

VOLUME 15

COPPER CLIFF, ONTARIO, AUGUST, 1955

NUMBER 5



The Flag Break



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

COPPER CLIFF. ONT. EDITORIAL OFFICE

Was Storekeeper For Over 44 Years

When he was a storekeeper at Copper Cliff, Ralph Crouse came across the interesting coincidence that he and the two men under whom he worked, W. T. Waterbury and C. C. Chapman, were all married on the same day, September 9.

Now he's retired and living far from his old job, but coincidence still keeps him in close touch — his home is on Chapman Avenue in Waterbury, Connecticut.



RALPH C. CROUSE

A recent visitor with his son Enos at Copper Cliff, Ralph recalled that when he started in the stores department in 1908, a monthly turnover of \$30,000 worth of material was considered big business, but when he retired in 1952 more than \$2,000,000 a month was going through the Copper Cliff stores account.

Born at Conquerall Bank, N.S., on May 10, 1887, son of a stevedore who also farmed and worked in the lumber mills up river, Ralph got part of his education at night school in Boston, and there heard about the nickel industry from a diamond driller. On spec he wrote and got a job which was to stretch into the unusually fine record of 44 years and 10 months of credited Inco service.

He was married in 1914 to Ellen Stewart, who died in 1952.

HOW TO CURE SHYNESS

A hillbilly came into the grocery store carrying a jug of home-brew liquor in one hand and a shotgun in the other. He grabbed the grocer and demanded, "Here friend take a drink outa my jug.'

The grocer refused. The hillbilly leveled his shotgun and said — "Drink."

The grocer drank, then shuddered, shook, shivered, turned green and coughed, "Gad, that's awful stuff."

"An't it though?" laughed the hillbilly. "Now hold the gun on me until I take a gulp!"

Model of Converter Was Greatly Admired



A masterful example of craftmanship that stood up to the critical scrutiny of the skimmers and punchers as well as the general public was the scale model, 1/2 inch to 1 foot, of a converter displayed in the Inco windows at the Chamber of Commerce offices in Sudbury. Made in the machine shop of the research laboratory at Copper Cliff by Harold Gathercole, the model is complete to the finest detail. It is powered by three small electric motors.

Silver Jubilee of The Monel Family

In another of his interesting and informative letters to the shareholders of the Company, Dr. John F. Thompson, chairman of the board, recently discussed the Monel family of alloys as follows:

"As I pointed out in my address to shareholders at the annual meeting of the Company in Toronto earlier this year, 1955 marks the fiftieth anniversary of the production by International Nickel of the first of its series of versatile high-nickel copper alloys made and marketed by it under the trade mark Monel. The versatility of these alloys has led to their penetration into a number of fields in engineering, industry and the arts where there is a demand for an alloy possessing that combination of usable properties which it seems no other alloy possesses in the same measure.

"The successful development of the alloys bearing this trade mark and the subsequent creation of world-wide markets for them have been important factors in establishing the Company in the position it holds today. It was largely as a consequence of the early experiences gained in promoting these highnickel copper alloys that we were able to build up for nickel, our principal product. diversified markets resulting in sales that have reached record proportions.

"The first alloy to which the trade mark Monel was applied contained about twothirds nickel and one-third copper and was originally produced as a "natural" alloy from the ore of Inco's Creighton Mine in the and Incoloy. Sudbury District of Ontario. The alloys "As the f owe their origin to the late Robert C. Stanley, a former chairman and president of nical service, sales and distribution into a International Nickel, and the trade mark barmonious whole, the development of the applied to them was adopted from the name initial high-nickel copper alloy, marketed of the late Ambrose Monell, the patentee of the original method of manufacture, who at the time of the discovery and early develop- in our extensive operations over the past ment was president of the Company. Known half century.'

for their resistance to corrosion, high strength and pleasing appearance, the unusual com-bination of properties of the Monel alloys has made them valuable for applications in practically every industry.

