation the first blast furnace at Copper Cliff less than 64 years ago produced 170 tons of nickel. During the past 10 years the Ontario nickel industry's sales have exceeded 100,000 tons of nickel per year.

ON DRIVING WITH THE CAR

Here's an excerpt from an old Japanese digest of traffic laws and ordinances.

"At the rise of the hand of policeman, stop rapidly. Do not pass him by or otherwise disrespect him.

"When a passenger of the foot hove in sight, tootle the horn trumpet to him melodiously at first. If he still obstacles your passage, tootle him with more vigor and express by word of mouth the warning 'Hi, Hi'!

"Beware of the wandering horse that he shall not take fright as you pass him. Do not explode the exhaust box at him. Go soothingly by or stop at the roadside till he pass away. Give big space to the festive dogs that make sport on the roadway. Avoid tanglement of the dog with your wheel-spokes. Go soothingly on the grease-mud, as there lurk the skid-demon. Press the brake of the foot as you roll around the corner to save the collapse and the tie-up."

Opportunity is generally more easily recognized going than coming.

INCO FAMILY ALBUM

On its regular monthly roundup of happy faces in cosy places, the Triangle camera was lucky enough to focus on:

(1) Mr. and Mrs. George Morrison (Coniston) with Barbara, 4. (2) Mr. and Mrs. Roderick MacKinnon (Copper Refinery) with Glen, 3; Bonnie, 2, and Carol, 10 mos. (3) Mr. and Mrs. R. J. MacNeill (Copper Cliff Geological) with Donald, 4, and Joanne, 2. (4) Mr. and Mrs. John Todhunter (Creighton) with Richard, 9 mos., and Charles, 2. (5) Mr. and Mrs. Bill McSwain (Port Colborne) with Margaret, 10, Bryan, 4, Billy, 3, Ann, 5, Tim, 2, and Norma, 12. (6) Mr. and Mrs. Bob Brydges (Frood-Stobie) with Diane, 7, Bruce, 21 mos., Lorraine, 18, and Betty Lou, 12. (7) Sgt. and Mrs. Bert Conley (Levack) with Marlene, 11, Pat, 12, Jimmy, 14 mos., and Betty, 9.







Striking Talent In "Festival of Nations" Fete

Twelve different nationalities were represented in the "Festival of Nations" program staged at the Legion Memorial Hall in Sudbury as a Brotherhood Week feature by the Sudbury District Council of Friendship.

A more impressive demonstration of the fruits of a neighborly attitude toward recent immigrants to Canada would be difficult to imagine.

In songs, instrumental selections, and interpretive dances the various national groups gave of their best to make the program an outstanding success in every way. They obviously enjoyed the chance to show their appreciation of the kindness which had been extended to them, and the parade of talent gave the capacity audience the feeling that Canada's cultural background is being greatly enriched by its new citizens from the older countries.

On the day following the "Festival of Nations" program a tea and display of handiwork was sponsored by the Council of Friendship in the Legion Hall, and many hundreds came to admire the beautiful exhibits proudly shown by the different nationalities. Our country, with so much to offer, obviously gains much in return from these people who are so eager to embrace the benefits and responsibilities of full citizenship.

Some of those taking part in the "Festival of Nations" production are seen in the accompanying photographs:

In the top picture on Page 8 is the Estonian group of dancers; The accordionist is E. Reinsoo and the attractive young women are Mrs. Ott, Mrs. Koverik, Miss Sylvia Bohn, Mrs. Pikki, and Mrs. Urve Vist; men in the front row are Messrs. Hansman, Torpel, Poldre, Saar, and Lausmaa.

