

The Old Root Cellar



Published for all employees of The International Nickel Company of Canada, Limited. Don M. Dunbar, Editor.

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Dr. Thompson Has Brilliant Record With the Company

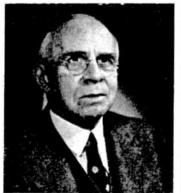
Dr. John F. Thompson has the affection of those colleagues whose good fortune it is to be more closely associated with him, and the warm admiration and respect of the Inco family as a whole.

His charming manner, deep solicitude for the welfare of all the employees, and brilliant success over the years in helping to shape the Company's destiny, partly explain the esteem in which he is held.

It is a pleasure for the Triangle to join other Inco employee publications in Great Britain and the United States in congratulating Dr. Thompson on his 50th anniversary with the Company, which he observed on July 17. We convey to him the sincerest wishes of everyone in the Canadian operations for his continued good health and happiness in the years to come. On leaving the School of Mines,

On leaving the School of Mines, Columbia University, where he took his B.Sc. and Ph.D. degrees and then became a metallurgical assistant, he joined the International Nickel Company in 1906 as a metallurgist. In this capa-

DR. JOHN F. THOMPSON



city he was engaged on the design and operation of the Company's first research laboratory at the Orford works in New Jersey where, in particular, he was responsible for developing the potentialities of Monel and malleable nickel.

He later became manager of the first technical department, the forerunner of International Nickel's famed development and research division. By 1921 he was already manager of operations and was responsible for supervising the construction and initial operation of the Huntington plant, which was erected for the production of non-ferrous alloys, particularly Monel.

When, in 1928, the International Nickel Company of Canada, Snug as the Pearl in an Oyster



Nestled in a lovely natural setting at the foot of the sheltering hills, as snug as the pearl in an oyster, Levack's newest residential section is a worthy addition to a very picturesque Inco town. An extension of 1st avenue north, with side streets named after trees of the area, it has 50 smartly styled homes of five and six rooms, varying pleasantly in design and trim. Construction is almost completed, and landscaping which is part of all the Inco town additions will be completed this fall.

Limited, was reconstituted as the parent company, he became assistant to the president and, later, a director and member of the executive committee.

By 1936 Dr. Thompson was executive vice-president, and by 1937 a member of the advisory committee. As executive vicepresident he carried heavy responsibilities throughout the second world war.

He succeeded the late Robert C. Stanley as president in 1949, and subsequently became chairman, the high office which he continues to fill.

Dr. Thompson's judgment and advice are widely sought, and besides directorships in other companies associated with metal products and in the banking world, he is a member of many learned societies and advisory committees including the American Advisory Committee on Metals and Minerals, the National Research Council, the National Academy of Sciences, the American Institute of Mining and Metallurgical Engineers, the American Society for Testing Materials, the American Society for Metals and the Canadian Institute of Mining and Metallurgy. He is also an honorary member of the Institute of Metals (Great Britain).

For his distinguished creative achievements Dr. Thompson was awarded the Thomas Egleston Medal of the Columbia University Engineering School's alumni association in 1944. He is a commander of the Order of the White Rose (Finland).

The welcome reserved for a best friend always awaits Dr. Thompson wherever he goes amongst the Inco family.

QUICK QUIZ

1. How many eggs did you eat last year?

2. In 1955 which was higher, the total personal income of Canadians or the total of corporation profits?

3. Of the 100,000 square miles of land in Ontario suitable for agriculture, what proportion is at present occupied? 4. Which is greater, the total of Canada's railway lines or her paved highways?

5. Name the six Great Lakes?

ANSWERS: 3. Slightly less than one third. 5. Superior, Michigan, Huron, St. Clair, Erie, Ontario. 1. Canadians consumed 288 eggs per person in 1955. 4. Canada has more than 44,000 miles of railway lines and about 30,000 miles of paved highways. 2. Personal income was \$19.8 billion, corporation profits were \$1.6 billion.



Hundreds of Tourists Visit Reduction Plants

From points all over Canada and the United States, and quite often from overseas countries as well, come the hundreds of visitors each year to the reduction plants at Copper Cliff, the majority of them during the summer months. Here a typical group starts out on tour after being equipped by the plant guides with white safety hats.



In this fine group are Mr. and Mrs. Anthony Pinard, Garson mine, with Jeanette, 18, Marcel, 16, Gerald, 14, Rene, 12, Lorraine, 11, Yolande, 9, Richard, 8, Claudette, 7, Norman, 6, Irene, 4, Rita, 3.



The copper refinery's Fred Sheridan with his wife and two children Janalyn, 5, and Christopher, 7.



Mr. and Mrs. Sylvio Lavalle (Levack mine) with Gilles, 7, Gerald, 5, ReJean, 3, Claude, 2, Bernard, 1.



Herb. Blais of the converters at Copper Cliff, his wife, and sons Rene, 12, and Lawrence, 18.



Mr. and Mrs. John Vittore, nickel refinery, Port Colborne, with Richard, 5, and Nancy, 7.



Mr. and Mrs. Berk Keaney of Frood-Stoble mine plate shop with Berk, 6, Cathey, $2^{1}2_{2}$, and Maureen, $3^{1}2_{2}$.



The call for daily flag break and inspection must be answered on the double at the Wolf Cub camp at Windy Lake. Here the camp chief,



Mothers please note! The happy grins prove these Cubs secretly love washing dishes; Dennis Matte, Terry Keenan, Mike Opaleychuk, Johnny Curtin. John Poirier (centre) gets a smart response to his summons. As usual the attendance was large and so was the enthusiasm at the camp.

Finds Cub Leadership Fine Way of Helping Community

Joe Basha moved to Sudbury from Montreal in 1946 and he promptly became interested in Scouting when his son Douglas joined a Cub pack. His interest took a practical turn and it wasn't long afterward that he took over the duties of cubmaster.

A change of residence terminated this happy connection but Joe's fame as a leader had spread and he was soon prevailed upon by the parish priest and several interested parents to organize a Cub pack in the west end of Sudbury. The 11th Sudbury pack quickly became one of the most enthusiastic in the district and Joe means to keep it that way. In addition to his work as a cubmaster, Joe is handling the responsibilities of assistant district commissioner. This personal dedication to Scouting makes him a natural subject for a story in the Triangle's series on Inco people who take an active role in community service.

Soon after the late Lord Baden-Powell founded the Scout movement almost 50 years ago it was realized that the program was a little too advanced for younger boys, so the Wolf Cubs were formed for the age group of 8 to 11 years inclusive.

Preparing to become Scouts, the Cubs start as Tenderpads and



Joe Basha, assistant district commissioner, holds the record book while the camp chief conducts the daily inspection for cleanliness and



neatness. Ray Hammond seems a little sad about his earcheck prospects, but John McCullough is confident he'll pass the tooth-check.



