

# NUCLEAR DIVISION NEWS



A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 2 — No. 8

OAK RIDGE, TENNESSEE

Thursday, April 22, 1971



**'MINUTEMAN' CHALLENGE**—The month of May will be U. S. Savings Bond Month at all Nuclear Division facilities. One of the objectives is to achieve 50 percent participation in the payroll savings plan by Division employees. Any facility achieving 50 percent will be awarded a "Minuteman Flag" similar to the one displayed by H. C. Wright and W. E. Williams. Wright, at left, is drive chairman for the general staff, and Williams is coordinating Nuclear Division participation in the Savings Bond campaign.

## U. S. Savings Bond Drive Scheduled for Four Plants

May has been designated as "U. S. Savings Bond Month" at Nuclear Division facilities in Oak Ridge and Paducah. Announcing plans for the month-long payroll savings campaign, W. E. Williams, general chairman for the drive, said the objective of this year's campaign is to achieve 50 percent participation by Nuclear Division employees.

Williams is heading a multi-plant committee which, during the next few weeks, will be working with the four Division facilities in an effort to interest more employees to participate in payroll savings.

### Multi-Plant Committee

Members of the multi-plant committee are: C. W. Benson, Oak Ridge National Laboratory; E. A. Pluhar, Oak Ridge Y-12 Plant; K. W. Sommerfeld, Oak Ridge Gaseous Diffusion Plant; Joe White, Paducah Gaseous Diffusion Plant; and H. C. Wright, General Staff.

This is the second annual payroll savings campaign at Division facilities. Last year more than 2,300 employees signed up for Savings Bonds under the payroll savings plan. As a result, approximately 23 percent of Nuclear Division employees are now participating in payroll savings.

This year's goal, according to Williams, is 50 percent. "Each fa-

cility achieving 50 percent participation will be awarded a special flag by the United States Treasury Department (see photograph on this page); this flag can be flown below the American Flag," Williams explained.

### Changes Can Be Made

Only those employees who are not yet participating in the payroll savings plan will be contacted this year. However, employees wishing to change the amount they are saving can do so by filling out the card, "Payroll Savings Authorization Card — U. S. Savings Bonds."

Participation in the payroll savings plan provides for a minimum investment of 50 cents a week or two dollars a month. When filling out an authorization card, employees also must indicate the dollar value of the bonds they wish to purchase. While bonds come in various denominations, the most popular have been the \$25, \$50, and \$100 bonds.

Pointing out that U. S. Savings Bonds are an excellent investment, Williams said that interest rates have increased seven times since the first Series E Bond was sold on May 1, 1941. The current interest rate is five and one-half percent, if the bond is held to maturity.

### Several Advantages

The campaign committee pointed out several advantages of investing in Savings Bonds through payroll savings. First, participation is automatic; that is, once an employee decides on how much he wants to invest, the bonds start stacking up automatically. Second, in the event of an emergency, E Bonds can be cashed readily at any bank.

U. S. Savings Bonds are registered securities. As such, they are "indestructible." If a bond is lost, stolen, damaged, or destroyed, it will be replaced by the Treasury at no cost. Over the years — fires, storms, thefts, and accidents have taken a large toll of U. S. Savings Bonds, but not a penny ever has been lost by the owners.

## Another Spot Bid Surplus Sale Soon

Another spot-bid sale is announced by Property Sales. Included in the latest sale are used government-owned vehicles, office equipment and miscellaneous items, trucks, vans, carryalls, ambulance, styrofoam logs, and office equipment consisting of typewriters, calculators and adding machines.

These items may be inspected from 8:10 a.m. until 4:10 p.m. Monday through Friday and Saturdays, April 24, and May 1, through May 5.

Inspection and sale are held at the Oak Ridge Gaseous Diffusion Plant, Power House area, Building K-722, off State Route 58, Oak Ridge.

The sale will start at 9 a.m., Thursday, May 6. Successful bidders will be expected to pay for and pick up their items on that day.

## Miniature 'Gravity-Zero' Laboratory System Developed for Space Program



MAN's Norman G. Anderson, with new system.

A miniature analytical clinical laboratory system designed to operate on space ships for monitoring the health of astronauts is being developed at the Atomic Energy Commission's Oak Ridge National Laboratory.

The mini-system, called "Gravity-Zero," because it will be designed to operate in the weightlessness of outer space, is being developed by ORNL under an interagency agreement between

the National Aeronautics and Space Administration's Manned Spacecraft Center, Houston, and the AEC.

The "Gravity-Zero" system will utilize the technology developed under the basic fast analyzer work, of the Molecular Anatomy Program at the Laboratory, which has been supported for several years by the National Institute of General Medical Sciences under

(Continued on Page 2)

## 'Reports on Benefits' Forthcoming

As a Union Carbide employee, how much money will you be paid if you become disabled or sick, but are expected to be able to return to work? What about the benefits available to your beneficiary if you should die? What will you receive from the Group Insurance Plan and Pension Plan when you retire?

These are just a few of the questions you will have answered

### Time Change

Enjoying waking up to all that sunshine? Well, get prepared to get up just about an hour earlier.

At 2 a.m. Sunday, April 25, the official working hours at the Nuclear Division plants will be changed from Eastern Standard Time to Eastern Daylight Saving Time in order to comply with Federal and State regulations. All time clocks will be advanced one hour, and all other clocks should be changed.

The shift for all employees who are at work at the time of this change will end at their usual clocktime on a Daylight Saving Time basis rather than on the old basis. For example, the work schedule for those who report at 11 p.m. EST, Saturday, April 24, will end at 7 a.m. EDST, Sunday, April 25.

All shifts that are scheduled to start after the time of this change will begin and end work at their usual clocktime on a DST basis.

The plants will operate on Eastern Daylight Saving Time until late October.

when you receive your "Report of Benefits," which will be mailed to employees' homes on May 1, 1971. While it is not possible to answer all questions in the benefit report, the values of various benefits have been calculated on an individual basis.

For the purposes of the report, the company service and age for employee have been projected into the future, but calculations were made using the rate of pay on December 31, 1970. If an employee is not a participant in a specific plan, or if he does not meet the minimum requirements for a benefit, the space for the dollar figures has been left blank.

Items covered in the "Report on Benefits" are:

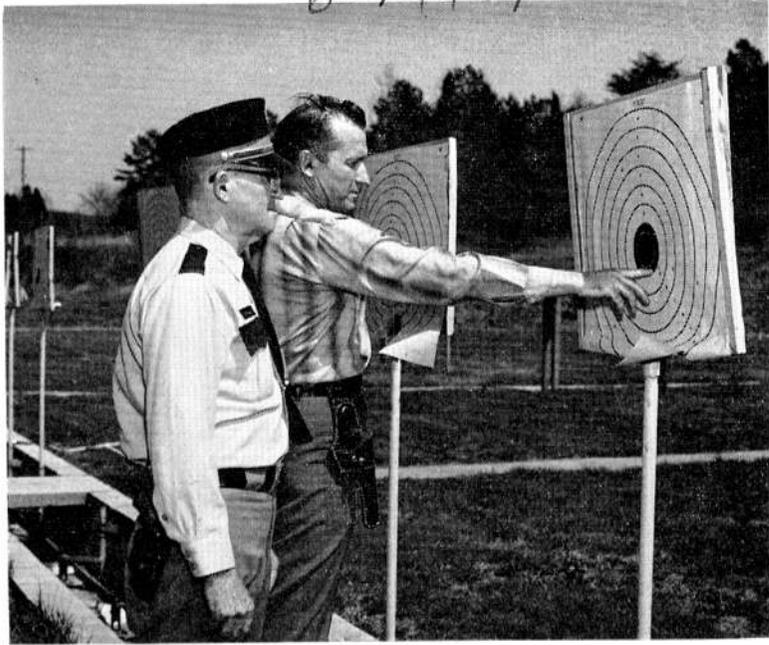
**Disability** — This section covers the group insurance plan, pension plan disability benefits, termination pay and Social Security benefits which may be received in the event of total and permanent disability.

**Retirement Income** — Covered in this section are such items as the pension plan, monthly income after retirement, and life insurance after retirement.

**Benefits to Beneficiary** — This section is devoted to the benefits an employee's beneficiary would receive in the event of death.

While the report gives information about several items, it was not possible to describe all benefits available to you. Additional information concerning various benefits can be obtained from your supervisor, or from your insurance and benefit plans office.

# National Rifle Association Experts Give Marksmanship Training



**CHECKING TARGETS**—Captains W. R. McGill, Y-12, and J. H. Birney, ORGDP, left to right, check pistol targets after a 10-round firing with the 32 calibre pistol, used by security forces in the Nuclear Division plants.

