

Northwestern
SINCE 1879
Sterling

The Lightning Bolt

NORTHWESTERN STEEL AND WIRE COMPANY · STERLING, ILLINOIS 61081

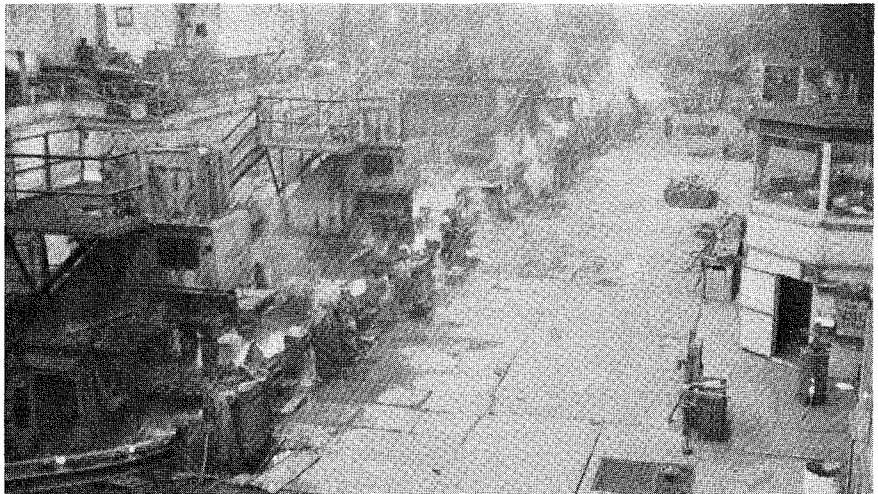
Goal: Full Capacity Production

Northwestern Steel and Wire Company begins to see a bit of "light at the end of the tunnel" after four years of red ink, as a small profit is realized in two successive quarters. However, the Company has no intentions of lurking in the dark to see what happens next.

Company President **Robert M. Wilthew** has made one thing clear to Northwestern workers and members of the local community in recent published newspaper interviews — Northwestern is going to push forward in an attempt to reach full capacity steel production.

Wilthew and his staff met in a two-day-long sequestered session recently to discuss the direction the Company will take to attain the full capacity utilization goal. Another session is planned in the following months.

At stake is the future of the Company amid a hostile environment, which has seen a flood of imported



Shown is Northwestern's 12-Inch Mill, one of three rolling mills which are currently producing near capacity. The Company is trying to determine how best to utilize a steelmaking capacity that exceeds current rolling capability by about 1 million tons a year.

"We have idle furnace hours in every 24-hour period, although our rolling mills are going almost full-out."

— Company President
Robert M. Wilthew

steel into the American marketplace and prices of heavy structural steel remaining at aggravatingly low levels.

Northwestern, with the largest state-of-the-art electric furnaces and casters, can produce 2.5 million tons of raw steel per year, but only about 1.3 million tons can be consumed through its current rolling mills and turned into finished product. That leaves a deficit of about 1 million tons of excess steelmaking capacity.

"We have idle furnace hours in every 24-hour period," Wilthew told a Sterling *Gazette* reporter, "although our rolling mills are going almost full-

out. We might be able to squeeze another 10,000 to 15,000 tons a month out of our three rolling mills, which isn't sufficient to meet potential market demands."

Among the alternatives that Wilthew and his staff will be evaluating will be the feasibility of: 1. Setting up another rolling mill in Sterling; 2. purchasing an existing rolling mill elsewhere and producing finished products at that site; 3. purchasing an existing rolling mill or machinery and moving the equipment to Sterling; 4. selling semi-finished steel to other companies that have the rolling capacity but not the steelmaking capacity.

While added rolling mill capacity would solve one problem, it would create another.

"We would have to look at the capacity of our two continuous casters. They aren't large enough to accommodate significantly expanded rolling mill capacity, so we may need to consider the addition of a third caster,"

Wilthew said.

The major consideration for any of the possible alternatives will be finances. The installation or purchase of a rolling mill and/or the installation of a third caster would require millions of dollars.