Here's the Indian rope trick in reverse as Richard Myher returns to earth after his rope-climbing test, checked by Joe Basha (right) and scouter Harry Peacock. Many boys earned proficiency badges.

work hard to earn the coveted first and second stars, besides as many of the 13 Cub proficiency badges as they can qualify for. To earn the stars, Joe Basha explained to the Triangle, a knowledge of a wide variety of subjects such as signalling, boxing the compass, and highway safety, is required. Proficiency badges may be won sooner; they are divided into four groups athlete, swimmer, team player; collector, gardener, observer; artist, homecraftsman, toymaker; first aider, house orderly, guide, cyclist safety.

The real purpose of Scouting is to help boys become good citizens, Joe continued, and in his opinion one of the best ways to do this is to teach them how to enjoy, use, and conserve nature. He believes that learning more of the wonders of nature in company with other boys cannot help but make for a better boy and man.

In addition to their regular weekly meetings and occasional week-end hikes. Cubs have several large annual rallies, Joe told the Triangle. A round robin hockey tournament is also held, and competitions are staged in first aid and birdhouse building. Many packs also hold annual father-and-son banquets.

The highlight of the year, however, is the annual four-day outing at the permanent Scout camp at Windy Lake. Camp life is a full one from the 7.00 a.m. reveille until the 10.00 p.m. goodnight. Tests and trials for various proficiency badges are on the agenda, and these coupled with closely supervised swimming, games, hikes. and the ever-fascinating campfire at night, add up to one of the most exciting adventures a boy could ask. Here too, in close daily contact with others, he learns the give and take of living. At camp the Cubs keep their

At camp the Cubs keep their tents tidy and take turns washing and drying the dishes after each meal and cleaning up the litter after canteen hours. Sunday after religious services is visitors' day. Food is of the best and includes an average of 32 gallons of fresh milk daily for a group of about 75. On rainy days indoor sports and crafts in the mess hall are the order, in the spirit of what the leaders term "learn the play way." About 250 Cubs attended camp this year.

A Cub pack usually comprises from 30 to 36 boys, Joe says, although many are smaller. There are about 25 active Cub packs in the Sudbury district, 10 of them in the city, as against some 20 Scout troops. Over the years he has found that a large percentage of his Cubs become Scouts when they are old enough.

In almost a decade of Cub work Joe says he has never once begrudged the time his duties demand, even when they keep him busy several evenings in a week. It's a deeply rewarding work, he finds, to help the little fellows get ready for the trials of life. He'll be a proud man if his son Doug and his daughter Margaret become Cub leaders when they turn 18, as both now eagerly plan to do.

Joe is a member of the engineering staff at Frood-Stobie No. 7 shaft. Along with Coniston's Art Gobbo, Ainsley Roseborough of the Copper Cliff concentrator, John Poirier of the plate shop, and Jim Taylor of the sinter plant, to name only a few other well-known Scouting leaders, he is an Incoite with an important share in shaping Canada's destiny.

To Members of The Inco Family:

On another page of this issue, you will find a series of pictures of the present and past presidents of Inco, all of whom I have known and under or with whom I have served. This gives me an opportunity to extend my acknowledgement and thanks to the many members of the Inco Family who sent me their best wishes on the occasion of my completion of fifty years with the Nickel Company, as well as for the beautiful flowers which I found in my office upon my arrival on July 17, the day of my anniversary. It has been a very happy and successful fifty years. We, all of us, can be proud of the accomplishments of the company in that time. For me personally the greatest satisfaction has been my association and friendship with the many men and women who make up and have made up the Nickel Company.

As I travel around the world, I meet many people, either employed by the company or associated with it in some other way, who refer to themselves as belonging to the Nickel Family. I think that this is a very happy expression which has arisen spontaneously from people who feel themselves to be members of that family. It is a fine family, with a fine tradition. I am sure that the spirit which has always animated it will continue through many more generations.

All good wishes.

John F. Thompson

The past cannot be changed, the future is still in your power. —Hugh White

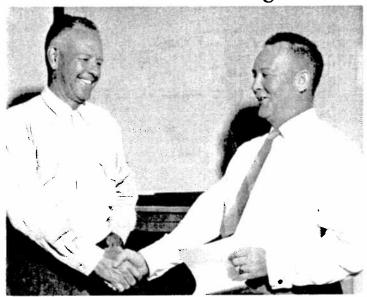


Mrs. Ibbotson's Blueberry Pie Makes Taste Buds Say Uncle

It'll be a little late in the season by the time this gets into print, but any housewife with the interests of her loved ones truly at heart will at least tuck the following information carefully away for when the blueberries are bountiful next year.

If a good gardener has a green thumb, then Mrs. Walter Ibbotson of Copper Cliff has a blue thumb when it comes to making pie. Her Nova Scotian Blueberry Pie (our picture shows her putting the finishing touches to one) is strictly for inhaling.

Bake a pie shell and let it cool, she says. Fill it with nice fat ripe blueberries. In a saucepan put 1½ cups of blueberries, 1 tbsp. cold water, 3 cup white sugar, juice of $\frac{1}{2}$ small lemon, and boil until the fruit is cooked, then press through a sieve. Spoon this liquid over the blueberries in the pie shell. Refrigerate for two to three hours, serve with sweetened whip cream or vanilla ice cream. then call the family and stand well back to avoid being run over.



Congratulations from the mine superintendent.



"C'mon pop, hand it over," said the family.

Jack Pearson Has Big Year

To return from vacation in the usual light-hearted but also lightpocketed manner and find yourself heir to more money than you started out with was the happy experience recently of Jack Pearson, popular veteran tippleman at Frood-Stobie No. 3 shaft.

Called into the office of the mine superintendent, C. H. Stewart, Jack was congratulated on his interest and initiative in submitting an idea which got the green light from the committee in charge of the employees' suggestion plan. Jack still didn't realize his good fortune until his eye caught the figure \$482 on an Inco cheque. Then his usual happy smile broadened into a beam matching that on the face



The best reward of all.

of Superintendent Stewart, who was almost as pleased as Jack.

was almost as pleased as Jack. The Pearsons' pleasant home on Cochrane Street, Sudbury, had a festive air after the good news broke. Jack's attractive wife Alice, his pert schoolteacher-daughter Jacqueline, and his sons Ray and Ewart, had a fine time dreaming up ways of spending that nice heap of greenbacks. A new bike for 6-year-old Ewart and some improvements to the family summer camp at Rock Lake, near Burwash, were two projects unanimously approved.