"Is the line ready?" That was the question heard at the Oak Ridge Y-12 Plant's East Portal last week, as the National Rifle Association of America had representatives here for a three-day instruction project that brought law enforcement officials in from the cities of Knoxville, Oak Ridge, The University of Tennessee, as well as security forces from the four Nuclear Division plants.

"The firing line is ready!" is the immediate response.

"Ready on the left?"

"Ready on the right?"

### NRA Representatives

Then commence firing, and commence firing they did. The red flag flying in the brisk breeze signified that firing was taking place on the range. The flag is a safety factor always observed on the range.

NRA instructors Dale T. Gaskill and James E. Daughtery were here for special training. Gaskill is assistant director of the training activities section, and Daughtery is head of police training activities. Both are from the NRAA office in Washington, D. C.

Harry C. Hoy, Jr., Y-12's Facilities Engineering, and a patron member of NRA, arranged the Seminars.

### Safety Stressed

Classwork, as well as actual firing with police-type 32 calibre revolvers and shotguns made up the training sessions.

Homemade guns . . . zips . . . picked up in the prison system of the state of Idaho were displayed to illustrate how easily a lethal weapon may be manufactured. Some were made of mouse traps, water pipes, wooden sticks, toy pistols, and other odd pieces of junk.

A motion picture and slide presentation also occupied parts of the informative lecture sessions.

The paramount rules of safety were stressed at all times. A gun is a lethal weapon and must be respectfully treated at all times. Carelessness, horseplay, forgetfulness, none of these has a place around a weapon. Common rules of safety were stressed, reemphasized, and stressed again. If the three-day session had any special theme, SAFETY was the big element.

To become an adept marksman one must know and practice the basic fundamentals. First he must find his "master eye." A very easy method was shown to determine one's master eye. Tear a hole in the center of a paper. Focus on an object across the room, with



**HANDMADE LETHAL WEAPONS**—Lt. R. G. Smith, Oak Ridge Police Department, left, Harry Hoy, and Dale Gaskill, National Rifle Association of America, inspect some handmade weapons picked up by prison officials in Idaho. The death-dealing tools were manufactured from ordinary pieces of pipe, toys, mouse traps, and various other available pieces of junk. Hoy, in Y-12's Facilities Engineering, coordinated the three-day efforts of the NRA here.

the paper a couple of feet away from your face. Now bring it slowly toward your nose. The eye that the hole approaches is your "master eye" and that is the only one you always use aiming through the sights of a rifle or a pistol. Gaskill emphasized that this is a never-fail method.

### Abandoned Auto

Correct stance was emphasized on the line, as each firer was assigned a "coach" to observe his firings.

The city of Oak Ridge police force brought an abandoned automobile onto the range to demonstrate the penetrating ability of a bullet. Instructions were given on how to fire at a fleeing fugitive in an auto.

Representatives from the guard forces from Oak Ridge National Laboratory, Y-12, the Oak Ridge and Paducah Gaseous Diffusion Plants all attended the sessions. They will pass information learned on to security forces at their respective plants.

### NRA Services

The NRA is a non-profit organization of more than a million citizens, police officers and servicemen who are keenly interested in firearms — as a recreation, a tool of their trade or as a hobby. It has over 12,000 affiliated rifle and pistol clubs, summer camps,

schools, and enrolled police departments. The agency works closely with many police departments and other law enforcement agencies in connection with their training activity, their youth programs, their range problems and all other activities which deal with firearms and with marksmanship training.

### Consumer Alliance Group Will Organize April 27

The second meeting of the Oak Ridge-Anderson County chapter of the Tennessee Consumer Alliance will be held April 27, 7:30 p.m., at the First United Presbyterian Church, Oak Ridge.

Organization of the chapter will be the main order of business. Consumer Alliance's purpose is to provide means for voicing consumer complaints, conduct studies in areas such as insurance, food and credit, and to work on getting legislation passed which will help the consumer. Membership dues are nominal.

Grayfred Gray, a Nashville lawyer, is chairman of the Tennessee Consumer Alliance. Locally the club is being initiated by Brady and Cyndy Holcomb. Holcomb is in Computer Technology Center, ORGDP.

## MAN Program Develops Space System

(Continued from Page 1)

a separate interagency agreement with the AEC.

### GeMSAEC' Adaptation

Norman G. Anderson, Director of ORNL's Molecular Anatomy Program, will also direct the development of the Gravity-Zero system.

Gravity-Zero will be an adaptation of an automated analytical system called "GeMSAEC" which was designed and built two years ago by Dr. Anderson for high-speed analysis of body fluids such as blood and urine. It is now being used in a number of hospitals and clinics.

Gravity-Zero will be designed to permit astronauts to perform quickly and automatically up to 16 parallel chemical tests on small samples of plasma or serum, based on colorimetric determinations. Results of the tests will automatically be radioed to ground control, and from there action will be recommended to the astronauts by radio.

### Easy Operations

One application of the system would be to quickly analyze the blood and urine of an astronaut if he were to become severely ill during space flight.

The system will consist of an enclosed rotor, drive mechanism and stationary colorimeter for automatically dispensing the sample, mixing it with the necessary

reagents, and measuring the optical density of each of the reaction mixtures during rotation.

Anderson said that if the Gravity-Zero system is successfully developed, it would be useful in hospital emergency rooms and pediatrics offices because it would require very little space and is simple to operate.

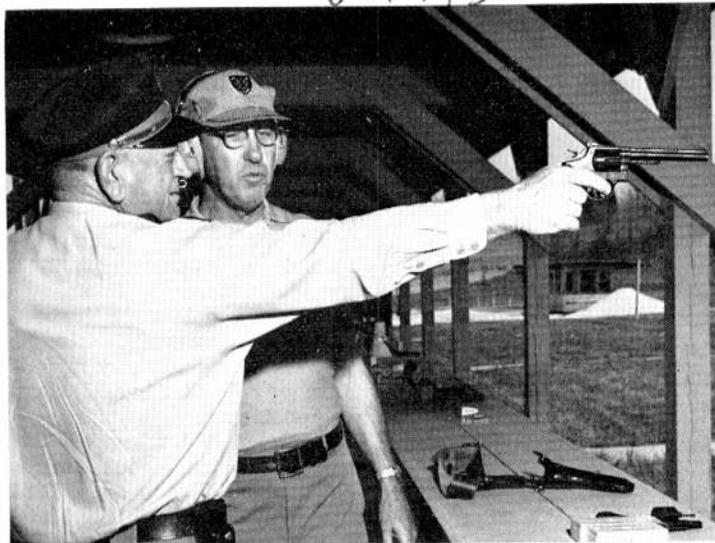
## Y-12ers Sweep Laurels In March Skeet Shooting

Y-12's Tommy Webber led March Trap and Skeet shooters, as five fired under a penalty due to previous winnings. Fred Welfare scored a perfect 50, but was not eligible for top spot!

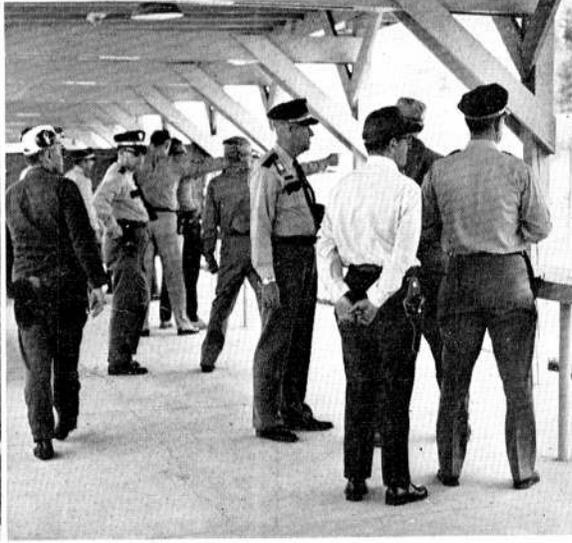
Webber's score was 49.421. He was followed by R. A. Allstun, also of Y-12, with a 48.516. A. K. Van Hull, another Y-12er, came in third, with a 48.130.

