

# the Westerner

OMAHA WORKS

APRIL 15, 1977

## Did You Ever Hear The One About The Enamel Wire Job . . .

. . . Dave Leslie can tell you. When you work on the enamel wire job, you really get your hands into your work, as is evident in the photo below.

Dave and the others employed on the enamel wire job direct the yards and yards of fine gauge wire as it trails over, under, around and through a variety of

machine processes.

The small crochet-hook device pictured at right is used to splice two wire ends together.

To give you a closer look at some of the components which comprise the world of enamel wire, turn to pages 4-5.



# For Your Information ...

... April 24-30 marks the 25th annual observance of National Secretaries Week. As noted by the National Secretaries Association, the purpose of the week is "to give secretaries recognition for their vital role in business, government, education and the professions and to remind secretaries of their responsibilities to their profession." Wednesday, April 27, will be observed as National Secretaries Day ...

... about 3,000 of the over three million AT&T stockholders are expected to attend the 92nd annual meeting of AT&T stockholders scheduled for April 20 in Kansas City. The gathering will be held in the H. Roe Bartle Convention Center and will feature exhibits of the latest in communications technology. AT&T financial experts will be on hand from New York to answer share owner questions and, perhaps most importantly, there will be an exchange of ideas and opinions between Board Chairman John deButts and the owners of the business. Required by law, the annual meeting has, over the last 91 years, grown from a small, brief meeting held in New York to a lengthy affair held in a different location each year. The Kansas City meeting is expected to last about five hours. As in previous years, the vast majority of the share owners will be represented at the meeting by proxy. The forwarding of proxy materials in connection with the annual meeting constitutes the largest single mailing of share owner-related materials. Since most stockholder accounts receive a package consisting of an annual report, plus an envelope containing a proxy statement, proxy voting card, return envelope and annual meeting ticket request form, a total of about 18 million documents are handled in this mailing. The documents are assembled at AT&T's Raritan River Center in New Jersey and mailed over a 10-day period ...

... the Spring Frolic is right around the corner. Scheduled for April 29 at Peony Park, the evening will feature food, fashions and lots of fun. Clothes for the fashion show are courtesy of Landon's and Plaza Suite. In addition, there will be drawings for door prizes. Tickets are on sale throughout the Works at \$7.50 per person ...

... one of the largest salary allotment arrangements in existence is the one between the Bell System and Phoenix Mutual Life Insurance Company. A pioneer in agent training in the early 1900's, Phoenix Mutual has been counseling Bell System employees on life insurance planning since 1928. The insurance plan an employee chooses via this in-Plant financial counseling can be part of a payroll deduction program. Interested in discussing a current or new insurance plan? Contact one of the Phoenix Mutual counselors on Ext. 3599 ...



**AWARD WINNER:** Mike Davidson, Department 735, has received a \$715 suggestion award for his proposal that a procedure be established to file vendor documents and provide for selective reproduction of these documents. Mike received his check from Manager Earl McLean.



**SUPER SCHOLAR:** Department 441 employee Larry Buck has every reason to be proud of his 17-year-old daughter, Paula. A high school senior in the Yutan Public Schools, Paula is the recipient of a Regents Scholarship to the University of Nebraska in Lincoln where she will be majoring in accounting. Paula was selected as a scholarship recipient based on her score on the American College Testing exam as well as her fine scholastic record. An honor student throughout junior high and high school, she has served as a class officer and participates in a number of school activities including volleyball, basketball, track, pep club, chorus, newspaper and yearbook and all conference band.



*Gay accepts a plaque from Mayor Cunningham as representatives of Metro Area Carpool look on.*

## Carpooler Cited

Hundreds of Omaha Works employees carpool to and from work every day.

Representative of that group is Works employee Gay Darwin, an 18-year veteran of the carpool circuit who was recently recognized for her long-time dedication to the carpooling concept.

On March 16, Gay was honored during one of Omaha Mayor Robert Cunningham's weekly press conferences. She and two other long-time carpoolers representing Northwestern Bell and Union Pacific received personalized plaques recognizing their carpooling efforts.

The press conference presentation was arranged by Metro Area Carpool to publicize the fact that March was energy conservation month.