"As one of the forerunners of today's 'Alloy Age', the initial Monel alloy was the pioneer that led to the development of many of the more than 50 nickel alloys the Com-pany now produces. In the first 50 years of production, from 1905 to the end of 1954, nearly 900,003,000 pounds of the Monel alloys were shipped to a wide variety of civilian and defence industries. This total would have been considerably greater if the unprecedented requirements for defence and stockpiling, particularly in recent years, had not necessitated diversion of nickel from many normal industrial channels.

"The Monel alloys have contributed substantially to the progress of many fundamental industries of the world today. monument to the usefulness of these alloys 's Inco's Huntington Works at Huntington, West Virginia, built in 1921-22 specifically to produce the original Monel alloy in the many shapes and forms required by industry. This plant has been expanded until today it is the largest in the world devoted exclusively to the production and fabrication of highuickel alloys. At the Huntington Works' 'Open House', October 25-27, the Monel anniversary will be observed.

"The development of the Monel alloys stimulated the search for other quality alloys controlled as to their composition, production, fabrication and thermal treatment, both by ourselves and by others. The Inco-developed alloys that followed the original Monel alloy include the Monel age-hardenable alloys, and those marketed under the Company's trade marks, Inconel, Nimonic

"As the first example of our success in welding together research, production, techunder the Company's trade mark Monel, established standards that have been a guide

INCO FAMHLY ALBUM

"Good to the last drop" is a slogan that applies just as well to holidays as it does to coffee; among those making the most of the last precious days of vacation freedom, when the Triangle called around, were (1) Mr. and Mrs. Nick Jarmovitch (Garson Mine) with Terry, 10, Roddy, 8, Candy, 2, and Gary, 10 mos. (2) Mr. and Mrs. Henryk Plesniak (Frood-Stobie Mine) with Mary, 5, Helen, 8, and Danuta, 7. (3) Mr. and Mrs. Larry Brunelle (Levack Mine) with Bruce, 4, Mickey, 1, Paulette, 8, and Denis, 2. (4) Mr. and Mrs. Clarence Spencer (Creighton Mill) with Lynne, 8, Verna, 12, Marguerite, 16, Judy 5, and Pat, 15. (5) Mr. and Mrs. Ugo Comacchio (Coniston) with Robert, 9 mos., Ricky, 5, Pauline, 2, and Elaine, $6\frac{1}{2}$. (6) Mr. and Mrs. Adolfo Flora (Murray Mine) with Peter, 8, and Adolfo, 6. (7) Mr. and Mrs. George Kelly (Port Colborne Refinery) with Colin, 13, Maxwell and Zora, 11, and Grant, 9.















Record-Making Group of 269 Joining Quarter Century Club

With President Henry S. Wingate and Vice-President Ralph D. Parker doing the honors, 269 new members from the Mining & Smelting and Copper Refining Divisions will be enrolled in the Inco Quarter Century Club on Thursday evening, September 15. Double last year's record group, the 1955 initiates will bring to a total of 1,023 the number of active and retired employees in the Sudbury District who have completed 25 or more years of service.

Sudbury Arena will again be the scene of the Quarter Century Club's annual get-together. On account of the large number, presentation of membership buttons will be made at a private reception for the incoming members at 5.30 o'clock in one of the lounges.

At 6.30 o'clock more than 1,100 Inco 25-year men and pensioners will sit down to the turkey dinner served by the ladies of St. Andrew's United Church Auxiliary. Ralph W. Waddington, assistant to the vice-president, will be chairman of the program.

On this and the next seven pages are photographs of 267 of the new members; not shown are Roy Short and Risieri Polano. The Triangle joins their families and friends in heartiest congratulations on their distinguished record of service with as fine an employer as any man ever worked for.