In the centre group is the Croatian string ensemble composed of: back row, Lilly Severinac, Joe Temac, Joe Furach, John Matjevic, Danica Severinac, Annie Zvonkovich; centre row, Carl Borkovich, Gloria

(Continued on Page 16)





Music Festival Again Brilliant Demonstration

With a total of 547 entries involving almost 4,000 contestants, the seventh annual Sudbury and District Music Festival gave another great lift to the community's cultural development and demonstrated the far-reaching progress that has been made. The keen interest and appreciation of the general public was reflected in the number of admissions during the week's competitions — 7,500. More than 1,000 attended the "Highlights" program in the Inco Club which wound the Festival up in a paeon of musical splendour.

The Sudbury Kiwanis Club and the local branch of the Ontario Registered Music Teachers Association, joint sponsors, once again earned the gratitude and esteem of both performers and public for providing this unparalleled annual musical experience. J. C. Bischoff was chairman of the committee.



which so efficiently handled the vast amount of organization detail.

Through the generosity of various donors more than \$1,000 was received for the Festival scholarship fund, and \$120 was given toward the cost of promotion, besides many handsome trophies.

A few of the artists taking part in the "Highlights" program are seen in the layout on the opposite page:

In the top picture is the smart little rhythm band of children 8 years old and under from Creighton Mine Public School.

Singing a medley of French-Canadian songs, the male choir seen in the centre picture scored a tremendous hit. The vigorous conductor, Maurice Gravelle, won high praise from adjudicator Alec Redshaw during the Festival and so did his gifted ensemble.

A happy grin lights up George Stelmack's face as (lower left) he receives the \$250.00 Inco scholarship, top prize of the Festival.

This brilliant 12-year-old pianist also won the Dr. D. W. Stewart trophy for junior piano competition and the O.R.M.T. trophy for piano competition Grades 6 to 10; on top of that he shared in the capturing of the Kiwanis shield for piano trio composition under 15 years, and the Sudbury Y's Men's trophy for piano duets.

Last year's winner of the Inco scholarship, Ella Minkila, not only won the LaPrance and Sons trophy for intermediate piano competition but also came within an ace of taking senior honors as well. She is 13.

Attractive Nicolene Haggerty (lower centre) was a double trophy winner at the Festival, taking the C. A. Durkee trophy for junior vocal solo competition and the J. B. Ducharme shield for the best school vocalist.

A tiny charmer on the Highlights program was 5-year-old Sheila Vance, lower right, whose score of 91 in juvenile piano competition won her the Betty Meakes trophy.

Dates Are Set for First Aid Contests

Teams emerging victorious from elimination contests now underway at Inco plants in the Sudbury District will compete in the semi-final First Aid competitions in the main auditorium of the Employees Club in Sudbury on March 25 and 27.

The representatives of the surface plants, Copper Cliff, Copper Refinery, Open Pit and Coniston will compete for the D. Finlayson trophy on March 25 at 7:15 p.m. The teams representing Frood-Stobie, Creighton, Garson, Levack and Murray mines will meet on March 27, also at 7:15 p.m., for the H. J. Muts trophy.

The two winning teams in these semi-finals enter the big showdown for the R. D. Parker shield and the Inco inter-plant First Aid championship at the Employees Club on Thursday, April 3, at 8:00 p.m.

Judges of both oral and floor tests in all the contests are members of the Company's medical staff. Arrangements are in the hands of Tom Crowther of the safety department.