This is certainly a banner year for Jack, he admits, what with becoming a member of the Quarter Century Club, qualifying for four weeks' holiday with pay, and then receiving almost \$500 for a hunch on how to improve mine car couplings. Together with a handsome home, a car and a family any man would be proud of, truly his cup runneth over.

Jack has some more ideas cooking for suggestions, so the committee can count on hearing from him again before long. "You can't always be that lucky," he says, referring to his big windfall, "but it's sure worth a try."

Art Remembered For Happy Smile

"I can't remember any time I met Art Foisey in the welding shop that he wasn't wearing a smile," was the nice tribute Bill Ripley paid Arthur at a party honoring him on his retirement. When they presented him with a combination powered Lawn Boy and Sno Boy he had more reason than ever to beam upon his brethren.

Taking advantage of the reduced retirement qualifications, Art went on pension at 64 after racking up close to 40 years of valuable credited service. A welder leader, he was the daddy of all welders at Copper Cliff, starting to work there back in 1916. He was first a blacksmith, then welder, and finally leader, and a more regular, reliAUGUST, 1956

able man you'd look a long way to find, his supervisors agreed.

Raised on a farm near Ottawa. where he was born in 1892, Art invaded Montreal at the tender age of 14, working four years there for the Bell Telephone. In 1910 he was transferred to Sudbury. and helped instal part of the original telephone line between Sudbury, the Soo, and North Bay.



Mr. and Mrs. Art Foisey

In 1915 he decided to hook up with the nickel industry and was hired at Creighton as a mechanic, but quit after a year there to get married. His bride, Marie Courchesne of Quebec, couldn't quite see taking up residence in Creighton at that time but she did look kindly on Copper Cliff, so since it is the duty of the bridegroom to cater to the bride's every whim, within a month Arthur was working in the blacksmith shop at the smelter, and he remained happily there ever after — until his retirement that is.

The Foiseys have one son Leo, who works in the reverberatory department at Copper Cliff; he was married last year.

Art and his wife have moved to Sturgeon Falls, where they had purchased a home. Saying farewell to his pals on his last shift, he solemnly placed his battered old lunch pail on the steam hammer and turned on the air.

Coal Plant Honors Old-Timer



Mr. and Mrs. Giardini and Friends

When "Shorty" Giardini stepped into retirement one of the gifts they presented to him as a token of his popularity was a model of the coal plant gates he had guarded so well during the final three years of his Inco service. Along with this prized souvenir and a gold watch, presented by assistant reverb superintendent Sid Smith, went everyone's best wishes for many years of health in which to enjoy his pension.

in which to enjoy his pension. Arriving from Italy in 1910, "Shorty" came almost directly to Copper Cliff and worked in the smelter and at the O'Donnell roast yard. His service in the reverberatory department dated from 1923. Three trips back to his native land convinced him that Canada was the place for him, and he is now perfectly happy at his home on Genoa Street, near his old cronies.

He was married in 1914 to Beatrice Nardini and to this happy union three children were born: Guillo, who works on the nickel reverbs: Mary, the wife of Alf Blair of the research department; Irma, who is Mrs. Enso Taus. They have seven grandchildren. INCO TRIANGLE

Springers Had Fine Time In Sanction Trial at Azilda



The fellow who coined the expression "eager beaver" would change it to "eager springer" if he had seen these spaniels in action at the Sudbury and District Kennel Club's sanction trial for field dogs. How they loved it! Left to right, with their owners, they are: Spot (Frank Atwcod), Mike (Orest Andrews), Pat (Gordie Bennett), Skipper (Steve Kuzmaski), and Tex, who won four firsts, with George Appleby. The trial was held at Constable Carl Way's farm near Azilda.

Inco Donates \$2,500,000 To Education

Educational grants totalling \$2,500,000 by The International Nickel Company of Canada, Limited, in its program for aid to higher education were announced August 8 by John F. Thompson, chairman of the board of directors, and Henry S. Wingate, president of the Company, following authorization by the board. The grants will be paid over a fiveyear period to 140 institutions of learning in Canada's 10 provinces.

The program has two major phases. One authorizes approximately \$2,000,000 in grants to the 140 universities, liberal arts colleges and technical colleges for use in strengthening and expanding their educational program.

ing their educational program. The second phase covers the allocation of approximately \$500,000 for scholarships, fellowships and special projects, including assistance to teachers of science and mathematics and guidance counsellors in preparatory and high schools. It will increase the Company's present fellowship program and establish one fellowship in each of Canada's 13 major universities; it will establish 40 scholarships, half of which will be restricted to studies in the fields of geology, geophysics, mining, metallurgy and engineering; it will include a fund of about \$150,000 for special projects.

The fellowships will have a tenure of three years. They will provide an annual stipend of \$1,500, plus tuition, and include an annual grant of \$500 to the institution in which they are placed.

Forty scholarships of 5750 each for tuition and a proportion of living expenses for the residents, plus a grant of \$500 to the school, are provided. These will be awarded by the colleges concerned to outstanding graduates of high schools and preparatory schools. Half of the scholarships will cover instruction in the fields of geology. geophysics, mining, metallurgy and engineering in order to encourage students to choose these fields for careers; 10 scholarships will be restricted to children of the Company's employees in Canada and will permit free choice of schools and field of study; and 10 other scholarships will be unrestricted as to recipients, school or field of study.

study. "Financial aid by Canadian corporations to education in this country is sound business policy." Messrs. Thompson and Wingate said. "It is an investment by these corporations in their own future. The International Nickel Company of Canada is determined to do its full share for the future of Canada and Canadian industry."

The beneficiaries of the grants had not previously been informed of the Company's action.

The Front Cover

Inco people driving back and forth to their summer camps on Fairbanks Lake will recognize the old root cellar shown in the front cover picture of this issue

Now growing old gracefully in the shade of a fine birch grove, it is a reminder of busier days on the farm of Matti Heikkila when he kept a large herd of dairy cattle and each fall filled the root house with turnips for feed during the winter months.

Matti worked for Mond Nickel at Victoria Mine and at Worthington, and also did a turn for Inco at Copper Cliff before taking up farming in 1915. His son Reino works on the construction crew at Creighton No. 3 shaft and lives with his father on the picturesque old farm.

LOCATED

The pastor shook the hand of the village black sheep, and said warmly, "I'm happy indeed to see that you have turned over a new leaf. We were all deeply pleased to see you turn up at our little prayer meeting last evening."

The other seemed somewhat taken aback at so much appreciation, but attempted to meet friendliness with friendliness, "So," he said, "that's where I was."

Never Lonesome As Mine Guardian

Fireguard at Frood-Stobie from 1944 until his recent retirement on pension, Alex Smith had from 2,400 to 3,400 levels as his regular beat. Despite the lack of companionship he says he never felt lonesome and always enjoyed his work and the feeling of responsibility it gave him.