### Total March Scores:

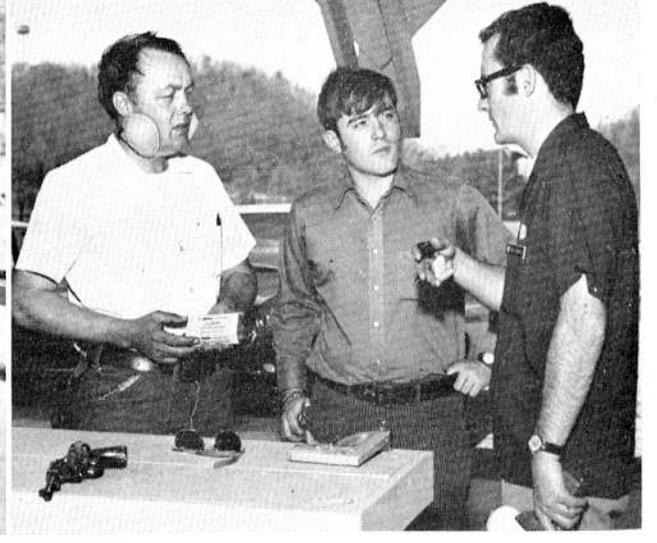
Firer	H'cap	Score
R. A. Allstun, Y-12		48.516
A. Asmanes, Y-12*		49.085
K. W. Bahler, Y-12		47.978
C. G. Brewster, Y-12*		48.263
W. E. Brundage, ORNL*		49.495
P. W. Bullard, Y-12		47.915
W. H. Davy, Jr., ORNL		47.774
B. F. Etheredge, Y-12*		48.516
C. Chadwick		47.981
D. L. Glover, Y-12		47.774
G. J. Kwiecien, ORNL		47.808
V. F. Raaen, ORNL		46.800
B. Searles, Y-12		47.126
A. K. Van Hull, Y-12		48.130
T. R. Webber, Y-12		49.421
F. G. Welfare, ORNL		50.000
*Under Penalty. Previous Winner.		



**RANGE ACTIVITIES** — Lt. G. A. 'Red' May is coached on the firing line by Lt. Harry Thomas, Oak Ridge Police Department. Each firer was assigned a 'coach' who was to advise on stance, proper shooting attitude, safety aspects, and all



other features of firing, in the photo to the left. In the center picture, Harry Hoy inspects the various stages of readiness for firing on the left of the range. In the photograph to the right, University of Tennessee policemen John Johnson, and Gary



Haun, center, get pre-firing advice from NRA's Dale T. Gaskill. The three-day firing instructions were arranged through the NRA by Y-12's Harry C. Hoy. The special instructions are a community service by the NRA.

# THE CARBIDE COURIER

Thursday, April 22, 1971

Page 3

## Soft Tires Can Be Deadly!

Recently a vacationer and wife were killed when a tire on his station wagon blew while he was traveling at 90 mph on an almost deserted Nevada highway. His speed was not illegal, since that state has no fixed limit. But it was fatally imprudent — particularly since the car was heavily loaded, and the tires, unknown to the driver, were under-inflated.

The tragedy should be a lesson to all of us. Under-inflating tires and neglecting to check tire pressures are almost universal failings of motorists. Even though compressed air is available free, the average motorist could hardly be more frugal with it if it cost a dollar a puff. Yet studies show that chronic under-inflation noticeably shortens tire life and jeopardizes the safety of the passenger.

Some people think the chief function of tires is to provide a soft ride. They do far more than that: they are an integral part of the braking system, the steering system, and the transmission of power from motor to road. Under-inflation not only affects the performance of these systems, but can weaken the tire rapidly to the point where it fails. Proper inflation is the factor that can make or break satisfactory performance.

A tire on a car does not hold its perfect doughnut shape but flattens out somewhat when it comes in contact with the road. The tread and sidewalls bend, or flex, to support the car's weight. As the wheel turns, the "foot-print" area changes, so your four working tires, as you drive, are constantly flexing, twisting, distorting. With the inner friction of rubber, cord fabric and wire, this flexing creates heat — and so does the tread friction against the

road. The heavier the car's load, or the softer the tires, or the faster the drive, the more the tires flex and the hotter they get.

Heat is a tire's worst enemy. It cuts both its strength and its wear. If allowed to build up excessively, it may literally cause the tire to come apart. Yet drivers continue to build excessive heat when they set off along the turnpike at turnpike speeds with tires that are overloaded or under-inflated or both.

## Poets for Safety

Are there any budding poets at the ORGDP? The Courier will print your two-line rhymes followed by the punch-line "But I'll take Safety." Examples below may help you get started.

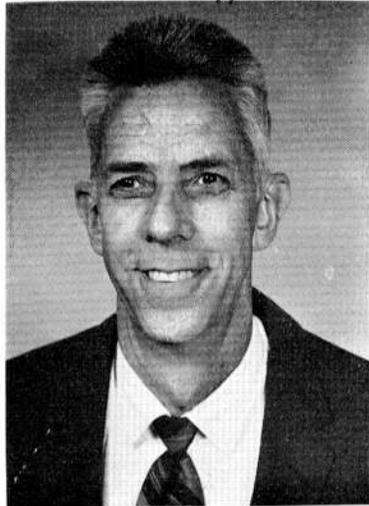
You can race 'cross the place  
And fall flat on your face  
—But I'll take safety!  
You can use an ungrounded outlet,  
Turn red, white and violet  
—But I'll take safety!  
If you grind without glasses  
Enroll in Braille classes  
—But I'll take safety!  
You can clutter the aisle  
Bust a leg after while  
—But I'll take safety!  
You can lift with your back  
Put it all out of whack  
—But I'll take safety!

## SAFETY SCOREBOARD

OUR PLANT  
Has Operated  
144,000 Safe Hours  
Through April 15

Since last disabling injury on April 5

## Jack Smith Named Senior Inspector In Barrier Facility



Jack Smith

Jack Smith was promoted recently to senior inspector in the Barrier Plant, Operations Division.

Smith came here in February, 1945. In the early days, he played both softball and basketball in plant leagues and was the recipient of the "Good Sportsman" award.

He was born near Athens, Tenn., and graduated from Pole County High School in Benton. He is married to the former Irene Anderson of Maryville. They have three children, Susan, living in Fullerton, Calif.; Jack E., in the U. S. Navy stationed at Key West, Fla.; and Byron, a student at Robertsville Junior High. The Smiths live at 163 West Wadsworth Circle, Oak Ridge.

Smith's outside interests include hobby farming, spectator sports, and reading, especially poetry.

## 'Programmed Maintenance' Is Topic Of Mathews Report Presented in Boston

Clyde E. Mathews, Power and Utilities Department, Operations Division, gave a report entitled "Programmed Maintenance at the Oak Ridge Gaseous Diffusion Plant" at the Doble Engineering Client Conference being held in Boston, Mass., this week, from April 19 to 23.

Excerpts from Mathews' talk: "Maintenance scheduling and record keeping on a electrical system of the magnitude and complexity of ORGDP can best be done by computer, therefore approximately two years ago we instituted programmed maintenance.

"The term programmed maintenance has been applied to preventive maintenance scheduled by automatic data processing machines.

"Some programs are broad, giving detailed instructions as to the work to be performed. Some include cost collecting. Others give only general directions to maintenance personnel. Each organization must develop a program suited to its own individual needs.

"Having highly skilled craftsmen with long experience at the Oak Ridge Gaseous Diffusion Plant (ORGDP) made detailed work instructions unnecessary. Costs are collected by other programs. Therefore, our objectives were:

1. To automatically schedule routine maintenance at predetermined frequencies.
2. To eliminate paper work for field personnel.
3. To compile and maintain a complete maintenance history of every device and system.
4. To provide a means whereby maintenance records could be obtained at places remote from the computing center.

"Prior to the development of programmed maintenance, the Power Operations Department at ORGDP had responsibility for the maintenance of the transmission and distribution systems. Maintenance on the utilization system was divided among a number of operating departments. After the program was initiated, all electrical equipment in the plant down through the last drawout type circuit breakers was included, thus permitting all maintenance on the three systems to be scheduled by machine and coordinated by Power Operations.

"SUMMARY — We have in large measure fulfilled our original objectives. Programmed maintenance has been in use for approximately two years to schedule work on the transmission, distribution, and utilization systems at the Oak Ridge Gaseous Diffusion Plant. Approximately 6,000 items are included in the program. Each item is automatically scheduled at predetermined frequencies. Paper work has been reduced to



Clyde E. Mathews

handling scheduled data cards and management reports. A system has been developed for compiling and maintaining a complete maintenance history of each device included in the program. Provision is made for recording unscheduled occurrences in addition to scheduled work. We have found programmed maintenance to be a major improvement over manual scheduling."

R. V. Rinehart, Computing Technology Center; B. J. Schaefer, Fabrication and Maintenance and T. E. Haynes of Operations made extensive contributions toward the development of this project.

## Women's Bowling

Mary Foley again made a clean sweep of all the honors in the April 6 session of the Women's League. She had a 233-255 single game and a 550-616 series.

Bowler-of-the-Week laurels were well divided in the March 30 matches. Helen Hobson had high single scratch game, a 198. Jo Ann Johnson had the best single handicap score with 236. Mary Foley had a 504 scratch series and Scarlett Osborne had high handicap series with a 633.

Pay-Offs	40	Pin-Ups	24½
Up-To'ners	33½	Hot Shots	19½
Wood Bees	29½	Bowlettes	19
Spotters	28	Hits, Miss's	14

## 15 Years' Service

D. C. Randolph	4-09-56
R. E. Nier	4-09-56
J. W. Bowen	4-23-56
B. C. Williams	4-30-56

## CLEAN UP POLLUTANTS

How about fighting pollution in your own back yard?