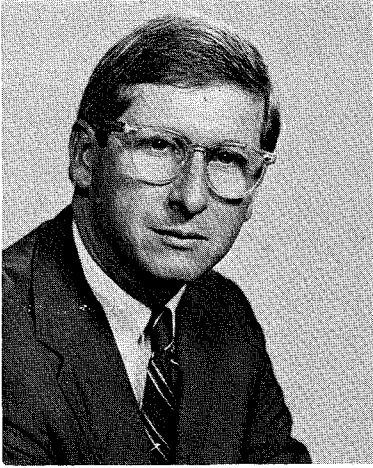
With only small earnings over two quarters, Northwestern does not have the money in hand to finance such projects, but it does have "accumulated credit."

In a last-ditch effort to help Northwestern, Chicago financial institutions granted a \$60 million line of credit shortly after Wilthew became president. Of that total, \$40 million was in the form of a revolving (use it as you need it — pay it back as you can) fund, while \$20 million was a fixed loan.

"Today," Wilthew reports, "due to our ability to re-attract our lost market share, we are not using the revolving loan, and have significantly reduced the fixed portion. From that perspec-

(continued on page 6)

Haven-Busch Builds Towards Success



John H. (Jack) Busch
President, Haven-Busch Company

When Haven-Busch began building upon its successes in the early 1940's as a structural steel fabricator, it was apparent to Company officials that there were two routes that led to the future.

One of those routes was to remain a relatively small fabricator in the business. A second option was to invest the Company's resources in an attempt to become a major force in the structural steel fabrication business.

Today, as evidenced by the Company's continued growth, Haven-Busch is one of the 30 largest structural steel fabricators among a field of over 1,200 companies in the United States.

Operating out of a 300,000 sq. ft. facility in Grandville, Mich., a suburb of Grand Rapids, the Company and its 250 employees produce fabricated steel for the industrial and commercial sectors.

The pride of Haven-Busch is its long-span trusses for the industrial sector. Its expertise in trusses, which is backed by a top-notch engineering department, makes Haven-Busch the forerunner in this niche of the steel fabrication sector.

"We were at a crossroads," **John H. (Jack) Busch**, President of Haven-Busch, said about the Company's decision to become a major force in American steel fabrication. "We felt we wanted to shoot for the market of the larger firms. We asked ourselves the question - 'Other than size what makes the big fabricators different -- what do we need to compete?'"

Busch said the firm identified three

major factors which stand out among the firms who do in excess of 20,000 tons of steel fabrication a year.

First of those factors was a strong engineering department. "You need structural engineers to design the connections or the fabricated product is not worth its salt," Busch said.

Secondly, Busch identified quality assurance as an ingredient needed to become a major steel fabricator. "All of the big companies have quality assurance management, quality manuals and inspectors. Many of the smalls do not have such programs." Busch, who is on the Board of Directors for the 400-member American Institute of Steel Construction (AISC) said the Company, when at the

crossroads, felt it was important to be AISC quality certified, something that for the most part, was the domain of only the bigger steel fabricators.

Thirdly, performance was thought to be a major factor needed to compete with the big steel fabricators. Today Haven-Busch addresses this very succinctly with its motto -- "On Time, All The Time. No Excuses."

"Our customers don't have time to hear excuses," Busch said. "They are busy people with deadlines. They want performance from Haven-Busch and they get it."

Busch said his firm has purchased steel from Northwestern since shortly after World War II and today purchases a full range of hot rolled structural shapes from Northwestern. "Northwestern has always done a good job for our customers. We feel that Northwestern is doing a good job of going through the painful transition that a steel company needs to do."

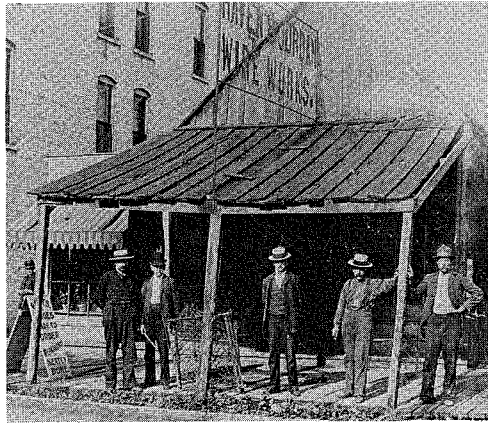
Northwestern's salesman servicing Haven-Busch is **Rick Brandt** and the inside correspondent is **Bill Stahr**.

A major project currently underway for Haven-Busch is the Mazda Motor Manufacturing/USA plant in Flat Rock, Michigan. A total of 1,520 tons of steel produced by Northwestern Steel and Wire Company is being used by this plant.