Born in Austria, Alex came to Canada in 1911 and from then until 1928, when he joined Inco at Frood, most of his working days were spent in the bush camps between Ottawa and Massey. Recalling those early days he is another who says the lumberjacks weren't the hard-hitting, high-kicking varmints they are so often claimed to have been. Moreover, he says the food was good and there was lots of it, except maybe when the cook got into the grape juice.



Mr. and Mrs. Alex Smith

In 1925 Alex married Lena Burke in Sudbury. Of their seven children, Pete is a car repairer at Frood-Stobie No. 3, Annie is Mrs. Lucien Marier of Copper Cliff, Bill is a puncher at Copper Cliff, Don, George, and Beatrice work in Sudbury, and Steve attends high school.

Alex has an ambition to have a little bit of land out in the country eventually, and settle down there in peace. All his old friends at the mine sincerely hope he gets his wish — and then some.

TRUE TO TRADITION

First Fisherman: "It's getting late and we haven't caught a single fish."

Second Fisherman: "Let's let two more big ones get away and then go home."



The Lovely Rock Garden at Bell Park

A section of the rock garden in beautiful Bell Park on Lake Ramsay, is shown in this picture, the fish pool in the left foreground. Jimmy Gardner and Murray Savage of the Sudbury parks department are largely responsible for this breath-taking display of annuals. In the parks commission greenhouse on David Strect about 70,000 annuals are started each year, of which 50,000 are set or t in the city's parks and the balance at the schools and other institutions.

Manitoba Legislature Makes Goodwill Visit to Moak Lake Exploration Camp

Led by Premier Douglas L. Campbell, 35 members of the Manitoba legislature staged an airborne goodwill visit to Canadian Nickel Company's exploration camp at Moak Lake, 425 miles due north of Winnipeg.

On a tour of important developments in northern Manitoba the

C Contraction

parliamentarians left their train at Thicket Portage and boarded five aircraft to fly in to Moak Lake. They were made warmly welcome by President Ralph D. Parker of Canadian Nickel, the exploration subsidiary of International Nickel Company, of which he is vice-president and general

manager of Canadian operations. On the dock with him to greet the party were S. A. Crandall, superintendent of the Company's exploration activities in Manitoba, and members of the staff.

The distinguished guests were given an informal talk on the his-(Continued on Page 10)



This is how the Moak camp looked to the visiting Parliamentarians as they arrived by aircraft.



Near the camp they saw the headframe, surface buildings, and fuel oil tanks at the shaft.



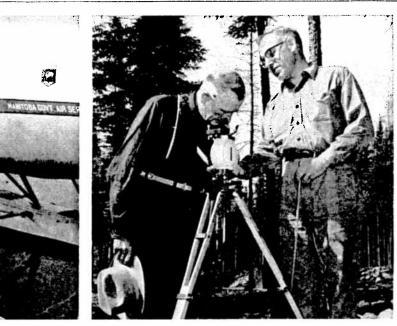
Alighting from his airplane, Mar L. Campbell was welcomed by Ralp



Mineralization in the Mystery-Mo ing by the truck is S. A. Crandall, C:



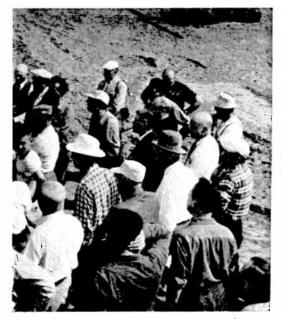
Tables were set up under the trees Brown (back to camera) served a fin



Premier Douglas Senior physicist Herb Stewart shows M. R. Sutherland of Griswold how to take a magnetometer reading.



Hon. F. L Jobin, minister of industry and commerce, operates electro-magnetic gear with Bill Shore.



is described to the visitors by Mr. Parker. Stand-Nickel Company's exploration chief in Manitoba.



The parliamentary party arrived in five alreraft from Thicket Portage, to which it had travelled by rail. The planes and camp buildings made a pretty sight reflected in the lake.



luncheon at which the chefs, Max Turko and Bob d. Premier Campbell made a speech of thanks.



Charming hostesses for the occasion were Mrs. Herb Stewart, Mrs. Oryn Pritchard, Mrs. "Chip" Duncan, Mrs. Hugh Fraser, Mrs. Harold Hess, and Mrs. "Sac" Crandall.

Win Nickel Belt Championship for Third Consecutive Year



Setting a league record, Copper Cliff Redmen for the third year in succession finished first in the Nickel Belt baseball league standing. And just to prevent anybody getting the idea they're "often the bridesmaid but never the bride" they intend to annex the playoff championship and the Monell trophy this year also.

Left to right in the above picture, they are, back row: Alton Browne (manager), Joe Zorica

Manitoba Legislature

(Continued from Page 9) tory of Canadian Nickel's exploration program in their province.

Some of the tools of exploration work were demonstrated to them. They were shown how to take a magnetometer reading of the intensity of the earth's magnetic field at a given point, thereby determining the presence or absence of abnormally magnetic material within a few hundred feet of surface. Electromagnetic gear for locating electrical ground conductors such as sulphides was also operated by them.

They visited a diamond drill rig working nearby, and also the exploration shaft which was sunk at Mcak so that diamond drilling could be carried on at depth, learning that the Company had a total of 20 diamond drills in action at that time in the area of Mystery and Moak Lakes.

Concluding their brief tour they were entertained at luncheon at tables set up under the trees, with the wives of the six staff members whose families are resident in the camp as their delightful hostesses. Saying how thoroughly he and

Saying how thoroughly he and his colleagues had enjoyed the unusual and, he hoped, significant occasion, Premier Campbell wished Canadian Nickel every success in its efforts to launch a great new industry in Manitoba's northland. To this, President Parker replied (captain, ss), Bob Wein (p & of), Leo Jacques (p & of), Bud Jewitt (utility), Moose McQuarrie (p & of), Earl MacDonald (p), Bernie Kallies (c & of), Buddy Paruch (c); front, Art Carbone (lb & of), Bobby Fuller (lb & of), Romano Taus (2b), Tommy Howe (p), Gerry Wallace (coach, 2b), Roy Maud (3b), Johnny Mulholland (p & of), Bill Jessup (equipment manager and groundskeeper). Not shown, Lou Visentin (p), Don

that the Company deeply appreciated the friendly interest and co-operation of the Manitoba government. He said it would probably be possible to tell within the next few months whether the mineralization in the area warranted further development.

A major feature of Canadian Nickel Company's far-flung search for ore, the Manitoba activities have been carried on since 1946 at a total cost to date of approximately \$8,000,000. Of this amount, \$5,000,000 has been spent in the past three years investigating the Moak Lake area.

