


Late in December, the Foundry shipped 35 tons of 4 -inch to 10 -inch expansion rings to a Canadian firm. The rings are used in long lengths of pipe to counteract expansion and contraction.

New patterns were made and molding procedure changed so that 9 castings could be made from one mold instead of the normal number of 1 or 2 castings.

New tram cars are being constructed at the Machine Shop for Osceola 6 and 13 Mines in preparation for opening of these shafts. The order is for 40 cars.

An all-time hoisting record of 142 skips in one shift was set at Seneca Mine in December. An oil burner had been temporarily installed in the mine's boiler house, and more uniform steam pressures, combined with efforts of underground personnel, made the record possible.

A pilot mill has been set up in the old Drill Bit Plant to test small quantities of sand from several old mines. Results of these tests will show if the sands contain enough copper to make large-scale treatment feasible.

Man cars at Osceola 6 and 13 Mines are equipped with two-way telephone systems for communication with surface, replacing the bell systems now used in other Division mines.

Matt Brunskola, Ahmeek No. 3, recently went rabbit hunting with two fellow nimrods. When the men returned, they had 3 walleyed pike. Apparently, the rabbits weren't biting.

- The Hubbell Fire Department is giving a sauerkraut supper at the Hubbell Community Building February 20 , starting at $5: 30 \mathrm{p} . \mathrm{m}$. The cost will be $\$ 1.25$ per plate.


## RED METAL Tlews

Published monthly at Calumet, Michigan, by and for employees of the Calumet Division, Calumet \& Hecla, Inc.
Editor............................................ Priebe Artist-Photographer.....Lauri Leskinen

February, $19: 5$

## News Highlights . . .

## Pumping Begins In Osceola 13 Shaf

PCMPING OPRRATIONS on the Osceola mwatering project entered a new stage January 2.2 when the motor was started on a special incline submersible pump, located 405 inclined feet below the water level in Osceola No. 13 shaft.

This point is about 40 feet below the 28 th level in Osceola 13, and it will take an estimated 30 to 35 days to pump out the over 200 million gallons of water which lie between the 25 th level-the January water line -and the 28th level.

Mounted on a special skid, attached to the hoist cable, the pump was started down the shaft January 19. A heavily-weighted man car had first been run down the south compartment of the shaft to clear away underwater debris. Heavy obstructions were located 408 feet below the water level, but these can be removed when the unwatering has reached the present pump location.

The exacting task of lowering the pump and 500 feet of column pipe was accomplished in 40 and 20 -foot stages. One length of pipe and then another were attached and placed on skids until the pump and motor were 500 feet from surface. Then, with miners walking along to keep a close watch, the entire assembly was skidded down the remaining 2,300 feet to the water.

The new crosscut (see page 8) provides a passageway for the water to flow to the Conglomerate lode. A dam has been built in the crosscut to prevent water from flowing back into the 24 th level of Osceola 13.

Earlier, on January 14, a $71 / 2$-ton, 2,300volt cable had been lowered into the shaft on skids. It supplies power to the pump's 350 horsepower motor.


SANTA WAS THERE-It's not too late to recall the past Christmas season, and these emplogees at Osceola No. 6 had just finished distributing presents when our photographer stopped by. Back row (left to right) are Jack Rowe, Sulo Paavilainen, Bill Daley, Louis Brinkman, Ken Bylkas and Pete Fink. In the front ate Ed Strand (left) and Virgil Geshel.


DOWN THE SHAFT-When this picture was taken, employees were almost ready to start the special submersible pump on its way down Osceola No. 13 shaft (notice the $201 / 2$ foot skid on which the pump is riding). Fourteen feet, 8 inches long, the pump is now discharging about 5,000 gallons of water per minute. It is the first of its kind to ever be used. Watching the lowering operations are (left to right) Greg Bracco, Reggie Day, of the Bryon Jackson Co., manufacturer of the pump, and Rudy Putansu.


EASY DOES IT-In completing repair work on the Peninsula hoist in 19 work days, crews had to move sections weighing as much as 18 to 20 tons. Shown during one of these operations are (left to right) Frank Columbo, Fred Posey, John Jackovich, Swandi Harju, Dan Erickson and Tony Stukel.