Other major Haven-Busch projects which utilized significant portions of Northwestern Steel were the General Motors Truck & Bus Group, Pontiac, Michigan in 1985, in which 720 tons were used, and the Double Eagle Steel Coating Company (a joint venture between Ford Motor Company and United States Steel Corporation), Dearborn, Michigan, in 1984-85, in which 850 tons were used.

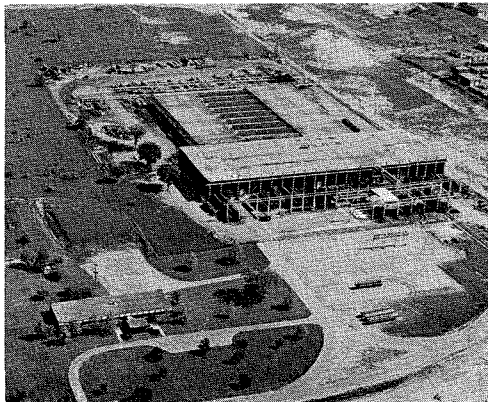
Though Haven-Busch has registered steady growth throughout the Company's history, it had a few rough years recently. "We are like the rest of the steel fabricating industry. We suffered through the recession of the early 1980's. But we learned to do things differently."

Busch said the Company is looking at fiscal 1986, which ends March 31 for the firm, as a record year in sales and earnings figures, which he says are attributed to the Company's concentration on improving itself.



Then And Now

Haven-Busch has grown from a fledgling enterprise in 1888 (top photo) to one of the top 30 steel fabricators in the United States. Today, located in Grandville, Michigan (bottom photo) the Company employs about 250 persons, who work at its massive 300,000 sq. ft. facility.



Mullen Named Vice President - Operations For Company's Merchant Wire Division



Mike Mullen becomes Northwestern's Vice President - Operations for the Merchant Wire Division.

★ ★ ★ ★ ★

Best Retirement Wishes

Best wishes for a long and happy retirement are extended to the following employees who have completed their years of service with Northwestern Steel and Wire Company, effective February 1, 1986:

- Otto Beer**, West Plant Pipe Shop, 32 years.
- Roberta G. Bell**, Drawing Room, 16 years.
- Charles E. Briggs**, Plant 4 Drawing, 31 years.
- Jeris Cox**, Private Payroll, Superintendent, 24-Inch Mill, 30 years.
- Reynaldo P. Garza**, 1 & 5 Lb. Packaging, 30 years.
- John Gould**, West Plant Electrical, 24 years.
- Richard Holby**, Plant 2 Welding, 30 years.
- Fred Howe**, Plant 2 Welding, 30 years.
- Luis Martinez**, 14-Inch Mill, 31 years.
- Garlin Massey**, Plant 4 Drawing, 26 years.
- Willie Peppers**, West Plant Pipe shop, 35 years.
- Jose Salas**, West Plant Pipe Shop, 30 years.
- James Sanders**, Private Payroll, Superintendent Wire Mill, 32 years.
- Charlie Stern**, West Plant Welding, 22 years.

★ ★ ★ ★ ★

Mike Mullen has been appointed Vice President - Operations for the Merchant Wire Division. His most recent position had been General Superintendent of Primary Steel.

His appointment took effect on February 1, 1986, following the retirement of **Jim Sanders**, Superintendent of Operations for the Merchant Wire Division. Sanders had been with Northwestern Steel and Wire Company for 33 years.

Mullen began his career at Northwestern in April of 1972, coming to Sterling from Great Lakes Steel in Detroit, Michigan, a division of the National Steel Group. A Sterling native, he graduated from Newman Central Catholic High School in 1965, and spent several summers working at Northwestern while in high school.

During his tenure at Northwestern, he has served as Raw Materials Supervisor in the Electric Furnace Department; Project Engineer on various capital improvement projects; and Chief Engineer and General Superintendent of Maintenance - Hot Rolled Division, prior to becoming General Superintendent of Primary Steel.

Mike graduated from the University of Illinois in 1970 with a degree in

Mechanical Engineering, and is a Registered Professional Engineer. He is registered in the State of Illinois.

He and his wife, **Susan**, have four children, **Mathew**, 18, **Christopher**, 15, and twins **Kevin** and **Ken**, 14.

Outside of his profession, Mike has been locally active in Little League Baseball, Knights of Columbus, Gyro Club, the Advisory Council of the Illinois School for the Deaf, Jacksonville, Ill., and the YMCA Board of Directors. He is a member of the Phi Sigma Kappa fraternity.