VERBS IS FUNNY

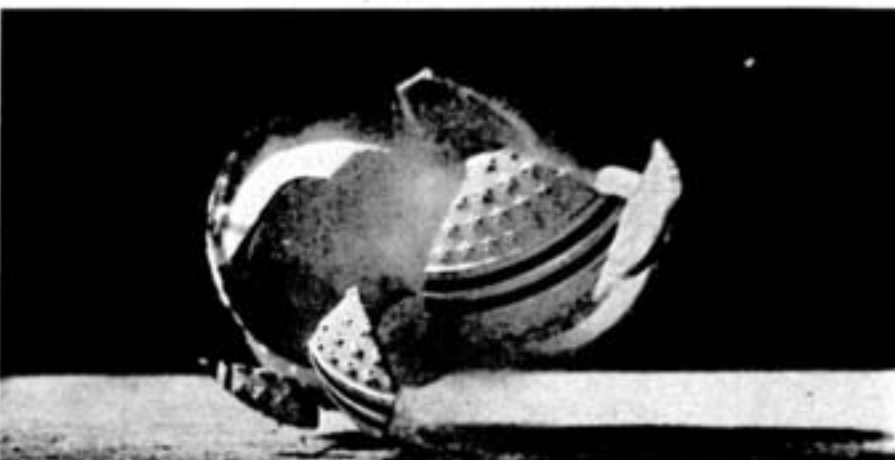
A boy who swims may say he swum,
But milk is skimmed and seldom skum
And nails you trim; they are not trum.
When words you speak, these words are spoken.

But a nose is tweaked and can't be twoken,
And what you seek is seldom soken.
If we forget, then we've forgotten,
But things we wet are never wotten,
And houses let cannot be lotten.

Tho' things one sells are always sold,
But fogs dispelled are not dispoled,
And what you smell is never smold;
When young, a top you oft saw spun,
But did you see a grin ever grun,
Or a potato neatly skun?

—Manitoba School Journal

Nickel is Key to Coping with Intense Cold of Liquefied Gases



Chilled to -100°F . in dry ice, a rubber ball loses its bounce, shatters like a Christmas tree ornament when struck. An electronic flash was tripped by microphone 1.035 milliseconds after contact to take this picture.

In last summer's heat spell in the southwestern U.S., a truck carrying liquefied petroleum gas met a diamondback rattlesnake coiled arrogantly in the middle of the highway. The driver stopped, unscrewed a hose and squirted gas on the reptile.

Instantly, on pavement that would fry eggs, the coiled snake was quick-frozen, rigid and ice-brittle in mid-rattle. The driver leaned down, broke off the head and threw it away, broke off the rattles and pocketed them, then drove on. The sub-zero cold of liquefied gases makes natural rubber rigid as iron, freezes an orange hard enough to hammer nails, makes

many metals brittle.

If it did this to all metals, nothing could safely hold gases compressed to a liquid at 300°F . or colder. Even a slight knock might fracture the container, release their intense pressures and cold.

The key that unlocks the problem is nickel. As an alloy in steels, it decreases their tendency to embrittlement at lower temperatures. And in the Inco Nickel Alloys—Monel, Nickel and Inconel—it furnishes materials which increase their tensile properties without suffering a corresponding decrease in ductility at sub-zero temperatures.



Designed to withstand internal pressure of 4,100 pounds per sq. in., a thick-walled Monel chamber stores helium which has been cooled in inner coils by liquid air and cold hydrogen vapors. The outer tank contains liquid hydrogen, which exposes the Monel chamber to temperatures below -435°F . The helium is liquefied as it is valved out of this apparatus.



Dos-a-dos on the Corners All!

A la main left and Grand Chain all . . . Grand Chain all!

In ever-increasing numbers people are taking part in a revival of the square dance. There's a variety and a spirit of wholesome fun at a real down-to-earth square dance party that just can't be matched. When Viscount Alexander staged one at Ottawa last year for Princess (now Queen) Elizabeth and her husband, the revival swept England. Passengers on the Queen Mary and other great liners now find it one of the most popular forms of entertainment.

Pictures in this layout were made at the Copper Cliff Club during one of a highly successful series of square dances arranged by Tom Peters, chairman of entertainment. The caller is Johnny Cook, and the orchestra is Joe Leclair's.

So it's on with the dance . . . Birdie in the Cage . . . Grapevine Twist . . . Darling Nellie Gray . . . Red River Valley . . . Inside Arch and the Outside Under . . . and not a stiff shirt in the crowd!