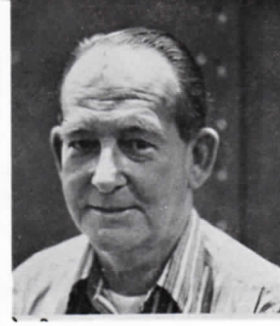
# MAY SERVICE ANNIVERSARIES



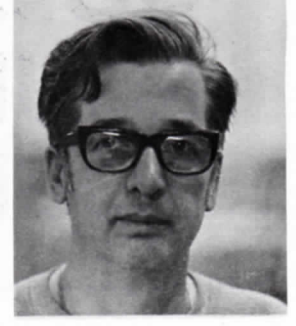
Patricia Klippert  
30 Years 5/8/47



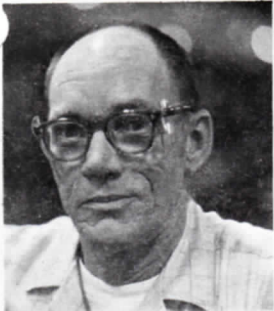
Roy Schuster  
30 Years 5/14/47



Charles Lange  
30 Years 5/22/47



John Lennon  
30 Years 5/26/47



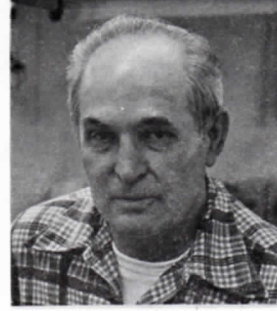
Dick Hanner  
30 Years 5/27/47



Gary Schuerman  
25 Years 5/3/52



Elton Herrmann  
25 Years 5/5/52



Jacob Hoffman  
25 Years 5/5/52



Bill Thompson  
25 Years 5/5/52



Gene Valenta  
25 Years 5/5/52



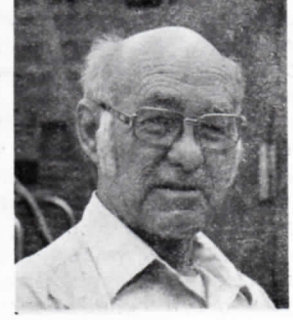
Mike Kirwan  
25 Years 5/8/52



Max Engler  
25 Years 5/12/52



Frank Ienn  
25 Years 5/19/52



Bill Kemp  
25 Years 5/22/52

20 Years

R. M. Alley  
H. G. Andersen  
R. V. Bishop  
V. L. Carlson  
R. J. Coufal  
K. R. Deman  
O. E. Eby  
K. T. Eggersgluess  
D. S. Engel  
E. M. Hansen  
D. F. Hartung  
A. R. Head  
F. C. Herre  
J. V. Jardee  
D. M. Jurgena  
J. E. Leonovicz  
G. A. Melcher  
R. T. Michaelsen  
L. D. Nelson  
A. L. Nielsen  
M. Owens  
D. J. Pfeifer  
E. H. Randels  
E. Sigmund  
W. J. Thraen  
K. R. Wadum

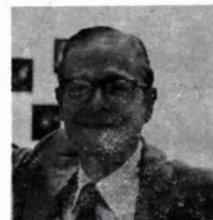
15 Years

10 Years

V. A. Bazant  
M. S. Gustafson  
T. L. Hummel  
W. F. Lepley  
A. R. Molzen  
J. I. Nelson  
L. E. Reinke  
M. M. Rutledge  
P. G. Siderewicz  
J. P. Stark  
M. H. Thornton  
S. V. Toepfer  
D. C. Weidaman  
C. R. Wright

M. N. Bunting  
G. F. Hacker  
J. L. Heinzman  
C. H. Phillips  
G. L. Scharton  
J. H. Schroeder  
U. B. Stinson  
V. S. Vazzano  
J. J. Zych