New Assignments

Effective January 27, 1986, **Robert Wainwright** is appointed Inspection Turn Foreman - 24-Inch Mill. Bob will carry Beeper No. 319 during his shift.

Effective February 11, 1986, **Bill Asbury** will assume the duties of Plant 2 Crane Mechanic Foreman. He can be reached at Ext. 426 or 476 and will carry beeper No. 118.

Effective February 18, 1986, **Gerald Hartman** is appointed acting manager of the 24-Inch Mill and **Jim Mangan** is appointed acting General Foreman of the 24-Inch Mill.

Guide Rollers To Set Rolling Mills On Straight Path

Northwestern Steel and Wire Company has taken a significant step towards cobble-free rollings on the 12-Inch and 14-Inch Rolling Mills with the addition of new roller guides.

The state-of-the-art equipment recently installed at each stand along the roll lines is helping to cut down on cobbles by better positioning the product as it speeds from one stand to another.

"We have wanted this equipment for a long time but it is very expensive," **Don Morgan**, Project Engineer said.

"The new roller guides are adjustable and utilize roller bearings. This helps us hold tolerances and minimize cobble problems."

Cobbles have long been a major nemesis to higher productivity and

yields at Northwestern's rolling mills.

With each cobble comes considerable downtime and product waste.



Loren Steder (left) and **Ben Martin** display two types of guide rollers currently in use at the 12-Inch and 14-Inch Rolling Mills. Use of the new guide rollers is expected to cut down on the number of cobbles on the roll lines.

Northwestern Personnel Files

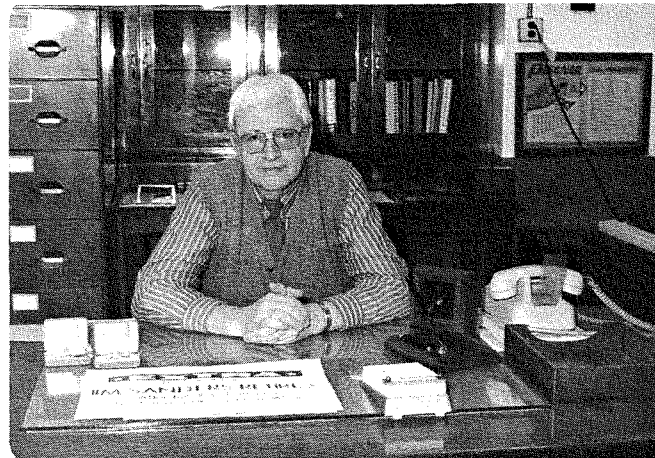
Ron Burgess

Ron joins Northwestern as a Computer Analyst Programmer in the Data Processing Department.

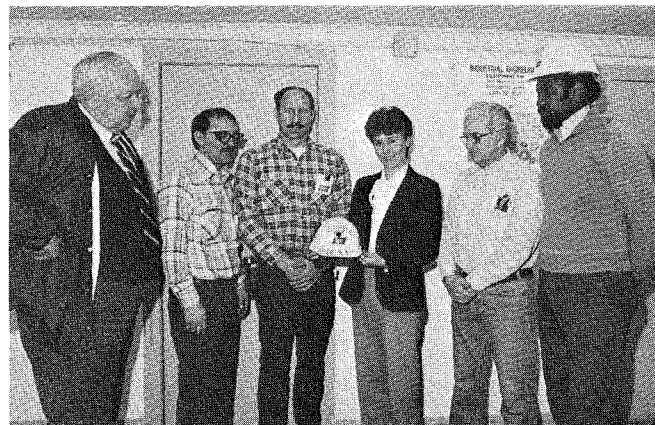
A 1978 graduate of Rock Falls High School, Ron, who is single, has a Bachelor's degree in Mathematics from Northwestern University.

Only 19-years-old, Ron holds the distinction of being the youngest person to ever graduate from Northwestern University. He also was the youngest full time student at Sauk Valley College, where he attended as a 14-year-old.

Currently Ron teaches two night courses in computer programming at Sauk Valley College.



Jim Sanders, General Manager - Wire Products Division, was showered with retirement gifts, including the wooden desk clock, money clip, cuff links and the gag news headline (all pictured) on his final day at Northwestern.