## About the Cover



OUR FEATURE story for February is about the Division's Foundry (pages 4 and 5), and Lauri Leskinen's cover illustration uses the large pouring ladle and its stream of molt metal as a focal point for depicting some of the Foundry's varied operations. The story of the Foundry is both interesting and significant. Once merely a supplement to the Division's mining operations, the Foundry is now a self-supporting and rapidly growing unit. It will be an important factor in future plans for diversification and expansion.

## Hobby of the Month

## It's a Family Matter for the Willmers

HOBBIES ARE a family proposition for Mr. and Mrs. Bd Willmers. And they work regularly at their hobbies, which makes spare time a phrase seldom used in the willmers household.

Painting is Ed's pastime. Mrs. Willmers does leather craft. Examples of their work, of which both are justifiably proud, attest to long hours of careful effort.

Mrs. Willmers has been doing leather work for 3 years, ever since classes in this craft were conducted at the Calumet High School. She has completed more than 50 different articles, ranging from ornate billfolds and purses to holsters, secretary wallets, belts and mocassins.

Tools of various sizes and shapes are needed for the cutting, stamping, punching and edging involved in leather work. "I have over 40 tools," Mrs. Willmers says, "and Ed has made many of them for me." (One device devised by Ed is a particular timesaver. It allows Mrs. Willmers to punch 3 holes in a strip of leather at a time instead of the one possible with standard equipment.)

Mrs. Willmers buys her leather and the patterns from which impressions are made. He says it takes a week to make a lady's handbag, working an average of an hour or two each day.

It has also been 3 years since Ed took up painting seriously. but his first interest in the subject goes hack a lot further than that.

He recalls that back in the grade school days, when the teacher read stories to the class, he would imagine what the setting of the story looked like, and then go out and paint it.
"I painted my first picture when I was 11


IT WORK-The usual scene might be somewhat different from this, but Fd and Mrs. Willmers often work at their hobbies together. Here, Ed is working on a picture of the Hungarian Dam and Falls, the source of water for the old Tamarack Mills. The picture in the foreground shows one of the original Osceola Mines, as it appeared in 1901. Mrs. Willmers is working on an ornate leather seat for a stool, or TV chair.
years old," Ed says, "and some of the water colors 1 did in school won prizes at the Houghton County Fair.
"After I got out of school, I kept at painting off and on, but it wasn't until 3 years ago, when I decided to take some lessons, that I actually got into it.'

Ed estimates he has painted about 35 pictures in all, and he has one he painted 29 years ago, using ordinary outdoor housepaints in place of more expensive artist's paints. It is a western scene, set in a mountain canyon.

There is an interesting sidelight to Ed's hobby-he does some painting of Copper Country scenes on beach rocks. They make attractive paper weights or door stops. Ed occasionally departs from the usual canvass material to paint on glass, using water colors.
"It takes about 10 hours to paint an average picture," Ed reports.

Now a group leader at the Tamarack Reclamation Plant, Ed has worked for the Division since 1942. One of his painting projects for the future involves pictures on how families used to spend weekday and Sunday evenings.
"It would make an interesting comparison with today," Ed says.

## News Notes

## CENTENNIAH, MENE <br> Donald Borgo, Reporter

When repair work on the steam hoist forced a temporary shutdown of Peninsula Mine, Wilbert, Bill and Henry Thomas were among employees transferred to Centennial Mine. There they joined a fourth brother, Bob, a regular Centennial employee. Having 4 brothers working at one time must be some sort of record for a single shaft.

## SMELTER AND SECONDARY MATERIALS

Carl Deiro and Ransom Cundy, Reporters
Smelter office employees and supervisory personnel gave a party January 14 for $C$. W. Jilbert, former director of smelting and refining, who will retire in June. He has worked at the Smelter since 1914, and is now serving in an advisory capacity.

Theophile Beaudoin and his wife recently spent two weeks at Duluth.

Sixteen-months-old Robert Vairo, son of Mr. and Mrs. Bob Vairo, won honorable mention in a recent national baby contest. His picture was among thousands entered.