Nat. Adshead Open Pit



Pete Anaka Frood-Stobie



Alex Affi Levack



Milton Anderson Frood-Stobie



AUGUST, 1955

Freeman Aggiss Coniston



Norman Anderson Frood-Stobie



Sid Anderson Copper Cliff



John Antonini Copper Refinery



Norman Arbour Copper Refinery



F. Argentin Coniston



Bernard Armstrong Copper Refinery



Wm. Armstrong Copper Cliff



W. H. Armstrong Copper Cliff



David Aubin Copper Cliff



Andy Ballantyne Copper Cliff



Herb Barrand Open Pit



Albert Beach Murrav



Edgar Beaudry Copper Refinery



Wm. Becket Copper Cliff



Jack Black Copper Refinery



Herb Bennett Copper Cliff



Leonard Blake Frood-Stobie



Augustine Bernard Copper Refinery



Spell Blake Creighton



Marcel Bertrand Copper Cliff



Johan Bosnar Frood-Stobie



Pietro Bettio Copper Cliff



Horace Bourget Frood-Stobie



Raimondo Biscaro Copper Cliff



Archie Bowen Garson











Pat Bradshaw Copper Cliff



Arthur Burden Copper Refinery



Wm. Brady Garson



Barney Cain Creighton



Douglas Brankley Frood-Stobie



Alex Campbell Copper Refinery



INCO TRIANGLE

Jack Bruce Frood-Stobie



Israel Carrey Copper Refinery



Andrew Brugos Copper Refinery



Mike Chargales Open Pit



Page 5

Willian Bryant Copper Cliff



James Closs Copper Cliff



Fred Cooper Copper Refinery



Donald Cowcill Copper Refinery



Jack Crawford Copper Refinery



Leslie Creswell Coniston



Carl Cretzman Creighton



Thomas Crowther Copper Cliff



Frank Curhalek Frood-Stobie



Raymond Davey Creighton



Louis Debelak Creighton



Wojchuk Dejneka Coniston



Harry Dinnes Open Pit



Albert Dockrell Garson



Joe Dowling Frood-Stobie



F. Favretto Copper Cliff



Olaf Eden Frood-Stobie



George Fedoronko **Open** Pit



Armas Eloranta Copper Cliff



Frank Fielding Copper Cliff



Alois Eppich Open Pit



Adolfo Flora Murray



Sante Facca Open Pit



Attilio Floreani Coniston



Robert Faddis Frood-Stobie



John Forsyth Copper Cliff





Dave Fortin Frood-Stobie



Pat Gallagher Creighton



Edward Fosten Copper Refinery



Iwan Gawalko Copper Refinery



Howard Francey Coniston



George Gazdic Copper Refinery



Alex Fraser Pensioner



Leon Gervais Coniston



George Furchner Copper Refinery



Thomas Gladstone Copper Cliff





Guido Gobbo Copper Cliff



Janez Golobic Frood-Stobie

Joseph Halovanic

Frood-Stobie

Sidney Holmes

Levack

A. H. James

Copper Cliff



John Gomme Pensioner



Louis Gore Mines Dept.



Copper Cliff



Copper Refinery







Copper Refinery





Clarence Hobden Copper Cliff



Wilfred Jacques Copper Cliff



Walter Johnston Copper Cliff



Martin Horek

Frood-Stobie

G. S. Jarrett

Copper Cliff





Fred Harvey Frood-Stobie



Elmer Howard Copper Cliff



John Jelenic Open Pit



Mat Hreljac Creighton



Bert Johnson Creighton











Reginald Johnson

































Matt Jurman Creighton



Gordon Keast Copper Cliff



Kalle Kangas Copper Refinery



John Kebickas Copper Cliff



Toni Kapeluk Frood-Stobie



Bert Kemp Frood-Stobie



Janko Katulich Copper Refinery



Michael Kauppi Copper Cliff



Dr. J. L. Kirk Garson



Jack Kayshuk Creighton



Isak Kivisto Frood-Stobie



Henry Klein Frood-Stobie



John Koskinen Creighton



Warren Koth Copper Refinery



Alex Killah

Murray

Fred Kuczma Creighton



John Kulack



Copper Cliff



Orphir Lalonde Frood-Stobie



George Kurdel

Copper Refinery

Eli Lamontagne Police Dept.