Linda Braun, a consultant with Kirkwood Consulting Associates, (fourth from left) accepts a customized hard hat from members of Northwestern Steel's E.I.T. Teams on her last day working with the Company's various participation teams. Making the presentation were, from left to right: Wendell Davis, facilitator, John Stauter, Lee Buntjer, Braun, Jim Bellini and Cedric Patterson.

Mike Quick

Mike Quick is the Hot Rolled Sales Department's newest sales correspondent and will be taking over Bill Ackert's accounts when Bill leaves to become an outside salesman.

Mike, who grew up in Rock Falls, has worked at Northwestern for 11 years, first as a demurrage clerk, then most recently as an East Plant shipping clerk.

A graduate of Illinois State University in 1973, Mike holds a bachelor's degree in biology.

He and his wife Kathy have two children, Cassie, 9 and Keri, 7. Mike said he enjoys bicycle riding and playing tennis.



Service Pins Again Being Awarded

Northwestern Steel and Wire Company has resumed presenting service award pins for those employees who have completed 25 and 30 years of service.

The Company temporarily halted the service award program during its recent economic troubles.

Employees who have celebrated 25-and 30-year Company anniversaries since January, 1985, have already received their pins.

Two Action Teams Present Proposals

14-Inch Mill Y-Team

Members of the 14-Inch Mill Y-Team made a presentation to the Performance Improvement Council (PIC) on ways to "Increase the Number of Trucks Loaded in the 14-Inch Shipping Department during a 24-hour time period."

The Team reached the conclusion that in order to increase the number of trucks loaded in the 14-Inch Shipping Department, additional space would have to be provided for a staging area and/or staging racks. Also, the Action Team decided that part of the problem was caused by truckers remaining inside the shipping building for 30 to 60 minutes during inclement weather (rain, snow, wind, cold, etc.) in order to tarp and/or chain down their loads.

This poses a problem to the shipping crew because while the truck is being tarped there is no space available for another truck to be loaded.

Members of the 14-Inch Y-Team recommended to PIC that 1) A 75' x 75' tarping shed be constructed outside the building adjacent to door No. 6. Thus, during inclement weather, trucks could be spotted outside the shipping area and additional space would be available for shipping crews to load the trucks. 2) It was recommended that the shipping office modules be moved to a different location so that more staging area and/or shipping racks would become available.

To implement the above recommendations, the Company would have to spend approximately \$35,000. However, due to the financial condition of the Company, the PIC group recommended that the shipping offices be moved and that the recommendation to build a 75' x 75' tarping shed be placed before the Facilities Planning Committee for consideration in fiscal year 1987.

The Action Team concluded that had their recommendations been fully implemented, the number of trucks that would be able to be loaded would have increased by 20% and the cost of the recommendations could have been paid back with only 35 days of shipping during inclement weather.

Members of the 14-Inch Y Team are **Bob Czuprynski** (team leader), **P.W. (Bill) Fisher**, **"JJ" Johnson**, **Wayne Lamb**, **Chuck Hoyle**, **Ron Moffitt**, **Gary Ege**, **John Slonneger**, **Max Knowles**, **Ellsworth Wolf**, **Bob**

McDonald, **Jim Hardt**, and **Charlie Bosco**.

Primary Action Team No. 3

On February 6, 1986, members of Primary Action Team No. 3 made a presentation to PIC concerning "Ways to Reduce Patch Time on the Electric Furnaces." During 1985, it is figured the Company lost \$6,148,500 due to down time caused by the necessity to patch the electric furnaces. Also \$418,958 was spent on dolomite material which was used to patch the furnaces.

A piece of vital equipment used in patching the furnaces is the "Yellow Gun." This "gun" is used to apply the dolomite to the furnace walls. The team determined that the impeller (or throwing wheel) has to be replaced every three or four weeks and costs about \$1000, excluding labor, to replace.

It was also determined that as the blades on the throwing wheel wear out, more dolomite is required in order to patch the furnace. Thus, the team concentrated upon modifying the throwing wheel. Rather than replacing the entire wheel, the team recommended that the blades be made of hardened steel and

the throwing wheel be machined so that only the blades need be replaced when they are worn out.

Larry White and some of his people in the Machine Shop did an excellent job of machining and installing the blades on the modified throwing wheel. At a cost of about \$1,500, a modified throwing wheel was fabricated. It is estimated that the modified version should out-perform the present throwing wheel by about 5 times.