## AHMEEK BOILER HOUSE AND POWER PLANT

## George Bashaw, Reporter

Two water softeners installed at the Boiler House will eliminate the need for 3 of the 4 inspections and cleanings which have been made each year of the water

D.MD'S HELPER-Firnest Oinas, Centennial Mine, doesn't have to perform alone the job of cleaning snow from his driveway. He has a willing helper in daughter Vicki.
sides of the boilers. The softeners eliminate many of the solids which previously precipitated from the water and formed on the sides of the boilers. Eliminating this residue will also increase the pounds of steam pressure possible per hour from each boiler from 70,000 to 100,000 .

Reuben Davey is now in training as an auxiliary operator at the Boiler House. He tormerly was with the Construction Department.

NO. 4 KEARSARGE
Rudy Kastelic, Reporter
A piece of mass copper was found in Kearsarge January 3rd. It was the first such find at the mine in 6 months.

RALLROAD
Ray Gipp, Reporter
As this is written, Giles Menzies is recovering well following an operation. His (Continued on Page 6)


FOR SALE
Fruit trees or shrubbery for spring planting. Phone Dona Poisson, 6-2691, Hubbell.

Cocker Spaniel puppies. Call Paul Peaden, Lake Linden 6-2606.

Thayer baby buggy. Like new. Phone Calumet 1883 .

Four-wheel, factory-built utility trailer. Also building materials. Ed Matson, Houghton 2743-J.

## WANTED TO BUY

12-guage Magnum shotgun. Reuben Dulong, Lake Linden.



(ED. NOTE-Here are some recipes and household hints for the ladies of the family to try. If you have favorite recipes, or special time and work savers, send them to: The Editor, Red Metal News, Industrial \& Public Relations Division. We'll use this space each month to pass them along to other homemakers.)

COCONUT OATMEAL MACAROONS
1 c. brown sugar
1 c. granulated sugar
1 c. shortening
2 eggs
2 c. sifted flour
2 tsp. baking soda
$1 / 2$ tsp. baking powder
1 tsp. salt
1 tsp, vanilla
2 c. oatmeal
2 c. coconut
Cream sugar and shortening, add eggs and vanilla. Combine dry ingredients aint add to creamed mixture. Mix in oatmeal and coconut. Roll hatter into small balls, and flatten or press with a fork. Bake at 400 degrees until brown.

## SPECIAL FRUIT SALAD

1 tbsp, unflavored gelatine
$1 / 4$ c. cold water
2 c. fruit cocktail
$1 / 2$ c. mayonnaise
1 c. heavy cream, whipped
$1 / 3$ c. maraschino cherries
Soften gelatine in cold water; dissolve over hot water in double boiler; cool slightly. Add fruit cocktail with syrup. Fold in mayonnaise and whipped cream. Pour into refrigerator tray and dot with cherries. Freeze until firm, or chill overnight in refrigerator.

## DATE PUDDING

2 eggs, beaten
1 tsp. baking powder
1 c. sugar
Dash of salt
1 c. dates, chopped
1 c. pecans or walnuts, chopped
4 tbsp. fine graham cracker crumbs
Beat sugar into eggs, add other ingredients. Pour into greased pie pan and bake at 350 degrees about 25 minutes. Serve with whipped cream or ice cream.

Add household ammonia to the water when you're scrubbing floors or woodwork. Makes the job much easier and faster.

## Employee News Notes

(Fr m Page 3)
fellow workers wish him a continued speedy recovery.

## TAMARACK RECLAMATION PLANT

## C. J. Miller, Reporter

Paul C. Lanctot is back with the Lake mechanics after 4 years in Europe and Africa as a sergeant with the Air Force.

Alphonse (Shorty) Baril has joined the plant staff.

Leo Marcotte has returned to the job after 6 weeks on the sick list.

Clarence Mills and Ed Wilkowski have been transferred to the Lake Linden Leaching Plant.

## IROQUOIS MINE

Herman Beiswanger, Reporter
If any of the gang have a chance, why not visit John Lehtola. John is ill and will be at home for some time.

Delmar Walters is eyeing April 23. He reports a wedding is scheduled for that day.