Dried-out brush, dead grass, old papers and other litter left by Winter can be breeding places for fire. Clear it out so you won't give fire a place to start.



**ACHIEVEMENT AWARDS**—Jack C. Young, left, chairman of the Training Advisory Group and J. C. Hall, superintendent of Fabrication Shops, recently presented plaques to F. D. Harris, Jr.; C. L. Tate (maintenance mechanics); and G. L. Bowling (machinist) following their successful completion of the Helper Training Program.

## THE CARBIDE COURIER

Published Biweekly

Editor ..... H: J. Mayberry  
K-1002 Building, Tel. 3-3097

# These Employees Reach 25 Years Service This Month



## 'Elk of the Year' Title Recognizes Contributions of C. C. Goldenschue

C. C. Goldenschue, shift superintendent in Shift Operations and Security, was recently named "Elk of the Year" by Oak Ridge Lodge No. 1684, Benevolent and Protective Order of Elks. This award is in recognition of his continuous dedication and service to the lodge for many years.

Goldenschue has been employed here since July, 1944, first in the Operations Division, then in Shift Operations. Before coming with Union Carbide, he worked in St. Louis, Mo., three years with the U. S. Cartridge Company and 18 years for Valspar Paint Company.

A native of New Braden, Ill., Goldenschue attended public schools in Bellville and East St. Louis. Mrs. Goldenschue is the former Kathryn Haley of St. Louis. They live at 421 New York Ave., Oak Ridge. They have three children, Clyde M., with Monsanto in Texas City, Tex.; Regina Mooneham, Hidden Hills, Calif.; and Donald, Sacramento, Calif.



C. C. Goldenschue

In addition to his activities with the Elks, Goldenschue travels extensively and enjoys all spectator sports.

## Needed: Clean Air; Facts About Pollution

### Dirty Air Costs U. S. Over 12 Billion A Year!

1. **It ruins vegetation, flowers, crops.** Sulphur, fluorides and ozone in air affects row crops, flower gardens, trees, parks, citrus groves, grains, cotton, tobacco and fruits all over the U. S. Annual crop damage alone is estimated at \$500 MILLION.

2. **It makes paint peel and discolor.** Polluted air affects the pigment in paint and causes it to discolor and peel. A major maintenance factor in urban areas.

3. **It adds to house and clothes cleaning bills.** Dirty air damages textiles, discolors dyes, soils curtains, leaves grime in clothes, cars and homes.

4. **It kills cattle and destroys feed.** Areas near sources of industrial air pollution, even in the country, suffer from poisoning of cattle due to fluorides and other pollutants.

5. **It rusts iron, and tarnishes silver.** Steel deteriorates 2 to 4 times faster in air-polluted cities than in rural areas. England estimates 1/3 cost of replacing train rails is due to sulphur pollution.

6. **It cracks tires, deteriorates nylon.** Dirty air deteriorates rubber, causing side walls to crack. Eats away stone statuary, causes runs in nylon stockings and affects leather, glass and paper products.

7. **It wastes fuel in power plants.** Incomplete combustion in factories and power plants not only pollutes the air but wastes \$300 million worth of sulphur annually.

8. **It blocks out the sun—causes higher lighting bills.** In Chicago, it is estimated that air pollution reduces sunlight by 40%!

IT COSTS EACH AMERICAN ABOUT \$65 PER YEAR.

(To be continued in next issue)

## Two More Booklets In Series Available

Before 1950 nuclear science was a subject of interest to only advanced students. Today, however, even junior high schoolers are interested in learning the basics of atomic energy. Unfortunately, the literature on nuclear science designed for such young scholars is limited.

To help fill the gap in the availability of educational materials and to strengthen science education in America, the Atomic Energy Commission has published a new series of booklets called "World of the Atom" and specifically designed for the junior high school student. The illustrated booklets are in paperback form and were written by non-government scientists, writers, and educators.

Already published in the new series are "Atomic Pioneers" and "The Mysterious Box: Nuclear Science and Art." Other titles in the series to be published in the next 12 months include "Nature's Invisible Rays," "Atomic Energy and Your World," and "The Mystery of Matter."

"Atomic Pioneers," Book I, is the first of a group of four biographical booklets that will describe the contributions to atomic science made by 100 men and women over a 2,550-year time span. Book I covers the period from 5 B.C. to the middle of the 19th century. "The Mysterious

## Recycling 'Junk' Proves Worthwhile

Engineering and ecology are advancing hand-in-hand at the Atomic Energy Commission's National Accelerator Laboratory near Batavia, Ill., thanks to an innovative scientist's unique approach to a construction problem.

Robert Sheldon, a chemist and materials specialist in the main ring section of the new 200 billion electron volt 'atom smasher' has developed a strong, inexpensive structural panel incorporating a most unusual building material—discarded soda and beer cans.

The panels — sandwiches of cans packed in honeycomb-like patterns between layers of strong plastic — are designed for use in a geodesic dome forming the roof covering part of NAL's experimental facilities.

### Extremely Strong

Sheldon said his panels are fabricated as triangles, nine feet on a side. Each contains approximately 850 cans, he said.

Sheldon, formerly of the Rutherford High Energy Laboratory, in Great Britain, explained that

"Box" presents, in short story form, the nuclear methods used to establish the age and authenticity of oil paintings.

Single copies of the two booklets in the World of the Atom series are available without charge from the Technical Information Office of the AEC.

the panels are extremely strong and yet translucent enough to allow the building's interior to be adequately lighted.

"It was the need for a highly translucent material that really led to our development of the idea," Sheldon said. "The commercially available honeycomb-type building materials were either too opaque or very expensive."

### 'Honeycomb' Effect

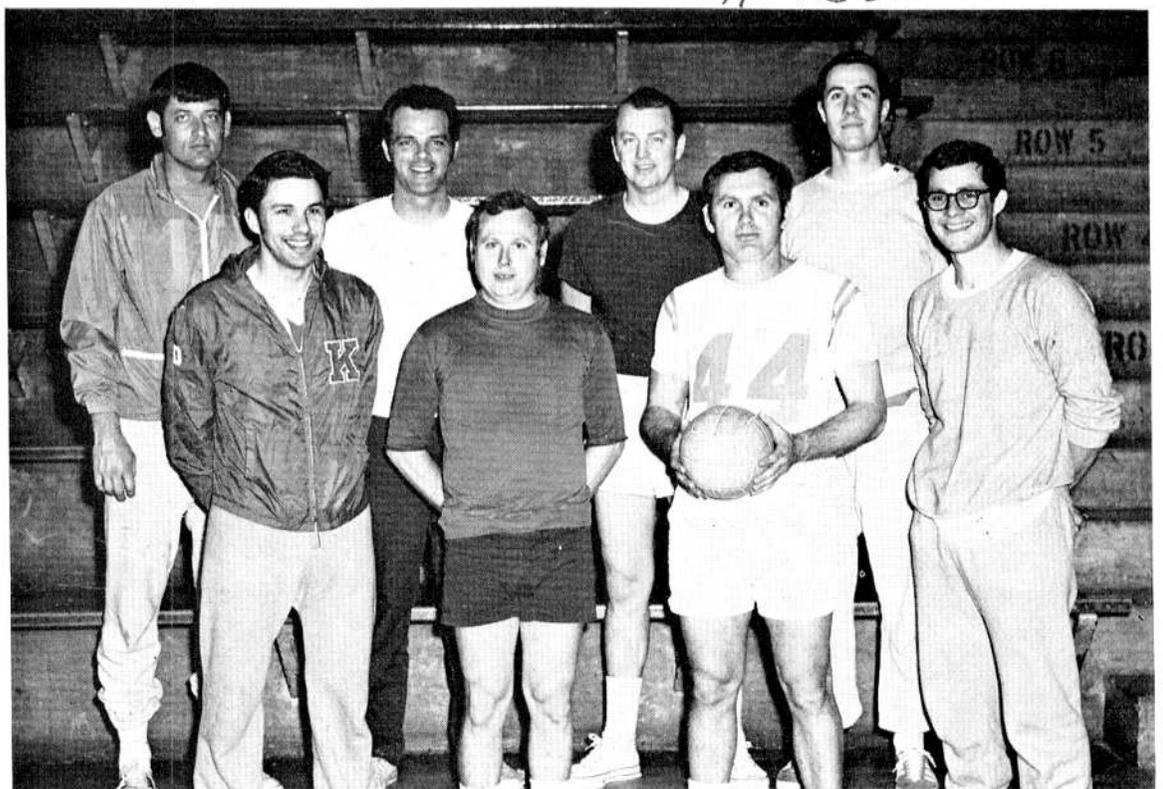
Sheldon explained that to form his highly translucent panels he first removed the cans' tops and bottoms and then bonded the resulting cylinders to the plastic sheeting with adhesive. As a result, the cans block little of the light passing through the panels, giving the panels a honeycomb appearance. He has applied for a patent on the idea, he said.