Two Veteran Security Officers Pensioned from Creighton Force

Two universally respected members of Inco's security branch, both members of the Creighton detachment, have retired on pension. Sgt. Dennis Brennan with credited service of over 22 years and Sgt. Tom Campbell with more than 35 years to his credit.

There was an attendance of 90 at the enjoyable banquet and program given in Memorial Community Hall, Copper Cliff, in honor of the two police veterans. On behalf of their fellow officers on the Inco force, Asst. Vice-President Ralph D. Parker presented each of them with a chime clock and congratulated them on their splendid records. In a brief address Crown Attorney E. D. Wilkins spoke of the faithful and intelligent manner in which they had always carried out their duties.

In another presentation Detective-Sgt. Bert Crawford received a desk set and the good wishes of all from Chief A. F. Runciman on his transfer to the Port Colborne detachment of Inco's security force.

At Smeeth in County Kerry, 20 miles southwest of Killarney and 60 miles from Tralee, Dennis Brennan was born the son of a farmer, and the rich Irish brogue has never left his tongue. He worked on the farm until he was 22 and then was off to Dublin to join the Royal Irish Constabulary. It was a proud day indeed when he graduated as a constable after six months of rigidly disciplined training. He spent 14 years in the force, the last 10 years of it in Belfast, and when it was disbanded in 1922 he received a certificate of "very good" character.

He went to London to study police methods there, and then in the fall of 1923 set sail for Canada. In Montreal he chanced to meet Chief of Police Fyvie of Sudbury, who promptly engaged the strapping young Irishman.

When Dennis Brennan arrived in Sudbury there were two sergeants and six constables on the force. There was little difference in the routine of police work from what he had known in Ireland except for enforcement of the O.T.A., which he found somewhat puzzling. After three years in Sudbury he transferred to the Neelon-Garson township police. In 1929 he joined the Inco force and was stationed at Creighton; he was placed in charge of the detachment when Sgt. Robert Reedy was killed in a car-train crash in 1946.

Frequent celebrations which started innocently enough but often developed into wild and woolly donnybrooks in the early morning hours made life interesting for the police at Creighton in the earlier days of the camp. It is said that one night Dennis Brennan arrested and jailed an entire house party, every member of which was thoroughly kinned up and grimly intent on scalping the fellow next to him. Coolly and quietly the sergeant marched them away to the hoosegow, a pair at a time, until the little lockup was bulging at the seams.

He had only one brush with serious crime in all his days at Creighton, however, and he is careful to point out that the accused was not a resident of the mining camp but came from Sudbury. The incident occurred in 1936. Armed with a straight-edged razor the Sudbury man arrived by taxi with the intention of letting the light into a Creighton miner's throat. Answering a call Sgt. Brennan hustled to the scene in time to disarm the would-be murderer before he perpetrated the foul deed.

Dennis Brennan was married in 1925 to Miss Larin Sydonie of Sudbury and they have the following family: Helen and Betty, who are employed in Sudbury; Michael, who works at Creighton; Margaret, at school; all of whom reside with their parents; Kathleen, who as Sister Claudia is a member of

the convent teaching staff at Sault Ste. Marie; Dennis Jr., who enlisted in the Canadian Army last December and is stationed at Ipperwash with the Princess Pats.

In contrast to Sgt. Brennan, who started police work at 16, Sgt. Tom Campbell was 29 when he first donned a uniform as a member of the Inco force stationed at Creighton Hill in March of 1916. Six years later he was transferred to Creighton, where he remained until his retirement. He was promoted to the rank of sergeant one year after his arrival at Creighton.

Tom was born at St. Stephen, N.B. His father was a contractor and lumber camp operator, and young Tom soon developed a love of the outdoors. At 16 he went lumbering down in Maine for three years, then headed for the camps along the Gatineau. He came up to Wahnapiatae and drove the stage to French River during the first year of construction on the Sudbury-Toronto line of the C.P.R.; Paddy Furlong had the stage contract and McKenzie and Mann were the railway contractors.