The modified throwing wheel was installed on the "Yellow Gun" on February 10, 1986 and its future performance will be closely watched. Members of the Action Team conservatively estimate that if we can save 10% of the downtime on the electric furnaces due to patching, the Company will save about \$615,000 a year.

Members of Primary Action Team are **Ed Howerton** (team leader), **Dale VanDeVelde**, **Don Schoaf**, **Carol Mabrey**, **Ted Wike**, **Merlin Rajnowski**, **Jerry Earl**, **Jim Naughton**, **Craig Deem**, **Lee Wolfe**, **Doyle Fullington**, and **Jack Buchanan**.

★ ★ ★ ★ ★

L.M.P.T. Program Logs Productive Year

As the first anniversary of the Labor-Management Participation Team Program's birth rolls around at Northwestern's Plants 4 and 6, some real benefits are starting to present themselves.

The Labor-Management Participation Team concept was brought to Northwestern by Kirkwood Consultants and the first L.M.P.T. team was formed and began training in March of 1985.

Since that time, four L.M.P.T. Teams have been formed at Plant 4 and one team has been formed at Plant 6, although Plant 6 has not operated much of the year. A total of 15 projects have been tackled or are in the process of being solved since the program began. Approximately one-third of the employees at Plants 4 and 6 belong to one of the Teams.

Wendy Davis, Facilitator for the L.M.P.T. program, said he feels both the Company and the members of the teams have benefited greatly through

the program. "The experience for the participants has been very rewarding. It is very gratifying to team members to finally see the implementation of a solution to a problem. The team members have a voice in selecting the problem to be worked on and know that they contributed to the project's success.

"Each team has made a contribution that has either improved productivity, increased yields, reduced scrap, or provided a better work environment."

Before the solution to a problem can be implemented, a great deal of thought and detail work is necessary by the team members, such as plans must be drawn, quotes must be obtained, visits made to suppliers, outside sources must be contacted, and finally, after the project is approved, the equipment is purchased. Team members must provide an estimator for the required material and the time necessary to finally fabricate parts to complete a job.

Crew Makes History; Performs Company's First Tundish Maneuver

Early in the morning on February 8, while the rest of the Rock River Valley slumbered unknowingly in their beds, members of Northwestern Steel's Caster Department embarked on a sequence of six heats that would place this day and the crew's performance in the annals of history.

A total of six heats were poured consecutively through the billet caster in a 13-hour, 35-minute period of time that stretched through all three shifts. The backbone on which this entire feat rested was a single, yet complicated maneuver known as a flying tundish change -- something never before attempted by anyone at Northwestern.

After steel is melted in one of Northwestern's 400-ton furnaces, it is tapped into a gigantic ladle. The ladle is transported via crane to the Caster Department where it is then positioned over a tundish and tundish car.

The purpose of the tundish car is to act as a buffer between the ladle and the moulds, or strands (8 strands in Northwestern's billet caster), so that the molten steel can be evenly poured through the machine.

Each tundish can generally be used for four heats before the refractory is worn down and a new tundish car must be moved into place. Normally, this process means a shutdown of the caster, and complete restarting which entails between 30 to 45 minutes.

Because the temperature of the steel is such a critical factor in casting, particularly with the time it takes to cast up to 400-tons of steel, and due to the

★ ★ ★ ★ ★

Full Capacity Production

(continued from page 1)

tive, then, we could make use of available credit and increase our debt (for, perhaps, a rolling mill venture) and still maintain a reasonable debt to equity ratio."

Any type of growth in rolling capacity, whether located in Sterling, or elsewhere, would have a favorable impact on employment in Sterling, though Wilthew cautioned against comparing increased employment to the 4,500 employees Northwestern had kept on the payroll in better economic times.

timing of all phases of steelmaking, delivering and casting processes, a flying tundish change had never before been attempted at Northwestern.

"Timing is important. The equipment was designed to be able to handle the flying tundish change, but we had to make sure that we had the timing down before we could accomplish this kind of a maneuver," Dave DeVries, General Foreman - Continuous Casting, said.

Since the operation went so well, DeVries said more flying tundish changes will be made in the future as

the coordination and timing between crews and departments become routine.

Members of the Caster Department who contributed to the flying tundish change were: **Bob Pryor** (foreman), **Tom Goss** (foreman), **Cliff Golden**, **Tom Regalado**, **Dale Laws**, **Joe Padilla**, **Mike Flynn**, **Phil Smith**, **Harold Grimes**, **Michael Fowler**, **Jimmy Mitchem**, **Ernie Gomez**, **Virgil Henson**, **Lauren Hacker**, **Jimmy Dean**, **Walt Wagner**, **Ralph Charleston**, **Wilbur Schwindenhammer** and **Charles Mattingly**.