NAL employees are aiding the project by depositing their empty soda cans in collection baskets that have been set up around the laboratory. Some are bringing cans from home as well. Neighboring communities and even commercial container companies have helped by contributing to Sheldon's project.

"We need about 100 panels for this project," Sheldon said. "This means we need about 100,000 cans. But I am sure we will have no trouble getting all we need."

### SAVE A BUCK

You make a buck. You spend a buck. So why not save a buck — through the Payroll Savings Plan for United States Savings Bonds.



**VOLLEYBALL CHAMPS**—The K-25 Hawks recently won the three-plant volleyball tournament. From left, are Ralph Clough, Wes Peters, Sam Duncan, Jerry Howard, Jack Cornett, Bob Seyfried, Fred Wetzel and Pete Leslie. Other members of the squad not pictured are Bob Waters and Jim Stout.

## Duckworth Awarded UT Degree in Engineering



**Chad L. Duckworth**

March graduating exercises at The University of Tennessee saw Chad L. Duckworth awarded a B.S. degree in mechanical engineering. The college study was done on the G.I. Bill of Rights and the Union Carbide Educational Assistance Program.

Duckworth came to Y-12 April 3, 1961, after attending the University of Chattanooga from 1958 maybe until 1960. He served four years prior to that in the U.S. Air Force.

A native of Murphy, N. C., Duckworth is married to the former Brenda Underwood. They live at Route 15, Skyblue Lane, Knoxville, with their two children, Holly and Kenneth.

## Prominent Y-12 Ceramic Engineer Dies April 12th

Louis M. Doney, Chemistry Development Department, died en route to work, April 12, from an apparent heart attack.

Mr. Doney came to Y-12 in 1960 after working nine years as a ceramics engineer at Oak Ridge of Illinois.



**Doney**

An active sportsman and conservationist, Mr. Doney was past pres-national Laboratory. He was a native of Illinois, and was graduated from the University of the Anderson County Sportsman Club, a member of the National Rifle Association; chairman of the Southeast Section of the American Ceramic Society; chairman of that society in 1959; was a fellow of the American Ceramic Society; a member of the board of Nuclear Fellows; past president of the Karns Lions Club; and past president of the Knoxville Men's Club. At the time of his death he was chairman of the distribution committee for Lou Williams' book "The Tennessee Conversation Revolution," due shortly off the press.

Funeral services were held at the graveside at Sherwood Memorial Gardens on Alcoa Highway.

Mr. Doney is survived by his wife, the former Virginia Allen. The Doney home is at 817 Cha-teaugy Rd., Knoxville.



More Y-12ers mark important dates with Union Carbide during the last part of April. Congratulations.

### 25 YEARS

**Norman A. O'Neal**, Chemical Services, April 28.

**Chester I. Sweeney**, Utilities Administration, April 28.

**William D. Cline**, Law Department, April 29.

### 20 YEARS

**Robert Q. Love**, Dispatching Department, April 17.

**Emory E. Burns**, General Field Shops, April 17.

**Fred A. Harris**, H-1 Foundry, April 17.

**George H. Caylor**, Special Services, April 17.

**Kenneth E. Smith**, Environmental Control Engineering, April 18.

**James N. Brewer**, General Shop Job Liaison, April 18.

**Dorothy H. Hubbard**, Chemical Services, April 18.

**Keith F. Martin**, Research Services, April 18.

**Kinser C. Blankenship**, Dimensional Inspection, April 18.

**Louise A. Warmley**, Building Services, April 20.

**Laura B. Hawkins**, Beta Two Chemistry, April 20.

**Roy Turner**, Process Maintenance, April 20.

**Victor D. Sherrod**, General Machine Shop, April 23.

**Leroy T. Sliger**, General Expediting and Auxiliary Services, April 23.

**Martha J. Bridges**, Materials Testing Support, April 23.

**William L. Boutwell**, Chemical Services, April 23.

**Paul J. Long**, Engineering Test Systems, April 23.

**Roscoe A. Hamrick**, Production Radiation Testing, April 24.

**Charles G. Peck**, Chemistry Development, April 25.

**John C. Daniels**, General Expediting and Auxiliary Services, April 27.

**Miles C. Dancy**, Building Services, April 27.

**Paul E. Woodby**, General Metal Fabrication Shop, April 27.

**Warren D. Foust**, Buildings Grounds and Maintenance Shops, April 27.

**Samuel C. Simmons**, General Field Shops, April 30.

**Alonzo A. Curtis**, Machine Maintenance, April 30.

**Edith B. Duckworth**, Alpha Five Processing, April 30.

**Homer D. Bozeman**, Utilities Administration, April 30.

**Joseph D. Davis**, General Machine Shop, April 30.

**Lucian C. Peters**, Production Analysis, April 30.

**Carl M. Neff**, Production Analysis, April 30.

**Newman H. Wise**, Graphite Shop, April 30.

**Samuel L. Gallman, Jr.**, Quality Assurance, April 30.

**Roy B. Dunlap**, Buildings, Grounds and Maintenance Shops, April 30.

**Thomas E. McCarroll**, Research Services, April 30.

**Louis M. Doney**, Chemistry Development, April 30.



**ATTEND SEMINAR**—Recently a number of craftsmen, technicians, inspectors and supervisors attended a three-day seminar in Y-12 on 'Pressurized Gas Safety.' The seminar was conducted by safety engineers from the Hazards Department of Lawrence Radiation Laboratory, Livermore, Calif.

## Napier Speaks on Carbon At CET Meet in Nashville

Bradley Napier, Jr., Development Division chemical technician, will discuss "Carbon, the Rediscovered Element" at the Certified Engineering Technicians annual meeting in Nashville, May 7.



**Napier**

from use as heat-resistant construction materials to transplant items for the human body. He will point out that carbon can be made into such products as diamonds, graphites, yarns, woven cloth, knits, foams and carbides.



**Rider wanted from Maryville to any portal, straight day.** Bob Johnston, plant phone 3-5883, home phone Maryville 983-1114.

**Riders wanted, or will join car pool, from Rocky Hill section, Knoxville, to any portal, via Lovell Road, straight day.** Jack Stephens, plant phone 3-5465, home phone Knoxville 588-1741.

**Ride wanted, or will join car pool, from Byington area, Karns, to North or Biology Portal, straight day.** Mark Jernigan, plant phone 3-5735, home phone Knoxville 584-6740.

**Ride wanted from Highway 70, Ford Road, near Eton's Crossroads, to East Portal, straight day.** David H. Ray, plant phone 3-5445.

### TO HAVE-TO HAVE NOT

Explaining why he never married, the old farmer declared, "I decided very early that I'd rather go through life wanting something I didn't have rather than having something I didn't want."

## Y-12ers Attend Seminar On Pressurized Gas Safety

Recently, 39 craftsmen, technicians, inspectors and supervisors attended a three-day seminar in Y-12, on "Pressurized Gas Safety." It was led by three safety engineers from the Hazards Department of Lawrence Radiation Laboratory, Livermore, Calif.

The seminar was part of a program being conducted by the "Ad Hoc Committee for High Pressure Safety." This committee is made up of representatives from Engineering, Development, Operations, and Maintenance Divisions. Its functions are threefold:

To review proposed high pressure systems facility designs — pressures 3,000 psi and greater.

To perform safety inspection surveys of existing high pressure facilities in the plant.

To prepare "Safety Standards for High Pressure Systems Facilities" for use with other-than-nuclear facilities. The primary purpose of these standards, expected to be published next year, is the safety of personnel through pro-

per design, materials, construction, operations, maintenance, and housing of high pressure systems covered by these standards.

Members of the Ad Hoc committee here are J. M. Googin, advisor; H. A. Pohto, chairman; E. L. Bently, Safety; R. L. Huddleston, Development; J. P. Jois and C. E. Oldham, Engineering; D. D. Stroud and J. L. Reagan, Maintenance; J. C. Thompson, Jr., and C. F. Klein, Mechanical Inspection; and C. K. Valentine, Operations.

## Sunflowers, Rollmasters Compete for C Crown!

The Rollmasters and Sunflowers squared off Monday night for the big roll-off in C Bowling action, to determine who are the champs. The Masters took the first half . . . the Sunflowers finished three out in front in the second half, the nearest contenders being the Anodes, whom the Flowers swept three points from.

Red Halsey, Sunflowers, was big man of the week last week posting a score of 247 for a single, and a 644 for a series! Bill Ladd, Rollmasters, rolled the season's highs . . . a 266 game . . . a 680 series, which is not only high in C League rolling, it's high anywhere!