Tom remained in the Sudbury district to work for such lumbering concerns as Graves & Bigwood, Victoria Harbor, and Beck Bros. He was often foreman on the log drive which started in the creeks above Webbwood as soon as the ice went out and followed the Spanish river right down to the Spanish boom, arriving there early in August.

A companion of those lumbering days was Archie Godfrey, well-remembered Inco rigger boss who has been retired on pension for several years.

Like Sgt. Brennan, Tom Campbell has found Creighton a quiet, law-abiding centre, particularly in more recent years, but he recollects some hectic sessions in the earlier days of the camp when the frontier spirit broke loose. He still marvels at the stamina of the men who took part in those midnight melees. One miner, he remembers, had a total of 49 stitches sewn into his hide over a three-month period. Another, who had been walloped over the head with a stick of birch, sat stoically silent one night while Dr. Boyce industriously plied the needle and put in 100 stitches; that was



Sgt. and Mrs. Tom Campbell.

a five-hour session in which Tom acted as nurse. After a couple of hours' sleep the hemstitched hero was around town again, ready to reopen hostilities with the hombre who wielded the wood.

On Christmas Day of 1910 Tom was married to Miss Ruth McAdam of Goderich. Their daughter Bernice is Mrs. Percy Keirle of Lively and has two daughters; their son Glen is a salesman travelling out of Ottawa.

Mr. and Mrs. Campbell, both ardent devotees of fishing and hunting, have bought a home at Nairn for the winter months, but summer will find them at their camp at Birch Island.

TOO MANY LANDINGS

Rastus had just been presented by his wife with his 12th child. As he was escorting the doctor to the door a duck passed by. "Whose duck is that?" asked the doctor.

"Dat ain't no duck," said Rastus with a sigh. "Dat's the stork with its legs worn down."

The whole secret of life is to be interested in one thing profoundly and in a thousand things well.—Hugh Walpole.



Sgt. and Mrs. Dennis Brennan and four of their family.



Wilf Lepine's team of hounds and Great Danes got right down to the business they obviously knew very well. Picture shows them as they streaked away from the starting line, the famous international musher pounding along behind them on foot.

Lepine's Team Shows Class in Chelmsford Derby

A crowd of 5,000 people saw Wilf Lepine of Quebec City send his lean seven-dog team of hounds and Great Danes galloping over the finish line with a 44-minute victory margin in the second annual Chelmsford dog derby.

The novel and colorful event, sponsored by the enterprising Chelmsford Valley Chamber of Commerce, drew people from all over the district. The main street of Chelmsford, where the race started and ended, was lined solidly with spectators two and three deep, and other large groups assembled at vantage points along the 25-mile course.

Lepine, famous musher who had won the International dog derby at Ottawa two weeks previously, clearly showed his class. His dogs were in excellent condition and beauti-

fully trained. In contrast to one or two of the local teams, they took off in a beeline from the starting post as if the sherriff was after them.

Winner of last year's derby, Tony Landry of Azilda, made a great showing against the international star with his splendidly matched team of purebred Siberian huskies, and finished second. In third place was another handsome husky hookup driven by Dan Crampton of Warren. Total prize money for the five teams in the race was \$1,000, of which Lepine received \$400 besides the trophy presented by Rev. Lionel Seguin.

The 50-mile race was run in two heats on succeeding days. In their first trip over the course Lepine's dogs averaged almost 13 miles per hour.

There were 12 entries in a junior derby organized to spur interest in dog-racing among teen-agers. Winner was 14-year-old Rheal Seguin of Blezard Valley, whose pair of cross-bred collies covered the four-mile course in 16 minutes and 22 seconds.

SIX GOOD REASONS

Pat Murphy attended a plant safety meeting. The boys had been given some printed instructions and the Safety Man wanted to check results.