## RETIREMENTS

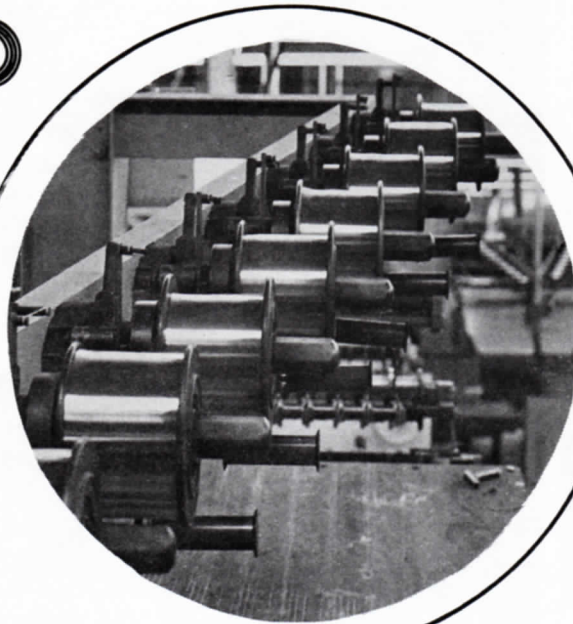


Arnold Johnson  
31 Years



Hazel Greenwade  
25 Years

# THE WIRE GOES ROUND AND ROUND...



Almost every job has a language all its own. Enamel wire is no exception.

It has payoff stands, magnetic brakes, arbors, capstans, ovens, sheaves . . . and even a mouse.

But let's start at the beginning — and with some understandable words — to tell you what exactly goes on in enamel wire production. First of all, two types of enamel wire are manufactured at Omaha — oleoresinous and polyurethane. As related in a previous *Westerner* article, the enamel wire job utilizes more than half the fine gauge wire produced at Omaha. The end product is used in the manufacture of relays and coils.

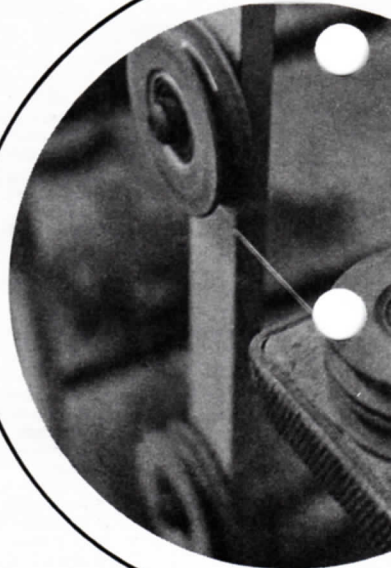
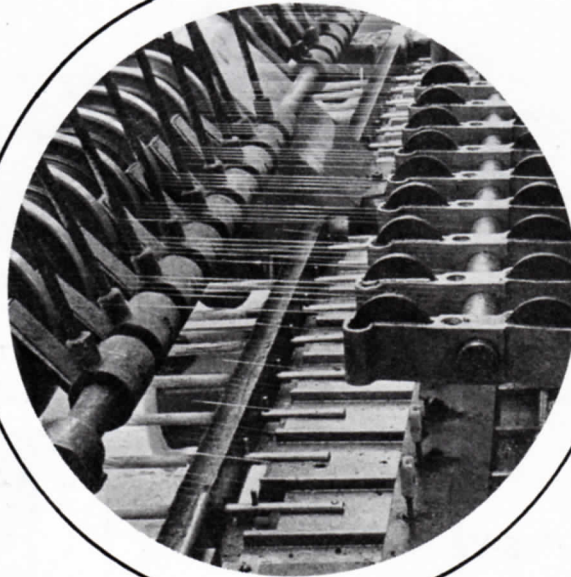
Bare wire is fed into the enameling machines via one of two ways — from wire spools on a payoff stand adjacent to the machine or from spools located on the machine itself.