J. R. Norris, Jaguars, recently put a 255 game, a 587 series under his belt.

Team	W	L
Sunflowers	43	17
Anodes	40	20
Badgers	37½	22½
Instrument Engineers	35	25
Rollmasters	34	26
Jaguars	32	28
Rounders	29½	30½
Parbusters	27	33
Fireballs	26	34
Purple Pygmies	21	39
Royal Flush	20	40
Big Five	15	45

### POLYINTELLIGENCE

Polyethylene is a high tensile strength plastic used in hundreds of modern-day products. Examples: detergent and bleach bottles, milk and soft drink crates, sports accessories and stadium seats, man-made fabrics and coatings, piping and housewares, auto fender guards and formed boxes, toys, tote bins and wheelbarrows.

### SAFETY SCOREBOARD

The Y-12 Plant Has Operated 3,020,000 Man-Hours Or 76 Days (Unofficial Estimate) Through April 18 Without A Disabling Injury SAFETY AT HOME, AT WORK, AT PLAY



**MIXED CHAMPS**—Recently crowned champions in the Y-12 Mixed Bowling League are the Twisters . . . from left, Donna and Spence Ferguson, Lou and Bill Sahr. The Twisters downed the Alley Cats April 7 in the League's roll-off, putting them down by 44 pins.

## Twisters Take Mixed Alley Roll-Off From Alley Cats by a 44-Pin Margin

The Mixed League crowned a leader last week, as the Twisters took a roll-off by a margin of 44 pins. They defeated the Alley Cats by a wide difference of pins in game one . . . 817 to 617. The Cats made a gallant attempt to overcome the deficit but it was too much. The Cats won games two and three, but by not enough pins.

Spence Ferguson, Twisters, took a high game of 220. His spouse, Donna, rolled a 171 game to tie with fellow teammate Lou Sahr for high women's honors. The Sahrs (Bill and Lou) make up the foursome on the victorious squad.

The losing Cats consist of Jeri Kobisk, Vickie Steward, Bill Patrick and Bill Johnson.

The Alley Cats won the last half of the league . . . the Twisters the first half. Automatically, the Alley Cats become second-place victors of the entire season.

Play will get underway next fall on September 8.

### FIRES KILL

Fires kill. Keep your home free from rubbish and clutter on which fire breeds and feeds.

## Swingsters Take Half, Now To Face Markers

The Swingsters have won the second-half battle in the Y-12 Classic Bowling League and tonight are scheduled to take on the first-half winners, the Markers, for the overall championship.

In closing league action, the Bumpers took all four from the Cubs, and six other clubs won three of four of their opponents—the Swingsters over the Eagles, the Markers over the Rebels, the Screwballs over the Playboys, the Smelters over the Eightballs, the Has Beens over the Rippers, and the Rojos over the Tigers. The Splinters eked out two wins and a tie in four with the All Stars.

Final standings:

Team	W	L
Swingsters	42	18
Bumpers	40	20
All Stars	39	21
Markers	37	23
Screwballs	35½	24½
Eightballs	35	25
Playboys	32	28
Smelters	29	31
Rebels	28	32
Has Beens	28	32
Eagles	25½	34½
Rippers	25	35
Splinters	24½	35½
Tigers	21½	38½
Rojos	20	40
Cubs	18	42



**'SERVICE TO MANKIND'**—Mrs. Thomas A. Williams, Kingsport City Mission, was recently awarded the Metropolitan Sertoma Clubs' 'Service to Mankind' award in recognition to her more than '35 years of continuous service to the Kingsport City Mission in providing for the spiritual and physical needs of the unfortunate.' The award was given by Gene McFarlane, above, from Tennessee Eastman. Mrs. Williams is the mother of T. A. Williams, in Y-12's Plant Records. She has operated the mission alone since the death of her husband.

## Y-12 Milestones

(Continued from Page 3)

### 15 YEARS

- Charlie B. Burris**, Dimensional Inspection, April 22.
- Ernest W. Henline**, Building Services, April 24.
- Harry C. Webb**, 9766 Machine Shop, April 26.
- Charles E. Rose**, 9215 Rolling, April 30.
- Billy A. Cochran**, Process Maintenance, April 30.
- John C. Johnson**, Product Information Center, April 30.

### 10 YEARS

- James W. Baker**, Alpha Five West Shop, April 17.
- Hobart M. Salyers, Jr.**, Beta Four Heavy Machine Shop, April 17.
- Clarence S. Sherrod**, A-2 Shops, 9212, April 17.
- William H. Foust**, Beta Two Shop, April 24.
- Bobby R. Hansard**, Assembly Operations, April 24.
- John T. Schmitt**, Research Services, April 24.
- Troy E. Collins, Jr.**, Chemical Services, April 24.



**Miss Carolyn Elaine Gheen GHEEN—LEWIS**

The engagement of Miss Carolyn Elaine Gheen to James Robert Lewis is announced by her parents, Mr. and Mrs. William H. Gheen, Jr., Pleasant Ridge Road, Knoxville. Mr. Gheen is employed in Y-12's Tool Grinding Department. Mr. Lewis is the son of the late Mr. and Mrs. James R. Lewis.

Miss Gheen has her own dance studio in Knoxville and is also employed in the Chemical Technology Division at Oak Ridge National Laboratory. She is active in the Virginia Avenue Methodist Church, where she teaches Sunday school, and is a member of the choir.

The bridegroom-elect attended The University of Tennessee and is employed at Costner-Eagleton Motors, Alcoa.

A June 12 garden wedding is planned at the Gheen home.

## Splitters Still on Top

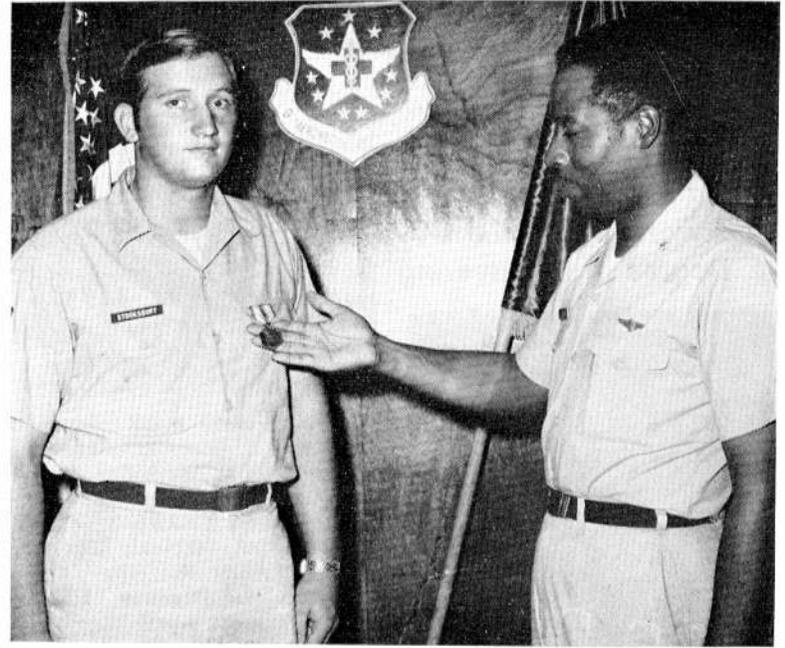
In the Y-12 Carbide Bowling League, the Splitters still hold top spot after winning two of three over the Raiders in most recent league action.

Also taking two of three were the Late Comers over the Marauders, and the Mix-ups over the Comets. Meanwhile the Rollers rolled over the Woodpeckers in all three, as did the Wildcats over the Pin Boys.

The Mix-ups copped all team honors — the scratch single with 789, handicap with 872, scratch series with 2176 and handicap with 2425.

Standings:

Team	W	L
Splitters	24	9
Late Comers	23	10
Mix-ups	19	14
Rollers	19	14
Pin Boys	17	16
Raiders	16	17
Woodpeckers	15	18
Wildcats	15	18
Marauders	10	23
Comets	7	26



**RECEIVES COMMENDATION**—Sgt. George E. Stooksbury, son of T. E. Stooksbury, Beta Two Shop, receives the U. S. Air Force Commendation Medal for meritorious service in Vietnam. Major Jerome F. Dwyer, Jr., right, assistant director of administration, Clark Air Force Base, makes the presentation.

## U. S. Air Force Commendation Medal Awarded Sgt. Stooksbury for Service

Sergeant George E. Stooksbury, U. S. Air Force, was recently awarded the Air Force Commendation Medal for meritorious service from January 16, 1970 to January 1, 1971.

The citation read: "Sgt. George E. Stooksbury distinguished himself by meritorious service as an administration specialist, administrative branch, Tactical Air Control Center, Deputy Chief of Staff Operations, Headquarters Seventh Air Force, Tan Son Nhut Air Base, Republic of Vietnam, from January 16, 1970 to January 1, 1971. During this period, Sgt. Stooksbury demonstrated outstanding initiative and selfless devotion in the assumption of the administrative functions of the directorate. He willfully contributed of his knowledge and energy in effectuating a unified administrative branch. The distinctive accomplishments of Sgt. Stooksbury reflect credit upon himself and the United States Air Force."