Paul Lemieux Pensioner



John Kusnierhyk Frood-Stobie

Alfred Langlade

Copper Cliff

Nicola Leone Copper Cliff



Frank Kuznik Open Pit

Albert Larabie

Frood-Stobie

Charles Lineham

Copper Cliff





Walter Leach Frood-Stobie



Aatu Linna Frood-Stoble



Romeo Leclair Police Dept.



Joseph Lovsin Creighton







Jack Latreille Copper Refinery



George Lineham Copper Cliff







INCO I KIANGLE



Patrick Lowney Police Dept.



Jan Lucyk Copper Cliff





Wilfred Lugg Frood-Stobie



August Luoma Open Pit



Roy MacDonald Nairn

Karl Martilla

Frood-Stobie



AUGUST, 1955

Alfred Maggs Frood-Stoble



Vaine Marttinen Frood-Stobie



Aarne Malinen

Murray

Stanley Martyn Copper Cliff



Fred Mattson Frood-Stobie



Peter Maychos Frood-Stobie



John Martin Copper Cliff

Art McCann Frood-Stobie



John McCauley Garson



Murdock McIver Creighton



Andy Mesjarik Copper Cliff



Albert Morin Garson



C. McChesney Frood-Stobie



Wm. McKee Creighton



R. J. McCormick

Creighton

Gerald McKinnon Copper Cliff



Edward Mills Garson



John McNevin

Copper Cliff

Sebastian Milnik

Coniston



Copper Cliff

Alex McQuillan

High Falls

Mato Miluniz

Open Pit



Copper Cliff

Thomas Meehan

Copper Cliff

Vaino Minkkila

Frood-Stobie







John Miklich Creighton



Arthur Morin Levack



Alex McGhee







Leonard Morris Copper Cliff



George O'Malley Frood-Stobie



Mike Moskal Copper Cliff



Alfred Ouellette Copper Cliff



Pit Moskal Copper Cliff



INCO IRIANGLE

George Norman Copper Cliff



A. J. Northwood Copper Cliff



Charles O'Connor Copper Cliff



Toivo Penttila Open Pit



Rinaldo Pierini Creighton



Frood-Stobie



Adolphe Paradis **Open** Pit



Wilbrod Pauze Frood-Stobie



Karlo Pavlecic Frood-Stoble





Lauri Pyoli Garson



Jack Rantanen Frood-Stobie





Toni Plut Frood-Stobie



Roman Podedworny Copper Cliff







Lewis Rogers Copper Cliff



Nick Rohozynsky Frood-Stoble



Dan Sajatovic Frood-Stobie



Romeo Rose

Copper Cliff

Giuseppe Salfi

Copper Refinery



Cletus Reynolds Copper Refinery

Metro Rosko

Open Pit

lisak Salo

Creighton



Harry Roy

Copper Cliff

Otto Salo

Frood-Stobie



Wm. Ruff Frood-Stobie



Gerald Sanders Frood-Stobie



Louis Ruparcic Open Pit



Adelard Sauve Copper Cliff













Mike Sechik Frood-Stobie



Noel Shrigley Copper Cliff



Frank Seguin Frood-Stobie



Eli Simon Frood-Stobie



Martin Sekeruk Frood-Stobie



Fred Sloan Frood-Stobie



Steve Severinski Copper Refinery



Alfred Smith Frood-Stobie



Robert Sharpe Copper Cliff



Clem Smith Frood-Stobie



Frood-Stobie



H. W. Smith Murray



Robert Snider Copper Refinery

Victor Stone

Garson

Harold Taylor

Copper Cliff

Victor Tremblay

Creighton



Walter Snowden Copper Cliff



Mike Spanovich Copper Cliff



Fred Stacey Coniston









Creighton



Copper Cliff

Camille Tremblay Copper Cliff



Cyril Varney Frood-Stobie



Douglas Thom Copper Cliff



Wm. Trotter Copper Cliff



George Thorpe Copper Cliff



Arvo Tuuri Creighton



Paul Tomchek



Walter Twardy Copper Refinery









Juho Valiaho

















Jack Vickers Copper Refinery



Jack Webster Frood-Stobie



Pat Villeneuve Frood-Stobie



John Weir Copper Cliff





Norman White Frood-Stobie



John Vrhan Frood-Stobie



Mato Wibanek Open Pit



John Warenda Frood-Stobie



Charles Williams Garson



Page 11

Aaron Warren Open Pit



Carl Wilson Copper Refinery



Bert Wood Copper Cliff



Ernest Woods Copper Refinery



Aubrey Wright Copper Cliff



David Wright Garson







Mike Yla Open Pit





Frood-Stobie



draw forth umpteen flies - dry flies that is anywhere in the United States and Canada choose one. This process often takes up to 15 minutes.