## ALLOUEZ NO. 3

## Sven Sjogren, Reporter

Mr. and Mrs. Emil Anderson celebrated their 25 th wedding anniversary January 18.

Panl Grose recently underwent an operation at Memorial Hospital.

PIROJECT AND SPECIFICATIONS ENGINEERING
Jim Rovano, Reporter
George Mehrens and Art Poyhonen re. cently made out-of-town trips to inspect foundry equipment used by other companies.

At this writing, Miss Hazel Bennetts is home on sick leave. The department sends along best wishes and the hope she will be back soon.

The Drafting Department played an im-
portant role in the Division's recent diving operation, making drawings which showed the route the divers should follow to reach the valve, designing the reel divers were supposed to attach to the valve, supplying drawings of the valve and wheel.

## AHMEEK MILL

## Sam Kuusisto, Reporter

A temporary emergency arose at the Mill early in January when the 250 -horsepower motor on No. 3 ball mill burst into flames. The fire was extinguished before further damage could be done. The motor has been replaced but is being repaired,

## LAKE LINDEN POWER PLANT

 Joe Turk, ReporterEmployees at the Lake Linden Power Plant have worked for the Division a total of almost 600 years, or an average of 26 years per man. Six of the employees-Gilbert Bisson, Les Burgan, Adelard Jobin, John Kus, Alfred Cassette and Lincoln Williams-have a 40 -year average.

Ray Rock, son of Mr. and Mrs. Ernest Rock, has enlisted in the Air Force. He left for active duty January 19. Ernie is an operator at the Ahmeek Boiler House.

Recent hospital patients were Mrs, Caleb Killmar and Mrs. Joseph Turk.

Ovila Rivest has retired after 30 years of service with the Division.

## SECURITY DEPARTMENT

Frank Suino, Reporter
Mr. and Mrs. John Birk, Sr., in January celebrated their 65 th wedding anniversary. Betore his retirement in $1933, \mathrm{Mr}$. Bir had been employed by Calumet \& Hecla fod 50 years. A son, John, now works for the Security Department. A son-in-law, Howard Trudgeon, is an employee in Motive Power and Edmund Dupuis, whose wife is a granddaughter, works at the Lake Linden Lab.


FIRST-AID (LASS-Employees pictured above recently received certificates for successfully completing an 18 -hour course in first aid, conducted by the Burean of Mines. Posing for the camera during one of the classes ar (back row, left to right) Raymond Klein, Preston Richards, George Gedge, Joe Franks, Matthew Pomroy, Carl Diero, Lawrence Allen, Anniable Spagnotti, (larence Dwyer, Pete Muvrin, Frederick Stahl. Second row (left to right) are Ted Heikkinen, Edward Aja, Raymond Rost, Eino Waananen, Roland Baril, Bob DeNault, Rudolph Yoki. The two "patients" in the foreground are Jack Pastor (left) and Henre Carpenter. Not shown is Ray Dusseault.


Safe Sam and Careless Cal, the two Division employees we introduce here, are similar in many respects. At this particular time, both are working on surface. Both are married. Both have families. Both consider that they are skilled at their jobs.

Both smoke, too, and their habits in this respect illustrate one fact which makes the two employees quite different, despite all the things they have in common.

Take the other day.
Sam was working at the Smelter. He lit a mid-morning cigarette just about the time his foreman asked him to check something in the oil room. Sam nodded and made his way across the Smelter. At the door to the oil room he took a last puff on the cigarette and carefully crushed it out. He didn't even have to look at the "No Smoking" sign.

On the same day, Cal was working at the Roundhouse. There was a repair job to do ©n a truck. Cal lit his favorite pipe, took a couple long puffs, opened the hood and leaned in to have a look.

BOOM! If this weren't fiction of a sort,
 that might have been the end of Careless Cal. But we're going to make him lucky, as he's been in the past. Cal's had plenty of accidents of one kind or another. We'll tell you about them in future months.

For, unlike his fellow worker, Sam, Cal doesn't think about working safely. It never occurred to him that a pipe or cigarette can be a lethal instrument when you're working on a truck motor. Cal has to be reminded about safety, and there isn't always someone around to remind him.