## 'Life Chain' Film Available at AEC

A new motion picture, featuring striking color nature photography to depict an important ecology study in the Western United States, is now available for loan to the public from the Atomic Energy Commission.

The 16-mm film with a running time of 28 minutes is entitled "Endless Chain." It was produced for the AEC by Tom Beener, of Films of the Great American Outdoors, who is nationally known for his documentaries on nature.

The film explains Project ALE (Arid Land Ecology) which is an ecological sanctuary set aside by the AEC on the isolated desert steeps of southeastern Washington State to investigate arid lands representative of two-thirds of the earth's lands.

The young airman is the son of Mr. and Mrs. Thomas E. Stooksbury, Brown Lane, Powell. He is a 1968 graduate of Powell High School, and received his basic training at Lackland Air Force Base, San Antonio, Tex., and completed the administrative specialist course at Keesler Air Force Base, Biloxi, Miss. His father is in Y-12's Beta Two Shop.



**BETWEEN ACADEMICS**—Marksmen exchange stories during the educational part of the NRA-sponsored seminar held last week for Nuclear Division security forces, police from Oak Ridge, Knoxville, and The University of Tennessee, as well as Atomic Energy Commission security personnel. From left, Y-12 Guard Captain J. P. Watts, James E. Daugherty, police training, NRA, and Harry C. Hoy, Y-12. Hoy is a patron of the NRA. See related story on page 2.

# Heart Attack Warnings

By T. A. LINCOLN, M.D.

The recent sudden death of Gov. Thomas E. Dewey has focused attention on the deficiencies of periodic physical examinations. He had had a negative examination just a short time before his fatal heart attack. Two important lessons can



Dr. Lincoln

be learned from this and other similar tragedies. Coronary heart disease is difficult to detect in a routine examination and being alert to warning symptoms is just as important the day after a negative examination as it is six months or a year later.

In many cases the first symptom of heart disease is the fatal attack itself. Twenty-five percent of those experiencing their first attack will die within three hours of the onset of symptoms and frequently before they reach a hospital. In Framingham,

Mass., where an intensive prospective study of heart disease has been conducted for 14 years, 78 out of 120 (65 percent) of the deaths occurred outside of the hospital. Sixty-two (51 percent) were sudden.

Little can be done to save these victims, although mobile and hospital coronary care units have saved some of those who survived long enough to get under their care.

## Symptoms Not Realized

In the individual who has no symptoms, coronary heart disease is usually detected by an abnormal electrocardiogram. Unfortunately, the ECG is often perfectly normal even in advanced disease. The Master Two Step exercise electrocardiogram will uncover many abnormalities but is not sensitive enough. By exercising a patient closer to his maximum, for example on a treadmill or bicycle ergometer, the sensitivity can be further increased. Both of these tests are time consuming and involve some risk so are not suitable for most routine examination programs. They are useful in the cautious investigation of a typical chest pain for which no diagnosis can be made.

In the Framingham study, 86 percent of those who eventually died of a heart attack had taken their last available biennial examination. One-half had been classified as free of any heart disease. Much more was known about the cardiovascular status of these people than in the general population, still the disease was not detected.

A surprising number of heart attack victims will have had warning symptoms in the hours, days or weeks before the attack. In most cases, the significance of these symptoms is not realized by the patient.

## Warning Attack

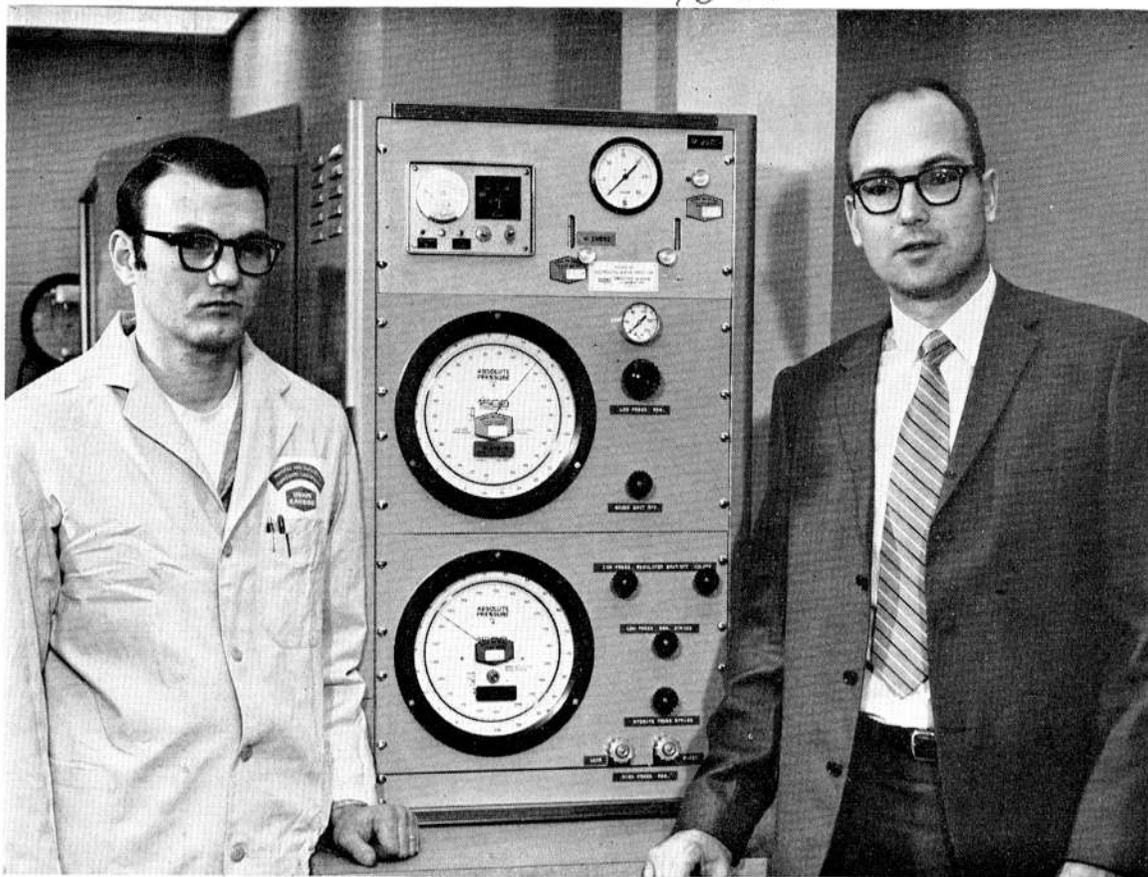
The incidence of warning symptoms varies from a low of only 15 percent in one study to a high of 65 percent in another. The difference is due to the different criteria used to define "significant" prodromal symptoms and how soon and how intensive the review of symptoms occurred.

In a study of 100 consecutive heart attack victims who survived, Dr. Paul Wood of the Institute of Cardiology in London found that warning symptoms were present for an average period of three weeks in 45 percent of the cases. In several cases, however, the warning came only one or two days before the attack.

In another study conducted in the Coronary Care Unit of the New York Hospital by Dr. Henry Solomon and his associates, 65 percent of 100 consecutive heart attack victims gave a history of suggestive symptoms preceding the actual heart attack. The shortest interval between symptoms and the attack was 14 hours and the longest was two months. The most common interval was one to three weeks.

## Chest Pain Common

Chest pain was by far the most common prodromal symptom. It was usually described as a squeezing pressure or heaviness located behind the breast bone. It typically got worse in a crescendo and then faded. It occasionally occurred in the upper back, "pit" of the stomach, left shoulder and arm or in the lower jaw or neck. It frequently came on while walking or climbing stairs and disappeared promptly after slowing down. Episodes were usually brief in duration and



**SUBJECT OF PAPER**—A low-range moisture generating instrument will be the topic of a paper at the Instrument Society of America's Southeastern Conference in Gatlinburg, May 13-15. Richard F. Wolny, right, will detail the instrument at the May technical meeting. Stephen D. McFarland, left, technician in Electrical and Electronics, assisted in the design and development of the instrument.

## SEVIN—A SELF-DESTRUCT

Union Carbide's SEVIN will self-destruct in seven days. After destroying the bugs, it destroys itself. In a week it begins breaking down into harmless parts. SEVIN, a carbaryl insecticide, gets rid of bugs without harming the environment, or ecology. It does not build up in living tissue, like birds, fish, or people, which is one reason it is one of the most widely used bug killers in the world. Here in the United States, it is used to destroy the gypsy moth, a creature of the Northeast that thrives on oak and shade trees, but will take on an entire forest if he's in the mood. The first year he feeds on a tree, stripping it bare. If he decides to come back for seconds, the tree dies.

were also brought on by eating or an emotional upset. Sometimes, however, there was little more than a steady heaviness in the chest. Common accompanying symptoms included general fatigue, palpitation, "choking", nausea, dizziness and sweating.