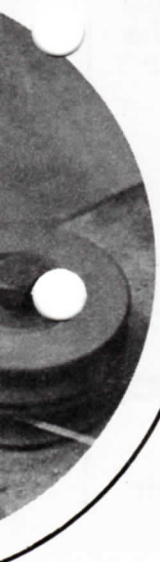
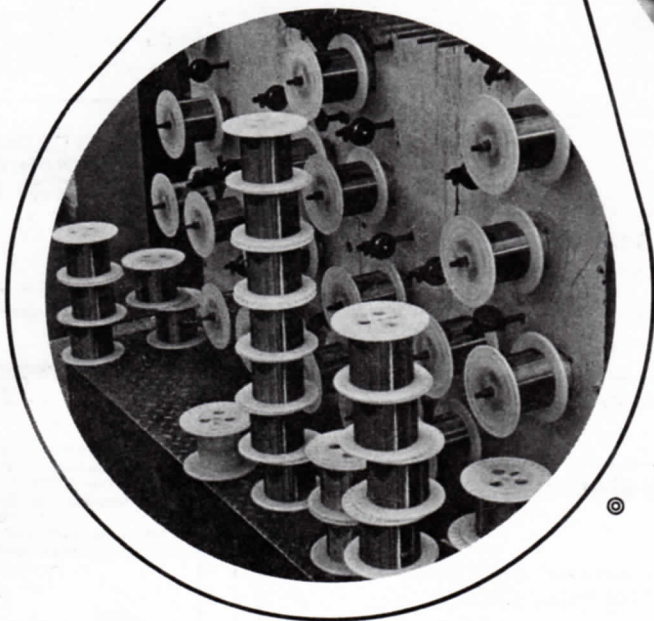
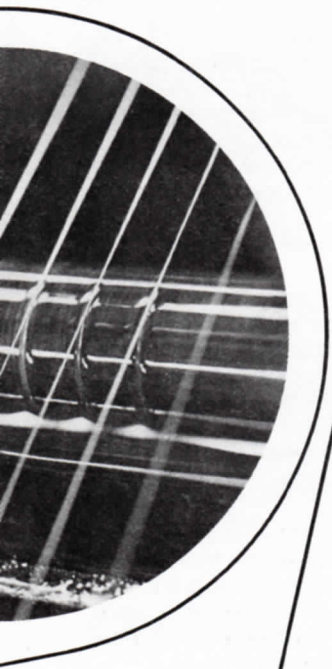
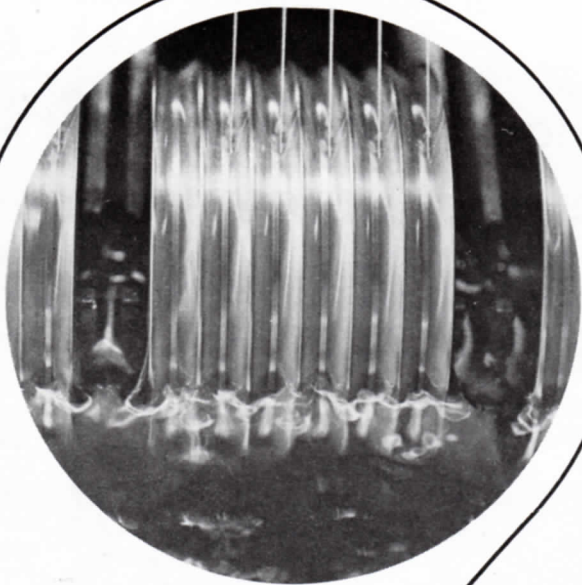
Now this is where the mouse comes in. It's a small weighted device to which the wire is attached so that it can be fed into the machine to begin an initial run. The weight of the mouse pulls the wire through the oven and the operator takes over from there.

Capstans are the main driving elements in the machinery. They guide the wire through each of the five passes it makes through the enameling machine. The initial pass cleans the wire while the four remaining passes give the varnish coat.

The wire is heat treated and its varnish coat cured in the oven after which it passes through a water sheave, is cooled and goes back for another coat of varnish.

Magnetic brakes on the machinery provide the tensioning necessary to maintain the proper pull on the wire as it goes through the enameling process. Once the wire has passed through the five stages, it ends up on a spool located on one of the take-up arbors or spindles located on the machine.





• • • AND  
IT COMES  
OUT HERE

May 1, 1977

# Employee Participation Urged In National Disaster Program

Would you know what to do if you were stranded on a country road in the middle of a snowstorm? What if you were caught in a flash flood or lost in the desert?

Knowing the answers could one day save your life. And you'll get the answers when you participate in "The National Disaster Survival Test," to be broadcast Sunday, May 1 at 7 p.m. (CDT), on the NBC television network.

Using the form below, you can mark your answers as the questions are asked, then learn what experts from the National Safety Council and others say are the right answers to raise your "survival quotient."

Western Electric employees throughout the country are being urged to tune into the program on

May 1 in order to gain a better understanding of disasters and how to limit or entirely prevent the tragedies associated with them.

The 90-minute program will use reenactments, actual film footage of disasters and interviews with survivors and survival experts to emphasize disaster survival and prevention.

The test will be divided into sections relating to disasters caused by fire, water, ice or sun, tornadoes, hurricanes and earthquakes. Another section will deal with first aid procedures. Questions will test judgment, knowledge, alertness, stress and leadership.

Clip the form and put it to good use on May 1. Remember, it's what you don't know that can hurt you.