Then comes the art of the situation. His line snakes out over the water. . .the fly floats down and dimples the surface it rests there, drifting on the current, a spent insect. The angler's face lights up with sheer enjoyment at the conclusion of a perfect cast. In most cases the little matter of catching fish is secondary to this attainment of perfection.

It doesn't particularly matter to him if the trout are not taking dry flies that day because they are feeding at the bottom of the stream. Even if men using worms, wet flies and nymphs are having a bonanza, he will stick to his dries to the end, smiling calmly with the air of a superior being when his faith is justified.

He gets his share of fish his way, and is satisfied. The dry fly man is a fanatic, but he is also an artist who has mastered his art. ing?"

TRANSOCEANIC CABLE

The laying of the world's first transoceanic telephone cable, linking North America and Europe, was started early this year. More than 2,000 miles in length, it will span the Atlantic Ocean between Newfoundland and

-and after another minute's consideration to talk to those in Europe as if they were making a local telephone call, as it will not be subjected to atmospheric disturbances, such as electrical storms and fading, that sometimes interfere with existing communications by radio circuits. Due to the fact that the human voice will not carry a great distance over wire, repeaters or "boosters" will be built into the cable every 40 miles. In these repeaters will be special amplifying tubes with oxide-coated nickel cathodes which may operate continuously on the ocean bottom for as long as forty years.

NO ILLUSIONS

An Indian named Big Smoke was employed as a missionary to his fellow Smokes. A white man asked Big Smoke what he did for a living.

"Uh!" said Big Smoke, "me preach."

"That so. What do you get for preach-

'Me get \$10 a year."

"Well," said the white man, "that's pretty poor pay." "Uh," said Big Smoke. "Me pretty poor

preacher."

He who goes with the wolves learns to

Mike Yrcha



Fly Fisherman

By PETER WHELAN

If anybody ever sets out to make a list of the types of fanatic there are in this world he would find high on his list the tag "dry fly purist". Anglers as a whole are a rather unbalanced lot, willing to endure all varieties of miserable weather for the sake of a few fish, but the dry fly man comes in a class all his own.

According to him the only sportsmanlike and moral way to catch trout is with a dry fly-one which floats on top of the water. Any other method is relegated to the trash heap as being below the dignity of Man --this man anyway. A wet angler is a commoner, in his royal opinion; anyone who resorts to spinners and spoons is a churl; and the one who uses worms. . .ugh.

You will most often find this man before dawn along the banks of a trout stream, hand on his jaw, considering the water with a philosophical air and a frown of concentration by turn. Then he will reach into numerous pockets, bags and crannies and Scotland. The new cable will enable people howl.













Biggest Attendance in History at Windy Lake Camp



At a general assembly before swarming into Windy Lake for the first swim of their five-day stay in camp, these cubs hear instructions from Scoutmaster Art Gobbo. Non-swimmers went to a separate beach. In the picture on the FRONT COVER of this issue of the Triangle, Scoutmaster Gobbo shows the procedure of the flag break to Phillip Godon of Lockerby, Allan Larocque of Lively, and Denis Poirier of Minnow Lake.



"The first 24 hours are the hardest, men," says Scoutmaster Art Gobbo as he encourages Jackie Young and Billy Trezise, Lively cubs who were most unlively, to look on the sunny side. Whether it was indigestion or homesickness that confined them to their wigwam, they were soon right back in the swing of camp life again.