It was airborne geophysical exploration, in which thousands of miles were flown, that eventually led the Company's geologists to the Moak Lake district after a trapper - prospector's tip had brought them to neighboring Mystery Lake, and subsequent diamond drilling located favorable mineralization. The country rock is metamorphic and of the gneiss family. The mineral occurs in a later basic rock called peridotite, and by Sudbury standards would be regarded as a low grade marginal ore, it is said.

The exploration shaft has been sunk to a depth of 1.300 feet, and considerable development work has been done on the 700 and 1.300 foot levels to accommodate the underground diamond drilling campaign.

To establish the camp at Moak Lake more than 4.500 tons of equipment and supplies was freighted 50 miles over the ice during the past two winters by tractor train, in addition to huge Smith (trainer).

They again receive the DeMarco trophy, emblematic of the league championship.

Winning eight against three defeats, Gord McQuarrie was an outstanding factor in the Redmen's triumph.

Another highlight of the season was the fine showing made by Romano Taus, Bobby Fuller, and Lou Visentin, who took the long jump from juvenile to senior com-

quantities carried by various types of aircraft. A saga of skill, grit and faith true to the best pioneering traditions of the mining industry could be woven about this and other achievements of Canadian Nickel exploration crews.

The prefab metal-clad administration buildings and dwellings in the attractive little community are oil heated and electrically lighted. pany this year and landed on both feet.

Most travelled member of the team was probably Bernie Kallies, who commuted regularly from Levack mine where he is on the electrical staff.

The indestructible Gerry Wallace had another great season and gave every indication that when Gabriel finally blows his horn Wallace will still be in there to field the echo.

Half a million gallons of oil is brought in during the winter to cover a year's supply for heating and diesel power.

Of the 235 men at present employed at the shaft or on the diamond drilling rigs in the area, a considerable number are Cree Indians from the Nelson, Norway, and Oxford trading posts. They are good workers.



Garson's Jack Laking Rewarded

"It couldn't happen to a nicer guy" was the consensus of opinion among the boys in the Garson Mine electrical department when Jack Laking reaped awards of \$178 and \$34 under the Employees Suggestion Plan for a couple of his bright ideas. Seen ogling the bonanza with Jack are Wes Ranta, Ross Fines, and Basil Milks.

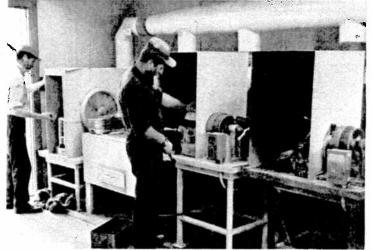
Some of the Activities at Canadian Nickel's Moak Lake Camp



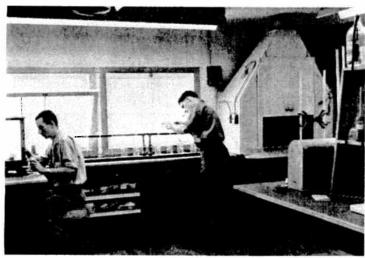


Geologist "Chip" Duncan in regular contact by two-way radio with the outlying diamond drill rigs. At right is D. McKenzie, chief chemist.

Supplies are delivered by aircraft to the dozen diamond drill rigs operating in the area. Here drill rods are unloaded from a helicopter.



In the sample house diamond drill core samples are crushed and pulverized for assaying. Two samplers shown are C. Dram and A. McLeod.



Adjoining the sample house is the neatly laid out assay lab. Bill Taylor is busy at the balance while Jim McGinnis filters a solution.



Harold Hess and Ralph Hawkins of Inco's mines department confer on local engineering problems.



The six families residing at Moak Lake live in smartly designed metal-clad houses. Their swimming beach is close by. The children also have a well-equipped playground.



Inco Strong On Service to Its Customers

Consumer services available to purchasers of Inco products are described by the chairman of the Company, Dr. John F. Thompson, as the most comprehensive in the world in the non-ferrous metals field.

These special services, which have been so effective in the development over the years of the market for nickel, are discussed by Dr. Thompson in the following letter he sent recently to the shareholders of the Company: International Nickel for more

International Nickel for more than half a century has devoted much of its energies to broadening and expanding the markets for its products, and especially for nickel. This effort is ceaseless since the pattern of industrial application of metals is one of continuous change in response to technological developments, the rise of new industries, the advent of new alloys and the need for maintaining a competitive position where otherwise a market may be diminished or lost to other materials.

To win, hold and expand markets it is essential that we actively reverse it is essential that we actively promote the most efficient use of our products. We do this by giving continuous and effective services to existing and potential customers. These **consumer ser-**vices must go far beyond the booking and scheduling of orders, the making of deliveries and providing of readily available warehouse stocks. They must include development and distribution of technical and scientific data and assistance in perfecting economical processing and fabricating techniques — all devoted to the end of helping Inco customers produce and sell their products. This calls for accurate knowledge of consumer needs in all branches of industry and frequently requires development of specialized materials to meet such needs. In all of this activity our research laboratories play a major role. Last year expenditures for development and research alone were almost \$8,000,000.

Among those engaged in the Company's development and research activities are specialists in many fields. Members of our development and research staffs each year call on thousands of users of nickel and our other products to discuss technical problems, and they participate extensively in the activities of technical societies in Canada, the United Kingdom, the United States and elsewhere. Technical and Research Divisions are maintained in Toronto, On-tario, New York, N.Y., and London, England. Technical Field Sections are maintained in 13 key industrial centers in Canada and the United States. In addition there are Centers of Information on Nickel in Paris, Milan, Brussels, Dusseldorf, Zurich, Bombay, Johannes-burg, Tokyo, Buenos Aires, Sao Paulo and Mexico City, where wears may immediately obtain immediately users may obtain advice on technical problems.



Inspecting refined copper shapes at the copper refinery during their Inco tour, four members of the Imperial Defence College listen to their guide, Warren Koth (centre), assistant to the manager of the copper refining division. On the left are Air Commodore D. M. T. MacDonald, CBE, and Brigadier D. E. B. Talbot, CBE, DSO, MC: on the right are Captain R. E. N. Kearney, OBE, RN, and Captain H. S. MacKenzie, DSO, DSC, RN.

Defence Aces Guests of Inco

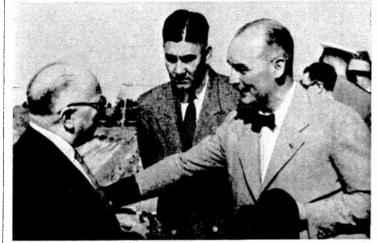
A visit to Inco operations in the Sudbury district was again a feature of the annual North American tour of the Imperial Defence College. Some of the keenest military minds in the British Commonwealth inspected Frood-Stobie open pit and surface plants, the reduction plants at Copper Cliff, and the copper refinery.