"Pat," he said, "can you give me six good reasons for safety?"

Now Pat wasn't up on his reading but he was quick on the comeback.

"Sure," he replied, "the four little Murphys, the wife and myself."



Tony Landry's beautiful purebred Siberian huskies made a fine show as they waited for the starting signal. At least half the crowd of 5,000 spectators were youngsters who got a great thrill out of the smoothly managed dog derby.

Former Olympic Skier Stars in Copper Cliff Race



Covering the tough 10-kilometer course in 36 minutes and 43 seconds, O. Haukioja took top honors in the seventh annual cross-country races staged by the Finnish Lutheran Church of Copper Cliff. Twelve of the 15 entries, shown above, finished the gruelling course, the last man taking 46 minutes and 17 seconds. A former member of the Finnish Olympic team, Haukioja (No. 14) arrived in Sudbury last summer. Sally Manninen won the 2-kilometer ladies' open race in 9 minutes and 58 seconds. There were also events for boys and girls in the highly successful meet, which was handled by a committee of 10 headed by W. Kalilo. Coffee and lunch were served in the church hall during the afternoon.

N.O.C.A. Grand Aggregate Winners



Art Silver (second from right) skipped his Copper Cliff Curling Club rink to Grand Aggregate honors and the Carmichael-O'Brien Memorial trophy in the 1952 N.O.C.A. bonspiel with a record of 12 wins against two losses. Other members of the team (from the left): Bob McLeod, Jim Dewey, and Steve Kuzmaski.

Cliff Stanemen Cop 4 out of 7 'Spiel Trophies

Four of the seven trophies at stake in the 1952 bonspiel of the Northern Ontario Curling Association were picked off by rinks representing Copper Cliff Curling Club. It was one of the strongest showings ever made by one club in the long history of the event.

Several well-known Inco stanemen were members of other teams reaching the finals in the highly successful 'spiel. Results in the seven events were as follows:

PRESIDENT'S CUP

Copper Cliff — Bob McAndrew, skip; Jack

Holtby, third; Gord Harry, second; George Burns, lead.

Sudbury Granite — Don Groom, skip; Don James, third; Ray Cook, second; Manse Robinson, lead.

SILVER FOAM CUP

Copper Cliff — Art Silver, skip; Jim Dewey, third; Steve Kuzmaski, second; Bob McLeod, lead.

Copper Cliff — Joe MacDonald, skip; Guy Hashey, third; Doug Gathercole, second; Ray Allen, lead.

COCHRANE-DUNLOP TROPHY

Copper Cliff — Gordon McLean, skip; Red Hillen, third; Ted Harber, second; Jack McConnell, lead.

Sudbury Granite — Alex Penner, skip; Ed Bent, third; Don Young, second; Joe Harrison, lead.

McKELLAR TROPHY

Sudbury Granite — Bert Cooper, Jr., skip; Elymas Carmichael, third; George McCormack, second; Bert Cooper, Sr., lead.

Sudbury Granite — Cliff Edey, skip; Roy Johnson, third; George Moore, second; Bill Toleck, lead.

ASSOCIATION CUP

Sault Ste. Marie — Lance Watson, skip; Bill Norman, third; Harvey Snell, second; Jim Jourdin, lead.

Sudbury Granite — Hugh Munro, skip; Vern Johnston, third; Charlie Bibby, second; Arnold Chisnell, lead.

SWEET CAPORAL TROPHY

Sudbury Granite — Milt Moran, skip; Elwood McCrea, third; Bob McInnes, second; Herb Death, lead.

Chapleau — Tom Theriault, skip; Frank Swanson, third; Dave Valensky, second; H. Fortunato, lead.

CARMICHAEL O'BRIEN TROPHY

(Grand Aggregate)

Won by Art Silver's rink with 12 victories against two defeats. Tied for runners-up honors were Milt Moran, Granite Club, and Lance Watson, Sault Ste. Marie. Moran won the toss for the prizes.