262 Cubs, Scouts Had Fine Outing

With the world jamboree at Niagara-onthe-Lake putting Scouting squarely in the spotlight, the Nickel Belt organization played its part by turning out the largest attendance in its history to the annual camp at Windy Lake.

Blessed with almost perfect weather throughout its schedule from July 18 to August 20, the camp was attended by the record total of 262 boys — more than 200 of them cubs — many enjoying for the first time the thrill of life in the great outdoors.

From a territory bordered by Burwash and Capreol the annual outing drew enthusiastic troops of scouts and cubs who made full use of the facilities at the fine permanent campsite maintained by the Sudbury and District Boy Scout Association.

Into the carefully supervised program of activities was crammed lots of sports, badge work, grub and sleep, and at the end of his holiday under canvas every boy was better in both body and mind.

A typical day at the camp commenced at 7.00 a.m. with roll call and a few minutes of physical jerks to take out the kinks, then wash-up and a hearty breakfast. Next came tidying up in the tents, after which the boys put on their uniforms for flag break and morning prayers. Various phases of badge work followed, then a swim and a free period until the noon-day meal. The hour's compulsory rest after lunch was followed by organized games, trail hunts, learning crafts. swimming, and instruction in boat-handling. Then came another welcome call to the cookhouse, after which there were more

Installing the Massive New Ore Hoist at Murray Mine



games and pranks until it was time for the crowning event of the day, the camp fire. As the leaping flames subsided and the glowing embers cooled, peace and contentment permeated the entire camp and all hands finally turned in with a warm sense of well-being and comradeship.

The scouts remained at camp for a 10-day period and the cubs stayed for five days. The last group of 38 cubs from Minnow Lake, Lockerby and Lively broke camp in time for some of the leaders to attend the world iamboree.

Administration of the camp was handled by a competent staff headed by Scoutmasters Len Shore, Art Gobbo, and Wm. Francis, with Mrs. Gobbo as unofficial camp mother.

HARD ON THE THROAT

"Pilot to control tower! Pilot to control tower, I'm coming in, please give landing instructions."

"Control tower to pilot! Control tower to pilot! Why are you yelling so loud?" "Pilot to control tower! My radio is on

the blink!"

THE REAL STUFF

Sign in baker's shop window: "Pies like mother used to make, 30 cents."

- 60 cents.'

Like those recently installed at Frood-Stobie and Levack, the new ore hoist now being set up at Murray Mine will hoist 15ton loads of ore in bottom-dump skips at

ton loads of ore in bottom-dump skips at 3,000 feet per minute. These hoists are among the largest in the world. The Murray hoist, its 14-foot-diameter tandem drums driven by two 3,000-h.p. d.c. motors, will be controlled automatically from the loading pockets on 1650 and 3000 levels.

Shown above is a scene during the installation. At the left Les Collins is working on the electrical hookup of the consol, from which the hoist will be controlled when it is changed over temporarily to manual operation.

At the right Arvi Hautamaki, electrician, and Dave Simons, machinist, are making adjustments to one of the two Lilly con-trollers which are driven from the hoist drums through trains of gears and shafting. A combination of electrical and mechanical components, this equipment provides overwind and underwind protection, approach warnings as the end of travel is reached, speed control, and control of the rate of emergency brake application, along with other important safety features.

The part of Canada that leads in fur production is not one of the less-densely popu-"Pies like mother used to think she made lated provinces but Ontario, which has the greatest total population.

MANAGEMENT CHANGES

Important changes in the management of Inco's operations in the British Isles have been announced recently. G. Archer, C.M.G., has been elected managing director of the Mond Nickel Company in succession to L. K. Brindley, who becomes deputy chairman of both the Mond and Wiggin boards. I. A. Bailey, who continues as managing director of Wiggin and as a Mond director, has moved to the London head office to join, with Mr. Archer and Dr. L. B. Pfeil, O.B.E., F.R.S. a London management group.

In order to devote more time to his new responsibilities, Dr. Pfeil has been succeeded as manager of the D. & R. Department by F. Dickinson, R. A. R. Hill has been elected a director of the Mond company and comptroller of the Mond and Wiggin companies. F. B. Howard-White joins the board of Wiggin and becomes secretary of both companies. J. Hitchcock has been elected sales director of the Mond company. A. P. Hague continues as a director of both companies and Dr. A. G. Ramsay as Mond director, resident at Clydach.