One of five groups sent by the college to various parts of the world to obtain first-hand knowledge of commonwealth key defence installations, the 17-man party was headed by Major-General G. S. Thompson, CB, DSO, MBE. One member, Air Commodore S. C. Elworthy, CBE, DSO, MVO, DFC, AFC, Royal Air Force, was recalled to England as a result of the Suez crisis.

Represented among the visitors were the British army, Royal Navy, Royal Air Force, Colonial Service (Gold Coast), British air ministry, British ministry of labor and na-

Since nickel and nickel alloys find application in virtually every industry, the necessity for extensive sales forces and services becomes readily apparent. Our own sales staffs and development staffs are stationed in the areas of greatest present and future sales opportunity. Metal distributing organizations, which handle other products in addition to nickel and nickel alloys and have their own sales forces, supplement our services in major industrial centers and furnish a prompt and valuable contact with developments and needs of industry. This extensive network of distribution provides customer services from 116 cities throughout the world.

Inco's selling activities are supported by a continuing advertising programme, supplemented by broad publicity activities, prin-



At the open pit H. R. Keast, assistant superintendent of mines, chats with Major-General Mohammad Musa, MBE, Pakistan army, and Major-General G. S. Thompson of the directing staff of the Imperial Defence College...

tional service, Royal Australian Navy, Royal Australian Air Force, South African staff corps (air), Indian army, Pakistan army, Rho-

cipally in Canada, the United States and the United Kingdom. This programme includes newspaper, radio, consumer magazine, trade paper and direct mail advertising; participation in trade and industrial exhibits, and also numerous Company publications dealing with the properties and performance of nickel, nickel alloys and other products. Besides the use of the English language, advertisements and publications of the Company appear in French, Italian, Dutch, German, Swedish, Spanish, Portuguese and Japanese. In addition, motion picture films are made available. These deal primarily with Company produc-These deal tion activities and product applications, fabrication and properties.

(Fourteen periodicals with a total annual distribution of 3,300,000 are published by Inco

desia and Nyasaland staff corps. The Canadian conducting officer was Commander D. C. Rutherford, RCN.

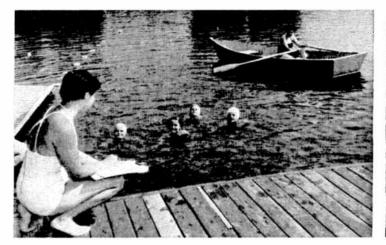
in Canada, the United States, the United Kingdom and Europe, and Latin America. Other activities by Inco in the communication of technical information, on which it places great importance, included the presentation in 1955, for example, of 50 papers and 200 lectures before technical audiences. Some 600 technical bulletins and pamphlets published by Inco are currently available. In addition, Inco has issued or sponsored a number of comprehensive data and reference books.)

Behind the various products International Nickel produces and markets on a world-wide scale stand what we believe are the world's most comprehensive consumer services in the non-ferrous metals field. These services are available to every purchaser of an Inco product.

Brownies Had Heap Big Time in Annual Camp at Hazelmere



A total of 500 Pioneers, Girl Guides and Brownies have enrolled at Hazelmere, their association's beautiful camp on McFarlane Lake, during the busy season just closing. They came from all corners of the big Sudbury division, including Lerack, Capreol, and Burwash. The Triangle camera caught pictures of Brownies from the packs at Whitefish, Waters, Creighton, Lively and Copper Cliff hugely enjoying their three-day camp. On the left an Indian pow-wow is in progress, and only a mother would recognize her bairn among these bold braves. On the right the camp nurse, Mrs. Lawrence, makes a note in her book as Mary O'Gorman moves her safety tag on the swimming check board.



The camp swimmer, Laurann Von Valkenburg, watches Nora Davidson, Margaret Duffy, Judy Stone and Rhea Bennett pass a swimming test. At the oars of the rescue boat is the assistant swimmer Barbara McCandless.



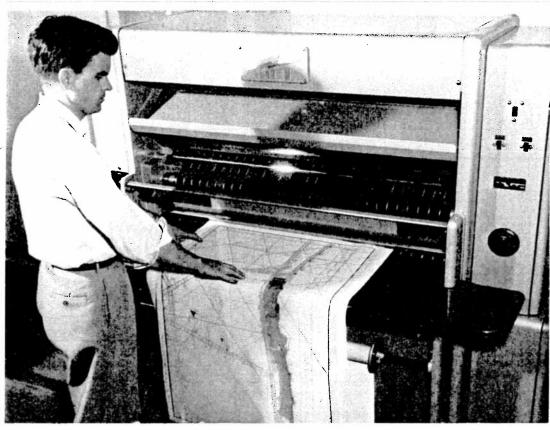
Among the proficiency tests taken by the Brownies during the camp was fire-making. Here Kaarina Tulisalo, one of the junior leaders, is coaching Susan Hill, Simone LaRocque, and Joyce MacIntosh in this camperaft.



This was the camp staff: back row, Mrs. Pamela Pajiewski, Mrs. Galdys Davidson, Mrs. Lawrence, Mrs. Shirley Maskell, Mrs. Gertrude Wiggeshoff, Mrs. Cunningham, K. Tulisalo, Mrs. Min Stickles, commandant; front row, B. McCandless, L. Von Valkenburg, Rose Marie



Davidson, Marlene Seawright, and Pat Quinn. On the right, all packed up to leave for home, but glum because camping days are over are Marilyn O'Brien, Simone LeBreton, Audrey Reid, these visitors have found their stay too short.



In the engineering office at Frood-Stobie No. 3 shaft Dave Yeomans is about to print a copy of a drawing of one of the levels in the mine, using the office's new dry process ammonia print machine. The original drawing is placed on top of sensitized paper and fed into the rollers over quartz tube lights, and the copy is then developed by brief exposure to ammonia gas.

Hundreds of Drawings, Documents Copied Daily in Vital Service to Inco Operations

One of the many services contributing importantly to the smoothness and efficiency of Inco's operations is the copying of engineering drawings, maps, reports, and records. In printing rooms at the various plants, by several different methods, hundreds of reproductions are made each day so that information will be promptly available without which mining programs, metallurgical processes, and construction projects would soon bog down.

At Frood-Stobie's No. 3 and No. 7 shaft engineering offices, the latest model of dry process ammonia print machines have recently been installed. These smart, streamlined units have reduced the time for making white prints to an absolute minimum — they are capable of producing standard $(27 \times 42 \text{ inches})$ or half-standard drawings at the rate of almost 100 per hour.