## THE NATIONAL DISASTER SURVIVAL TEST

A Warren V. Bush Production in cooperation with the National Safety Council  
NBC Television 8:00 p.m., Eastern Time, Sunday, May 1, 1977

### OFFICIAL TEST FORM

#### I. JUDGMENT

1. a b c d
2. a b c d
3. a b c d

Score \_\_\_\_\_

#### II. KNOWLEDGE

1. T F    5. T F    8. T F
2. T F    6. T F    9. T F
3. T F    7. T F    10. T F
4. T F

Score \_\_\_\_\_

#### III. ALERTNESS

1. Yes No

2. List the number of potential dangers: \_\_\_\_\_ Score \_\_\_\_\_

#### IV. STRESS

- |           |            |
|-----------|------------|
| 1. Yes No | 9. Yes No  |
| 2. Yes No | 10. Yes No |
| 3. Yes No | 11. Yes No |
| 4. Yes No | 12. Yes No |
| 5. Yes No | 13. Yes No |
| 6. Yes No | 14. Yes No |
| 7. Yes No | 15. Yes No |
| 8. Yes No |            |

Score \_\_\_\_\_

#### V. LEADERSHIP

1. a b c d
2. a b c d

Score \_\_\_\_\_

#### PRELIMINARY SCORE

#### VI. SPECIAL SCORING

#### YOUR FINAL SCORE

# Works Hosts Cost Bulletin Seminar

Good ideas are worth sharing. And that's just what Omaha Works Accounting and Information Systems personnel did from March 29-31.

They and nearly 50 other conferees from 16 Western Electric locations participated in a Cost Bulletin seminar.

To give you some background information on Omaha's Cost Bulletin set up, Omaha's Information Systems Development group late last year put together a new Cost Bulletin system which was implemented throughout the Switching Equipment Division with the 1977 bulletin revisions.

CBS II, as the system is called, utilizes a cathode ray tube for updating cost bulletin data. By eliminating the need for keypunch data sheets and tab cards, CBS II has a significant effect in reducing the time-consuming work effort involved in preparing Cost Bulletin updates.

The new system also provides an economical means of working up estimated costs to compare with other Western Electric locations as well as with outside competitive sources, a feature not available under the manual system.

Omaha's Cost Bulletin seminar was held specifically to introduce CBS II to those locations which have not yet adopted the system but are being encouraged to do so.

Seminar participants were given an in-depth analysis of what the system provides for those seven Manufacturing Division locations currently utilizing it and what it could provide to the 12 locations considering a conversion.

**the Westerner**  
VOLUME 21 NUMBER 3

**Frank J. Lefebvre**  
General Manager

**Nancy Lynch**  
Editor

Published for employees of the Omaha Works.  
For information write: Editor, *The Westerner*,  
P.O. Box 14000, West Omaha Station, Omaha,  
Nebraska, 68114; or telephone 334-4132.

Member  
Nebraska Association of Business Communicators  
International Association of Business Communicators  
Printed in the U.S.A.

 **Western Electric**

# Tiny Transistor Packs Powerful Punch

In 1947, the world was introduced to a Bell Laboratories invention called the transistor.

Thirty years later, pocket-sized transistor radios and transistorized television sets are about as common as peanut butter and jelly sandwiches.

The first commercial version of this tiny device, which switches and amplifies electrical signals, was made by Western Electric. This year the Company will make more than 118 million transistors for Bell System telecommunications equipment.

Because Bell System transistors are key elements in the successful operation of our national communications system, they have to last. Better than half of Western Electric's present transistor production is going into new and expanded systems. The most recent technological breakthrough has been the use of photolithography in the manufacturing process. A layer of

photosensitive emulsion is spread over a silicon wafer with thousands of transistors embedded in rows, uncut, like a cake before it's sliced. A glass mask, similar to a stencil, is placed over the wafer and light is shot through it.