Participating in Northwestern's first flying tundish change were: Jimmy Mitchem, Ernie Gomez, Virgil Henson, Michael Fowler, Lauren Hacker, Jimmy Dean, Walt Wagner, Ralph Charleston, Charles Mattingly and Wilbur Schwindenhammer.



Members of the Caster Department who participated in Northwestern's first flying tundish change are: Cliff Golden, Tom Regalado, Dale Laws, Joe Padilla, Mike Flynn, Phil Smith, Harold Grimes and foremen Bob Pryor and Tom Goss.



Northwestern's Data Processing Department dressed up in support of the Super Bowl Champion Chicago Bears Football Team recently. They are, from left to right: (first row) Bev Farwell, Carol Siefken, (second row) Liz Rosenow, Sherry Henry, Bev Reed, Ruth Ann Martin, (back row) Ruth Geiger, Anne Hungerford.

Northwestern's February Anniversaries

35-Years

Vinus W. Williams, 2/7/51, Electric Furnaces.

Charles L. Murphy, 2/26/51, Private Payroll, Roller - 14-Inch Mill.

30-Years

Don R. Wiemken, 2/1/56, Electric Furnace Department.

Chester A. Alender, 2/6/56, Plant 3 Millwrights.

Carl O. Urban, 2/7/56, Private Payroll, Payroll Benefit Analyst.

Michael R. Huebsch, 2/8/56, Wire Mill Electrical.

Donald W. Clites, 2/10/56, Nail Department.

Richard W. Friel, 2/28/56, Private Payroll, General Foreman - Production, 12-Inch Mill.

25-Years

Louis S. Peck, 2/3/61, Over-The-Road Truck Driver.

20-Years

Paul M. Covell, 2/7/66, Plant 4 Shipping.

Jimmie L. Brooks, 2/16/66, Electric Furnaces.

Donald E. Thompson, 2/18/66, Rock Falls General Works.

Donald G. Schultz, 2/21/66, 14-Inch Mill.

David A. Bushman, 2/21/66, Private Payroll, Metallurgical Inspector.

Charles V. Seidel, 2/22/66, Plant 2 Crane Operator.

15-Years

Sherry L. Henry, 2/1/71, Private Payroll, Data Processing.

Jessie F. Prado, 2/1/71, 24-Inch Mill.

George A. Keesee, 2/2/71, Rock Falls Tractor Driver.

Chris L. Erikson, 2/3/71, Scrap Yard.

David Martinez, 2/3/71, S.P. Crane Operator.

Sabino I. Diaz, 2/4/71, 12-Inch Mill Finishing.

Braulio R. Castillo, 2/8/71, Drawing Room.

James E. Jernigan, 2/8/71, 14-Inch Mill Shipping.

Ralph T. Aldrich, 2/8/71, 24-Inch Crane Operator.

Charles E. Jones, 2/9/71, 14-Inch Mill Shipping.

Roger K. Lubbs, 2/9/71, Private Payroll, Assistant General Supervisor - Nail Department.

Louis Riojas, 2/14/71, Plant Protection.

Alberto M. Garcia, 2/18/71, 24-Inch Crane Operator.

Frank A. Lopez, 2/21/71, Scrap Yard.

John J. Tomczak, 2/26/71, Rock Falls Tractor Driver.

5 Years

Norman S. Woost, 2/1/81, Private Payroll, Superintendent - Continuous Casters.

Jack L. Buchanan, 2/9/81, Private Payroll, Ladle Metallurgist - Electric Furnaces.

Mark D. Vest, 2/9/81, Private Payroll, Hot Rolled Salaried Salesman.

Larry Onken Receives Largest Suggestion Award

Larry Onken, General Millwright at Plant 2, smiled all the way to the bank -- and he had good reason to.

Not only does the record book show that Larry holds the distinction of having received the largest individual award presented under Northwestern Steel and Wire Company's Suggestion Plan, his pocketbook shows that he is \$1,810 wealthier as well.

Larry's suggestion to use discarded 1-3/8" cable off of the Ladle Cranes instead of new cable to make scrap bucket trip cables has been estimated to save the company a whopping \$18,989.12 annually.