Known as positive printers, these machines will make a white print with either blue or black lines depending on the type of paper used. To turn out a print of a linen tracing or other drawing, sensitized white paper is fed into the machine along with the material to be copied. After a few seconds exposure to the light from a quartz tube mercury lamp the original material is released and a continuous canvas conveyor then carries the exposed paper through a chamber where it is in contact for a few seconds with ammonia vapor. This develops and fixes the image, and the finished print then emerges fresh and dry, ready for use.

As many copies as are required can be made, and the original tracing or drawing, which probably took many hours of exacting work, remains in good condition.

Equipment of a similar type is also in action daily at Creighton, Levack, Garson and Murray mines, and the copper and nickel refineries.

At Copper Cliff several methods of copying are used, with the blueprint machine handling the largest production of from 150 to 300 or more prints daily. In addition a daily average of about 200 photostats and from 200 to 300 Unikop reproductions are made, besides the Photaet prints which vary widely in quantity.

Today the majority of "blue" prints are white, which makes for easier reading and notation, but blues are still used almost exclusively for field and construction jobs because they reflect less sunlight, resist dirt, and seem to wear better. Prints, either blue or white, up to 42 inches in width are turned out by the Copper Cliff staff under the supervision of Gordon Harry. On occasion surface layout maps as long as 20 feet have been reproduced.

The photostat machine is in demand particularly for making copies of some of the operating departments' monthly reports. It is capable of reducing or increasing the size of the original in reproduction. With its prism lens it can bring a 42×30 inch print down to postage stamp size, although since a reduction of 50 per cent is the limit for one exposure, several would be necessary to accomplish the example quoted. When making a "blow up," however, an increase of 100 per cent is possible with each exposure.

Similar in method to the making of photographic contact prints is the action of the Photact machine, yet another system of copying in use at Copper Cliff. A negative is first produced from the original material or drawing, and then a positive waterproof linen is made which is a run-, fade-, erasureproof record. Another advantage is that ink markings may be made on it to add subsequent information or data. This machine is especially effective in reproducing the intricate detail of large geological maps which, traced by hand, would take a man at least a couple of days to copy.

Latest addition to the Cliff battery is a copying machine with the interesting trade name of Unikop. It provides a fast simple method of copying letters and other records up to a maximum size of 16^{15} x 23^{15} inches. In this operation also, sensitized paper is exposed to light along with the original, after which it is quickly run through a chemical developer. On a good day it's possible to put through a letter a minute with this handy little unit, the boys say.

Snappy Acts for Quarter Century Club's Big Party Another sparkling program of variety entertainment by stars of variety entertainment by stars of

Another sparkling program of variety entertainment by stars of radio, TV, and the concert stage will feature the annual dinner of the Inco Quarter Century Club, to be held at the Sudbury Arena on Thursday evening Sentember 27

Thursday evening, September 27. Some 220 new members from the mining, smelting, and copper refining divisions will be welcomed into the club by President Henry S. Wingate and Vice-President Ralph D. Parker.

The Women's Association of St. Andrew's United Church will again serve the turkey dinner. An estimated 1,300 will attend, making it the biggest banquet ever staged in Sudbury.



Ron Leonard

Among the topnotch performers will be a long-time favorite of stage and television audiences, Ron Leonard, magician, comedian, and master of ceremonies. It takes a sharp eye and a keen wit to stay even with Ron's tricks and the patter that goes with them, and Quarter Century Club members are sure to enjoy his act.



Betty Weir

Another number certain to draw prolonged applause will be the vocal presentations of Betty Weir, a lovely young personality who will sing favorites both old and new.

Several surprise packages, among them a sensational youngster who is already booked to appear on the Ed Sullivan show this fall, are included in the program.

Mrs. Chrissie Nemis of Sudbury will sing "O Canada," accompanied by the Coniston Band under the leadership of Dan Totino, to open the proceedings.

Great Variety Of Tools Kept For Machinists

Like a supermarket with its almost endless choice of sizes, shapes and sorts is the toolroom in the Copper Cliff machine shop, where a "do-it-yourself" fan would go off his rocker with glee.

Drill bits, reamers, taps, dies, gear cutters, milling machine cutters, gauges, templates, jigs, etc. etc. are all there in a fascinating variety calculated to cover any assignment that may turn up in this shop where the unusual is commonplace.

Over this impressive array reigns Charlie Tuttle, a fellow who likes a place for everything and everything in its place. Were it not for the efficient system he maintains for cataloguing stocking the toolroom, bedlam would result in no time. Issuing and replacing the many tools required during a day by the various machinsts is his job, and he can lay a hand on a 3/16-inch tap quicker'n a hummingbird's wink.

Tucked away in one corner of the room is Phil Lavigueur, whose work as machinist is to operate the Cincinatti grinder on which keen cutting edges are restored to the tools after they have been on duty in the shop.

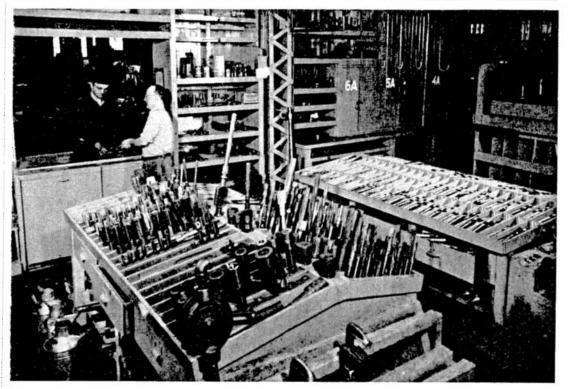
An idea of the astonishing number of cutting tools, special wrenches, and other articles in stock is gleaned from the fact that of drill bits alone there are well over 1,000, in almost 200 different sizes ranging from a cat's whisker 1.64inch up to the elephant tusk 213/16-inch.

The variety of reamers is almost as large, and taps and dies are available from the fine 1 16-inch size with 48 threads to the inch up to the 2^{α} -inch tap or die running four threads to the inch.

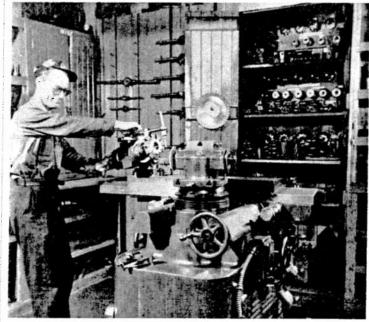
Of gauges, templates, and drilling and holding jigs there is a variety of more than 1,000 shapes, all made right in the shop. Then there are impact wrenches, grinders, electric drills, drill press sockets, bell centres and other tools of the trade available for almost any conceivable machining job.