Hughie Munro skipped a Copper Cliff rink which won the right to represent the N.O.C.A. in a three-way British Consols playoff to decide Northern Ontario's representation in the Canadian curling championships at Winnipeg. Pitted against Jimmy Guy of Kenora and Tom Ramsey of Kirkland Lake, Hughie failed to get going in the first day's play but gave an excellent account of himself in later matches. His rink was made up of Johnny McCreedy, Steve Kuzmaski, and Johnny Jurczyk. The N.O.C.A. colors were carried to Winnipeg by Jimmy Guy.

Art Silver proved that his N.O.C.A. Grand Aggie triumph was no flash in the pan when he skipped his rink to victory in the premier event of the annual Sudbury Motors bonspiel. With him were his brother Ron, Jim Dewey, and Bob McLeod.

JUST A BOY AT HEART

In the dark of night two safecrackers entered a bank. One approached the safe, removed his shoes and socks and started to turn the dial with his toes. "What's the matter?" asked his pal. "Let's open this thing and get out of here."

"Now, this'll only take a minute longer and we'll drive them fingerprint experts nuts."

A wise man is he who never blows his nose.

Three Titles to Nickel Belt in N.Ont. Tourney

The mother robin and her little line-up of fledglings sat on a telephone wire and watched the world beneath them.

Finally young Joe, the daring one of the family, became impatient. He took off and flew waveringly away, disappearing from sight.

After a long time Joe came flying back. The family could see that he was in bad shape. One eye was closed, one leg was bent, and his feathers were ruffled every which way. He barely made it to the wire.

"Why Joey," gasped his mother, "whatever happened to you?"

"Whew!" panted Joe. "Got mixed up in a badminton game with Myers and Nadeau."

No place for any but a seasoned and properly padded bird is a badminton match in which Gerry Myers and Harvey Nadeau (see cover) cut loose with the smashing play which carried them to the Northern Ontario men's doubles championship last month. Pitted against singles champion Gord Frech and Bill Plewman of the Soo in the finals, they staged a brilliant display of court strategy and footwork to win the deciding game 15-11. Their victory over such a formidable team was regarded as something of an upset, and their Inco Club supporters were tickled stiff with it. Both are members of the accounting department staff at Copper Cliff.

Edna Johnston and Stella Crawford repeated their triumph of 1950 when they won the Northern Ontario ladies' doubles title, defeating Colette Potvin and Sheila Keegan in an all-Sudbury final. The mixed doubles laurels went to Gord Frech and Jean McLeod of the Soo. Mary Terrell of the Sudbury Y easily bested the Soo's Helen Best for the ladies' singles championship. Gord Frech's men's singles crown was won after a torrid battle with Johnny Saganiewicz; although he turned the trick in straight sets, Frech had his hands full all the way.

In addition to the three championships, Nickel Belt players swept all five of the Northern Ontario consolation events. Winners were: men's singles, Arvo Nasl, Garson; ladies' singles, Rose Polano, Inco Club; men's doubles, Bub Jewett and Doug Pappin, Copper Cliff; ladies' doubles, Jean McCrea and Flo Johnson, Inco Club; mixed doubles, Gino Gonnella and Pat Staples, Creighton.

In a previous tournament the Nickel Belt badminton championships were decided as follows:

Men's singles, Harvey Nadeau; men's doubles, Ovide and Fritz Gauthier; ladies' singles, Mary Terrell; ladies' doubles, Edna Johnston and Stella Crawford; mixed doubles, Johnny Saganiewicz and Colette Potvin. In the consolation events results were: men's singles, Gerry Marshall; men's doubles, John DeMarco and Jimmy Kuzniar; ladies' singles, Rose Polano; ladies' doubles, Monica Coules and Rose Polano; mixed doubles, Jimmy Kuzniar and Pat McCrie.