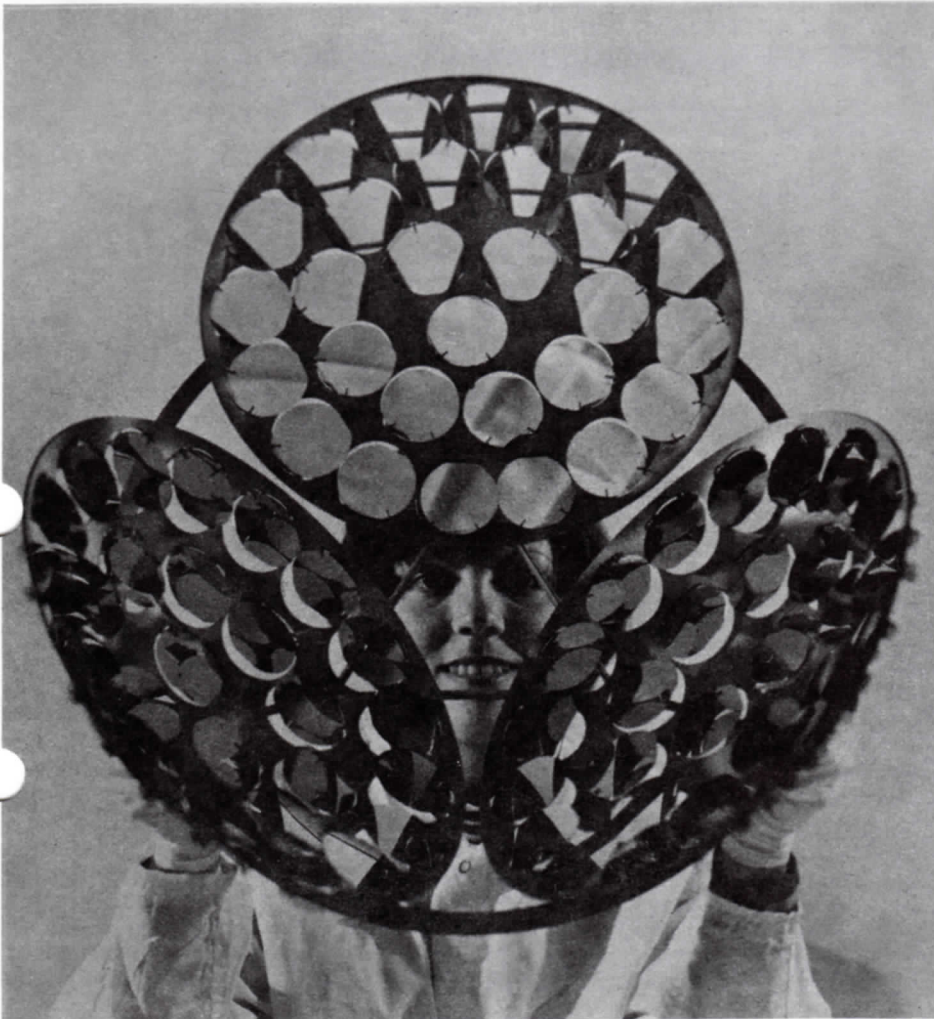
The wafer is then run through a developing solution, leaving the exposed sections bare and the rest still covered with protective emulsion. Following several intermediary steps, electrical contacts are eventually put in the bare areas, and the transistors are automatically cut from the wafer with a diamond scribe.

All this takes place on a transistor which, on the average, is 7 mils by 20 mils square. The electrical contacts are made with wire that is one mil wide. To give you a better grasp of the size, a human hair is 3 mils wide. One of the wafers from which the transistors are cut is about 2 inches in diameter and yields 12,000 transistors.

Almost all work in the 73-step process is done with the aid of a microscope. When elements such as phosphorous and boron are diffused in the silicon base of a transistor, an engineer controls the number of atoms of each element to one atom in a billion billion.

Much of the manufacturing process is done in a "clean room." This is a closed room where the temperature is always between 73 and 78 degrees; the humidity is kept between 10 and 15%; the air pressure is constant, and there are no more than 100 particles of dust per cubic foot of air. The normal proportion is 500,000 particles per cubic foot.

There is a constant flow of air, pumped from the ceiling and sucked through vents in the floor. All workers wear gloves and head and body covering since a piece of dust or dandruff could wipe a transistor out. The dust is bigger than the product!



*Left: Allentown Works employee Joanne Prazko is holding more than a million transistors. Each of the 87 reflective wafers on the apparatus in her hands contains 12,000 transistors. The apparatus is used in coating each transistor with a thin film of platinum, a low resistance metal to which electrical lead wires are attached. Above: Omaha Works employee LaVonne Waters, Department 727, holds a circuit pack, an Omaha-produced product that utilizes transistors.*



# Bob Traugh: A Man Who Communicates

Bob Traugh can hear — with his eyes, his heart and his sense of humor. Not with his ears.