## HONOR ROLL

The following divisions did not have a lost-time accident during December, 1954:

MINES-Osceola No. 6, Osceola No. 13, Caledonia, Allouez.

OPERATING SERVICES - Railroad, Trucking, Construction, Maintenance, Electrical, Boiler Plant, Power Plant, Drill Shop.

SMELTER-Refinery.
FOUNDRY
MECHANICAL-Calumet Machine Shop, Calumet Blacksmith Shop.

STAMP MILL
CHEMICAL-Lake Linden Leaching Plant, Tamarack Reclamation Plant.


MOVIE TIME-This picture was taken at a recent gathering which featured movies of the Osceola diving operation. It was attended by employees and their wives. First row (from front to rear) are Art sutinen, Mrs. Sutinen and Mrs. Gilbert Beaudoin. Second row (front to rear) are Mrs. Dan

Erickson, Mrs. Lauri Leskinen, Mrs. Putansu and Rudy Putansu, Wally Heikkila and Mrs. Heikkila, and Bill Bal. The last group (front to rear) includes Clarence Yates, Oscar Archambeault, Mrs. Yates, Mrs. Bal and Tony Bracco.

## Foundry Story <br> (From Page 5)

Foundry on the outside market in a short period of time.

The Foundry is now capable of making castings which range from cylindrical rolls weighing over 20 tons to small thumb screws weighing less than one-tenth of a pound. In addition to floor molds, molds are accurately made on 3 different types of machines. Sands for molding and for cores are mechanically prepared to provide the highest quality. The pattern shop has an inventory of over 35,000 patterns, from which molds are made.

And, of course, ingenuity remains an essential quality in competition, even in the mechanized world.

The joh of making a 22-ton cylindrical roll is a good example. In order to lower the mold enough so that metal could be poured in from above, it was necessary to dig a pit 17 feet below floor level. This was complicated by the fact that the workers hit solid rock 6 feet down. But here, the Mining Division was called on for help, and miners drilled holes and blasted out the rock.

It took half an hour for dust to settle after the explosion, but the pit was down to the correct depth and was almost perfect!y square at the bottom.

The huge casting-large for any foundry -was then made and shipped to the customer. Two cranes were needed to move it and two cranes were used when the metal was poured into the mold. Along with this job, 29 other rolls of various sizes were made for the same customer.

In the last year, the production of NiHard grinding balls has become a major item in Foundry operations, and a rapid sales growth is expected for this program. An alloy with high abrasion resistance, NiHard is extremely well suited to the manufacture of grinding balls. Other firms are making the same product, but tests have shown the Foundry's product to be competitive with any on the market. With increased sales, the Foundry's production capacity for grinding balls has increased almost 4 times since the program got underway.

And so a pattern for the future is being set. The Calumet Division will not be known just as a mining enterprise. It will be in foundry products and other fields not directly connected with mining.

The key will be modern methods, which provide quality products at low cost. This diversification and modernization will enable the Division not only to maintain operations for many years, but to grow.

In the long run, it will provide more jobs and more secure jobs, both in mining and other fields.


UNDRRGRO(NO) persomblat have been responsible for many outstanding achievements in the Cahnmet Division's 90 - year history, and one of the finest of all was recorded in the 28 days between December 16 and January 13, when the men pictured here cut a 750 foot crosscut between Osceola No. 13 Shaft and the Conglomerate Lode.

There were only 25 work days in this period- 75 shifts-and considering that it was possible to use only two miners, one scraper and one leader on each shift, this time represents a record difficult to surpass.

The crosscut measures 5 feet by 6 feet. and the average advance for each 24 -hour period was 30 feet. The maximum distance blasted in one day was 35 reet.

Help in this record-breaking advance came from Head Mining Captain Oscar Archambeault, the regular crew at Osceola No. 13-Sam Laakso, Mervin Korby, Earl Manninen, Barney Sandretto, Bill Pakkala, John Kingman, John Anicic, Ludvick Beljan and Bill Lahti-Jack Rowe, shift boss at Osceola No. 6, and personnel of the Machine Shop, Electrical Department and Engineering Department.

## Top Record Written Into Division Annals By Crosscut Crew

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