Acknowledgement of the status of badminton in Northern Ontario sports was the announcement that the Ontario Badminton Association will hold its annual tournament in 1953 at Sudbury.

WISELY SAID

Happiness is generally a rebound from hard work.

Don't be carried too far by enthusiasm; you may have to walk back.

Institute Hears About New Mill



Sudbury branch of the Canadian Institute of Mining and Metallurgy had a big turnout the night Jim Lee (second from left above) asst. mill superintendent of Inco, gave the paper he presented early in February at the national convention of the institute at Ottawa. Well illustrated with slides, the paper fully described Inco's new concentrator at Creighton mine. Others in the picture, from the left: E. G. Stoneman, mill superintendent; J. C. Farlee, asst. general superintendent of mines and smelters, president of the Sudbury branch of the institute; Foster Todd, superintendent of Garson mine, vice-president of the branch.

Festival of Nations

(Continued from Page 9)

Celinscak, Joe Pintur, Mary Tomac, Ivan Celinscak, Ignac Severinac; front row, Tina and Sophie Leskovic, Mary Pintur.

A humorous touch was added to the program by a Danish group of four, plus two anonymous gents who impersonated a cow. This number, seen in the bottom picture on Page 8, was organized by Paul Schou, second from the left.

In the first picture on Page 9 are Irene Schvartzkopf and Louis Fajez, who performed a Hungarian dance. In the second picture are the Ukrainian dancers: the girls, E. Budzak, A. Marunchak, S. Shyluk, O. Hrycenko, D. Shulha, O. Holynsky, S. Rohozynsky; the boys, M. Haul, R. Formanec, and I. Kuryliw. Young Ronnie Formanec drew terrific applause for his solo efforts.

In the third picture on Page 9 are the Lithuanian dancers, who gave a particularly vivacious and colorful performance: the accordionist is Aleksas Kusinski, and behind him are Audrone Poderis, Nijole Indrullaitis, Mr. and Mrs. R. Bagdonas, and Mrs. Okilija Siemaska. The girls in the Chinese group, bottom of Page 9, are Shirley Young, Jane Kown, Margaret Lee, Sue Eng, Alice Kown, Betty Eng, and Pat Eng; the boys, Toy Sing Jung, Peter Lee, and Allan Wing Lee.

Other numbers on the splendid program were given by a Finnish choir, a group of French-Canadian songsters, a Scottish lassie and her piper, and a Polish vocalist. Master of ceremonies was George Thomson and convenors were Dr. A. E. Morgan and George Wilson; the general program convenor was Miss Gertrude Runnings.

The Sudbury District Council of Friendship, one of half a dozen organized to date in leading Canadian cities, was formed last September. As many as 25 different nationalities have been represented at its monthly meetings in the Legion Hall, at which attendance runs around 700 people. Chiefly concerned with giving a friendly welcome to newcomers to Canada and helping them over the hurdles of language and other difficulties, the Council is also seeking to channel them into groups where they may take up their favorite activities such as handicraft, chess, music, etc. A regular

feature of the meetings are addresses on the responsibilities of Canadian citizenship and how to go about qualifying for it. President of the Council is Dr. F. A. E. Starr, who became interested in this worthwhile work through the Canadian Legion; president ex-officio is Mrs. Starr, whose interest was aroused through her I.O.D.E. activities.

TWICE WINNER



Dénah Langille, daughter of Mr. and Mrs. Ivan A. Langille of Copper Cliff, again this year won the Edith Lehto shield and the Sudbury Lions Club silver medal for the best girl orator in the Nickel District. She will contest the zone finals of the Lions Club oratorical contest to be held at Little Current, and if successful will be sent to the Canadian National Exhibition at Toronto to take part in the finals, an honor she also won last year.

APPOINTMENT ANNOUNCED

R. L. Beattie, vice-president and general manager of Inco, has announced the appointment of G. A. Harcourt as assistant to the general manager.