The majority of the cutting tools are made from high speed steel which has special properties to withstand extreme tests of impact, heat and friction. This steel is made from a brew of carbon, manganese, silicon, tungsten, varadium, molybdenum and in some cases cobalt.

Discussing the use of some of the tools Lloyd King, the shops foreman, who traded his teething ring for a micrometer, explained to the Triangle that gauges are a form of standard used frequently when turning shafts, particularly the tapered end and threaded type, the gauge controlling the size and extent of the thread and also the degree of taper. Templates are patterns used as a guide when cutting out several pieces of identical dimensions, or repeatedly turning down some item of machinery to a standard size. Jigs, both drilling



A few of the myriad of dies, taps, reamers, drills, and other tools kept in the toolroom at the Copper Cliff machine shop are seen in this picture, in which Charlie Tuttle is issuing a couple of drills to 4th-year apprentice Harry Bellay at the start of a shift to get him going on his day's assignment.



Phil Lavigueur, the tool doctor, is setting up a milling machine gear cutter for grinding. In the course of a day he gives many a tool a new lease on life. The cupboard in the background contains other gear cutters of various shapes.

and holding, perform as their names imply, the one holding a succession of the same-sized items and the other for drilling repetitive holes, eliminating the necessity of setting up the lathe for each item. Gear, sprocket, and spline cutters are more complex tools for cutting gear teeth and similar parts of many sizes and depths.

Speaking of reamers. Lloyd made the interesting observation that it is almost impossible to drill a perfectly round hole or one to absolutely exact dimensions. Consequently on fine work holes are drilled just a hair undersize and then reamed out. For instance, to drill a perfectly accurate 1-inch hole a 63.64-inch drill would be used and then a 1-inch reamer.

A machining job they cannot handle or a part they cannot make is something the boys in the machine shop say they haven't seen yet, and never expect to see, either. They revel in the tricky assignments that come in from other Inco operations as well as from the vast reduction plants in their own backyard. A goodly measure of credit for their country-wide reputation for skill and resourcefulness, they readily agree, is due their splendidly equipped toolroom and the men who run it so efficiently.

New Makeup Style

With this issue the 'rriangle adopts a new style of makeup using four columns of $11\frac{1}{2}$ -em width instead of three columns of 15 ems. The length of the column has also been increased by almost half an inch.

The change will make a substantial increase in the amount of news the Triangle can carry about the Inco family and its everbroadening activities. It will also allow a greater variety of makeup.

When it was first published in September, 1936, on the basis of eight issues per year, the Triangle's page was 12×18 inches with a 15-em column. In June, 1937, the format was charged to 16 pages 9 x 12, retaining the 15-em column. With the December 1939 issue publication was suspended until April, 1944, when it was resumed on a monthly basis.

The type face used in the Triangle is Ionic, 7 point on an 8-point body, and most of the headings are set in Bodoni.

WRONG DIAGNOSIS

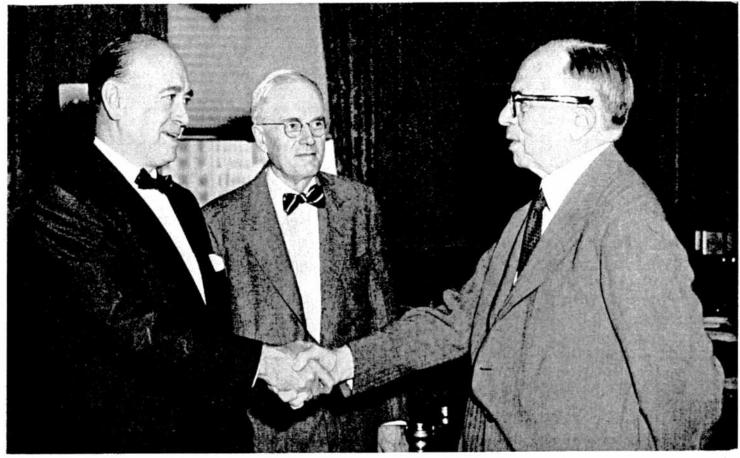
The kindly social worker was doing her annual round at the local jail. For each prisoner she had a

For each prisoner she had a pleasant word of encouragement. Even the rum-soaked character in the end cell was treated to her warm personal touch.

"Tell me." she asked, "was it your weakness for liquor that brought you here?"

"Heck no, ma'am," laughed the man. "You can't get nothin' in here!"

Snapshots of Life with Inco: Dr. Thompson's 50th Anniversary



Dr. John F. Thompson, chairman of the board of International Nickel, is shown above being congratulated by Henry S. Wingate, president, on the occasion of his 50th anniversary with the Company.

A graduate and then a member of the faculty of the Columbia School of Mines, Dr. Thompson joined Inco on July 17, 1906, and was president from 1949 until he became chairman in 1952.

Mr. Wingate graduated from Carleton College and the University of Michigan Law School. He came to Inco in 1935 from Sullivan & Crom-

The Chairmen: ate of Annapolis Naval Academy and Harvard Law School, and one of the men who launched the original International Nickel Company, was the

first chairman of the board of directors, serving from 1902 to 1916 when he was succeeded by Edmund C. Converse, a graduate of the Boston

Latin School and another member of the original group.

well, the Company's general counsel, and was elected president in 1954.

Seen joining Mr. Wingate in extending felicitations to Dr. Thompson on the proud and happy occasion is Paul D. Merica, who was Inco's president from 1952 to 1954 and is now consultant to the Company. He graduated from the University of Wisconsin and the University of Berlin, and was on the staff of the U.S. Bureau of Standards prior to becoming a member of Inco in 1919.

Photographs of the other three men who have filled the office of president of International Nickel are reproduced below.



Ambrose Monell (1902 to 1917) Graduate of Columbia School of Mines. Elected first president when International Nickel Company chartered in 1902, merging Canadian and Orford copper companies.



W. A. Bostwick (1917 to 1922) Graduate of Columbia School of Mines. Joined Inco in 1911 from Carnegie Steel Company and served as assistant to the president until his election as president in 1917.

Colonel Robert M. Thompson, a gradu-



Robert C. Stanley (1922 to 1949) Graduate of Stevens Institute of Technology and Columbia School of Mines. Previously with S. S. White Dental Company, he joined an Inco predecessor company in 1901.

Mr. Converse died in 1921 and was succeeded in 1922 by Charles Hayden, a graduate of the Massachusetts Institute of Technology and a partner in the New York investment firm of Hayden, Stone & Co. Mr. Hayden held this post until his death in 1937 when he was succeeded by Robert C. Stanley, then president. Upon Mr. Stanley's death in 1951 Dr. Thompson was elected chairman of the board. He is the Company's chief executive officer.