The estimated savings was figured after the suggestion was instituted recently in the Furnace Department.

Congratulations to Larry on his suggestion, which should show heavy payoffs to the Company in future years.

John Souser, a Plant 4 Pipefitter, recently was awarded \$195 for his suggestion to relocate paint pumps in the plastic coating department in a specially designed tank. The life of the pumps has been increased due to a "pushing" instead of "pulling" action of the paint created while the pumps are in the tank.

It was estimated that \$1,920 annually is saved with this new design.

Company Receives 6 New Suggestions In January

There were 18 suggestion awards completed in January with six suggestions approved, for total awards of \$2,310. At the end of January there were 47 suggestions in various stages of processing.

The following six employees submitted new suggestions during the month of January:

Filemon Sandoval, Wire Mill Drawing Room.

Michael Fowler, 14-Inch Mill Inspection.

Douglas Harms, Rolling Mill Millwrights.

Larry Workman, Steel Plant Welders.

Richard McCoy and **Lauren McCune**, Rolling Mill Millwrights.

There was also one anonymous suggestion received.

Crew Makes History; Performs Company's First Tundish Maneuver

Early in the morning on February 8, while the rest of the Rock River Valley slumbered unknowingly in their beds, members of Northwestern Steel's Caster Department embarked on a sequence of six heats that would place this day and the crew's performance in the annals of history.

A total of six heats were poured consecutively through the billet caster in a 13-hour, 35-minute period of time that stretched through all three shifts. The backbone on which this entire feat rested was a single, yet complicated maneuver known as a flying tundish change -- something never before attempted by anyone at Northwestern.

After steel is melted in one of Northwestern's 400-ton furnaces, it is tapped into a gigantic ladle. The ladle is transported via crane to the Caster Department where it is then positioned over a tundish and tundish car.

The purpose of the tundish car is to act as a buffer between the ladle and the moulds, or strands (8 strands in Northwestern's billet caster), so that the molten steel can be evenly poured through the machine.

Each tundish can generally be used for four heats before the refractory is worn down and a new tundish car must be moved into place. Normally, this process means a shutdown of the caster, and complete restarting which entails between 30 to 45 minutes.

Because the temperature of the steel is such a critical factor in casting, particularly with the time it takes to cast up to 400-tons of steel, and due to the

★ ★ ★ ★ ★

Full Capacity Production

(continued from page 1)

tive, then, we could make use of available credit and increase our debt (for, perhaps, a rolling mill venture) and still maintain a reasonable debt to equity ratio."

Any type of growth in rolling capacity, whether located in Sterling, or elsewhere, would have a favorable impact on employment in Sterling, though Wilthew cautioned against comparing increased employment to the 4,500 employees Northwestern had kept on the payroll in better economic times.

timing of all phases of steelmaking, delivering and casting processes, a flying tundish change had never before been attempted at Northwestern.

"Timing is important. The equipment was designed to be able to handle the flying tundish change, but we had to make sure that we had the timing down before we could accomplish this kind of a maneuver," Dave DeVries, General Foreman - Continuous Casting, said.

Since the operation went so well, DeVries said more flying tundish changes will be made in the future as

the coordination and timing between crews and departments become routine.

Members of the Caster Department who contributed to the flying tundish change were: **Bob Pryor** (foreman), **Tom Goss** (foreman), **Cliff Golden**, **Tom Regalado**, **Dale Laws**, **Joe Padilla**, **Mike Flynn**, **Phil Smith**, **Harold Grimes**, **Michael Fowler**, **Jimmy Mitchem**, **Ernie Gomez**, **Virgil Henson**, **Lauren Hacker**, **Jimmy Dean**, **Walt Wagner**, **Ralph Charleston**, **Wilbur Schwindenhammer** and **Charles Mattingly**.



Participating in Northwestern's first flying tundish change were: **Jimmy Mitchem**, **Ernie Gomez**, **Virgil Henson**, **Michael Fowler**, **Lauren Hacker**, **Jimmy Dean**, **Walt Wagner**, **Ralph Charleston**, **Charles Mattingly** and **Wilbur Schwindenhammer**.



Members of the Caster Department who participated in Northwestern's first flying tundish change are: **Cliff Golden**, **Tom Regalado**, **Dale Laws**, **Joe Padilla**, **Mike Flynn**, **Phil Smith**, **Harold Grimes** and foremen **Bob Pryor** and **Tom Goss**.