Legally deaf since birth, Bob has mastered the art of communicating without words. It's a lesson in body language, interspersed with an occasional spoken word. The wink, the smile, the shrug all constitute as valid a conversation as a verbal exchange.

A conversation with Bob necessitates strong eye contact.



How do you like your job, you ask. Easily reading your lips, he replies, through a mixture of words, gestures and written responses that *it's a nice job, very interesting.*

Why?

*Because this place is good as far as a future is concerned.*

Where would you like that future to take you?

*To a plant manager,* he responds with a broad grin.

A situation like Bob's demands some degree of dependence upon others.

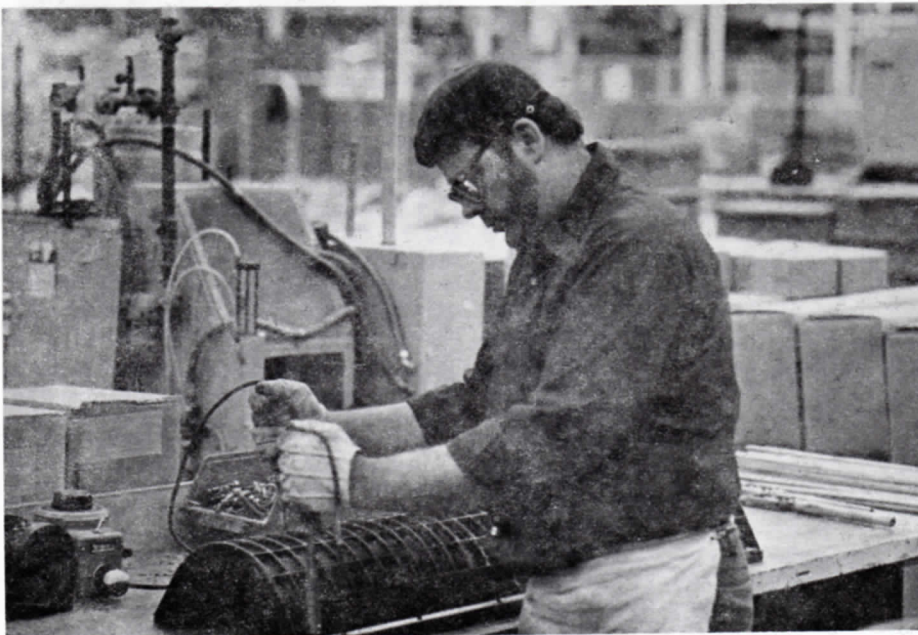
Doctor's and dentist's appointments are made by a neighbor or a friend. A special project like ordering flowers for his wife is handled by one of his supervisors.

If you're wondering how he adapts to being deaf in an industrial environment, he doesn't give it a second thought.

*No problems as far as work is concerned,* he relates.

Being deaf doesn't deprive Bob of some very independent pursuits, among them driving a car, fishing, remodeling the basement of his new home, cooking and giving some household assistance to his wife, Deanna, also employed at the Omaha Works.

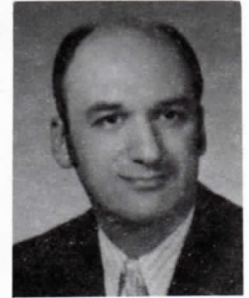
Bob works on the 2-type closure in Department 435.



# Two Promoted

Effective April 1, R. G. Iaffaldano assumed the position of Manager, Engineering and Manufacturing — Loop Transmission Apparatus and Crossbar.

Prior to his promotion, Dick had been Assistant Manager, Engineering-Electromechanical Switching Products and Loop Transmission Apparatus.



R. G. Iaffaldano

Also effective April 1, J. J. Madden, Jr., was promoted to Assistant Manager, Personnel and Public Relations at the Oklahoma City Works.

Jack had been Department Chief, Non-Stock Merchandise Service, Merchandise Data Management System Coordination, Claims, Procedures and Results.



J. J. Madden



**AWARD SHARED:** Department 441 employees Gerry Boyer, second from left, and Doug Haase, second from right, have split a supplemental suggestion award of \$435. The two proposed a method to improve hole alignment on a hinge bar for the cutter-presser tool. Also pictured during the check presentations are Assistant Manager Bob Tatten, left, and Section Chief Frank Havelka.