INCOMPATIBLE

Clergyman - "I brought back the secondhand car I bought from you last week. It is too obstreperous."

Dealer-"What's wrong? Can't you run it?" Clergyman-"Not and stay in the ministry."





At the left above was a general view of the Calyx drilling setup at Levack last spring, with the rotor table in drilling position. At the right two men were removing the bulkhead prior to lowering the 20-foot core barrel with its steel drilling shoe or bit attached. When the barrel was filled the yard-wide core was broken by wedging or blasting and then lifted out of the hole for disposal.



Here chilled steel shot was being loaded into the 4-inch sectional pipe which rotated the core barrel and bit. Washed by water down into the bottom of the hole beneath the rotating bit, the shot was instrumental in cutting a ring from 2½ to 3 inches wide. On the right a section of the huge core was being examined by the mine engineer, Earl Gilchrist, and a member of his staff, Herb Young. Released from the core barrel the big chunks were dragged to a disposal area which now looks like an elephant graveyard.



From the gravel pit on the west side of Levack an 80-ton locom otive hauls 8-car trains of fill to the dump at the calyx hole.

Used Calyx Drill First Time Here

Something new they tried in Inco mining this year is the king-size drill hole completed from surface at Levack. Three feet in diameter and 308 feet deep, it is being used to deliver gravel fill to a block of stopes which have been mined by the blasthole method. In contrast to the usual fill raise driven

In contrast to the usual fill raise driven from underground by conventional mining methods, the yard-wide fill hole was drilled with a Calyx core drill, sometimes called a shot drill. Since its introduction from Australia about half a century ago, this type of drill has been tested by many special assignments such as the one at Levack. Although its operators had no previous experience in drilling norite, they were able to make as much as 18 feet of the huge core in a 24-hour period.

The bit of the drill, attached to the core barrel, was rotated by a sectional pipe driven by a 160-h.p. diesel motor. The bit, made of mild steel rolled into cylindrical form, had several inclined slots cut in the lower edge. Chilled steel shot was fed into the pipe along with water and carried by the latter down the inside surfaces of the bit, through the slots, and under the cutting edge. The weight of the rotating bit on the shot caused the cutting action. Only enough water pressure was used to remove the rock cuttings to a calyx or sludge receiver at the top without disturbing the heavier shot.

The big drill hole is located about one mile east of No. 2 Shaft. Since gravel spreads to a flatter angle when wet, a water spray has been installed at the car dump above the hole.

From this calyx, or receptacle, at the top of the barrel the drill takes its name.

SO THE MAN SAYS

Walking up to the ticket window at the rocket station, the man asked for a seat to the moon.

"Sorry, sir," said the attendant, "but all passenger flights have been cancelled for a couple of days."

"Oh? Why is that?"

"Well, the moon is full right now."



The 25-cu. yd. cars are dumped by compressed air supplied from the locomotive.



Down the steel-plated chute and into the calyx hole runs the gravel fill.

SNAPSHOTS of life with inco



Received with keen satisfaction by his colleagues was news of the conferring by his alma mater, Queen's University, Kingston, of the honorary degree of doctor of laws on J. Roy Gordon, Inco vice-president.



Unusually interesting — as well as interested — visitors at the Copper Cliff reduction plants were 53 officers and cadets from the College Militaire Royale at St. John, P.Q.



Many an ex-boy will suffer twinges of nostalgia on viewing this summer scene near Levack. The clam hunters are Rudy Gross, Eddie Kelland, and Roger Lahey.



Fans of television's Disneyland might think that here we have two fearless fellows subduing the glant squid. No such wild excitement for Don Bray and Don Ripley, though; with a hose test pump they're carrying out a routine check at Copper Cliff of some of the 80,000 feet of hose in Inco's fire-fighting setup. This test for leaks or weaknesses is made regularly at all plants.