If the significance of warning symptoms were appreciated and patients given maximum medical care, a number of lives could probably be saved. The actual heart attack may not be prevented, but if it occurs in the hospital it is less likely to be fatal.

## Early Symptoms

My colleagues will criticize me for creating "cardiac neurotics." It is probably true that the patients who need to report their symptoms, won't, and those who are just anxious will come back time and time again. One major problem all physicians have is believing the anxious patient. He cries "wolf" so often he is hard to believe. The difficulty is that excessive worriers occasionally have heart attacks!

When one considers that a man in this country now has about one chance in five of having a heart attack before age 60, the need to report early symptoms is obvious. The evaluation of such symptoms is a difficult task. Whether or not to perform various testing procedures is a matter of professional judgment.

## Moisture Generating Instrument Topic For Wolny Paper at ISA Conference

A low-range moisture generating instrument has been developed by Union Carbide engineers at the Oak Ridge Y-12 Plant.

The instrument, developed in support of U. S. Atomic Energy Commission programs, will be described in detail by Y-12's Richard F. Wolny at the Instrument Society of America's 17th Southeastern Conference in Gatlinburg, May 13-15.

The instrument makes use of the fact that magnesium perchlorate tetra-hydrate will emit a predictable amount of moisture in the 0.2 to 2,000 parts per million range, according to the pressure and temperature imposed

upon it. Such an instrument should prove valuable to calibration laboratories and to manufacturers of low-range moisture instruments.



**ISA PAPER**—W. S. Pappas will give a paper on the principles and design of special analytical instruments developed at the Oak Ridge Gaseous Diffusion Plant at the 17th Annual Southeastern Conference of the Instrument Society of America at Gatlinburg, next month. The paper was co-authored by Pappas, J. G. Million and C. W. Weber.

## 'View from Bridge' Opus at Playhouse

"A View from the Bridge," Arthur Miller's drama of a man's fatal passion for a young girl, opens at the Oak Ridge Playhouse Friday, April 23 at 8:20 p.m. It will continue April 24, 30, May 1, 7 and 8. Rates for students and AARP members are in effect for all Friday performances.

Arthur Miller said of his play, his fifth success: "It's not designed primarily to draw tears or laughter, but to strike a note of astonishment at the reasons that make a man endanger and risk his life." It deals with an Italian longshoreman who becomes so bewildered by passions he can't understand that he is driven to acts of brutal fury, entirely out of context with his previous kind and gentle life.

Art Dworkin, Richard Lyon, Pete Angelini, Frances Mashburn, Karen Warner, and Ernest Earley have leading roles in the play.

Critics consider this one of Miller's best plays, and it received high critical praise all over the world.

Tickets are on sale at the box office.

## NEWS

Published Bi-Weekly For The Employees Of UNION CARBIDE CORPORATION NUCLEAR DIVISION

JAMES A. YOUNG ..... Editor



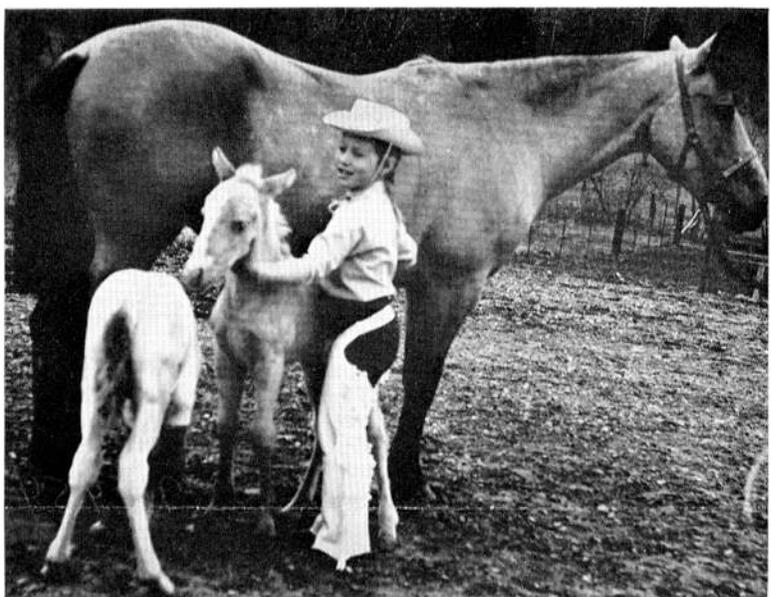
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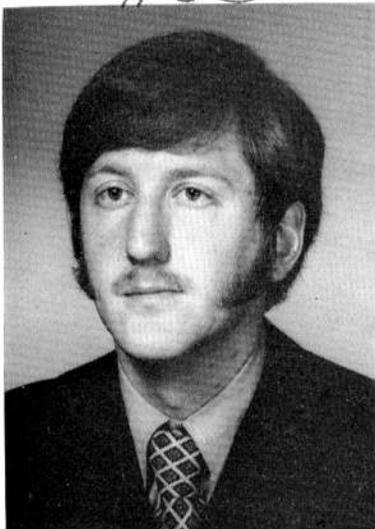


**MYSTERY GIRL**—Laura Grumbach sits astride Mystery Girl, ready for Saturday's annual show at the East Tennessee Riding Club's stables, Tuckeegee Ave., Oak Ridge. Laura is the daughter of W. J. Grumbach, Systems and Procedures, Computing Technology Center.



**EARLY TRAINING**—Miss Denver took time out from her busy schedule to have twin colts February 28. Admiring the young horses is Teresa Grubb, daughter of James P. Grubb, Y-12's Chemical Services. Miss Denver belongs to Jeff Jolly, son of Jack Jolly, in Y-12's Process Maintenance. Jeff will ride Miss Denver in Saturday's horse show.

**R. L. Pyle Promoted In Computing Center**



Robert L. Pyle recently completed the Career Development program at ORGDP and was promoted to a technical assistant as applications programmer in the Information Systems Department, Computing Technology Center.

Pyle has been here since September, 1968. A native of Knoxville, he attended schools there and was graduated from The University of Tennessee in August, 1969, with a B.S. degree in nuclear engineering.

Pyle's outside interests include tennis, golf and guitar playing.

**Computer-Center Managers Attend May Conference**

Nearly 100 computer-center managers from the U. S. Atomic Energy Commission, Union Carbide, and other AEC contractors will attend a special meeting May 4 and 5 in Gatlinburg.

All are members of the "Atomic Energy Systems, Operations, and Programming Association" (AESOP), a group of specialists in data processing from AEC headquarters, field offices, and contractors.

Area speakers participating in the two-day program are Charles A. Allen, manager of the Computing Technology Center, Union Carbide Nuclear Division; Roger F. Hibbs, president, Union Carbide Nuclear Division; S. R. Sapirie, manager of the AEC's Oak Ridge Operations; and Robert Davis, assistant football coach at The University of Tennessee.

Allen and Sapirie will give opening and welcoming remarks, respectively. Hibbs will be the first speaker at the opening session Tuesday morning (May 4). Davis' topic will be "Using the Computer in Football Scouting." He will speak at the luncheon session Tuesday.

Other subjects to be covered include the study of computer pro-

**Jaycees Plan May 'Walk for Mankind'**

Some 1,000 volunteers are expected to participate in a 20-mile "Walk for Mankind" Saturday, May 8, with the walkers earning special dollar-per-mile donations from area merchants.

The money will go to Project Concern, an international non-profit, medical-service organization which helps those in need of health care throughout the world. A local clinic is supported in Deerlodge, Tenn., only 45 miles from Oak Ridge.

The event, sponsored by the Oak Ridge Jaycees, is one of many that have been held throughout the United States. Some 34,000 volunteers participated in 58 walks in 1970, walking some 28 million miles — or around the world 1,100 times — and raising more than \$500,000 for those needing medical help.

The Oak Ridge Jaycees, under local chairman Dr. David Stanley, encourage all local merchants and individuals to help out. For further information, contact any Jaycee, write P. O. Box 448, Oak Ridge, Tenn., 37830, or call 483-9492. Check points will be established at each mile along the route for those who cannot walk the entire route, but wish to help by walking as far as they are able.

Project Concern was founded in 1962 by Dr. James Turpin, a Southern California doctor. Today, the project supports five medical clinics in Hong Kong, two hospitals in the Central Highlands of Vietnam, a maternity and pediatric hospital in Tijuana, Mex., clinics in Bisti, N. M., and North Central Tennessee, and a drug abuse education program. The work of these field programs is financed largely by "Walks for Mankind."

**Atomic City Sportsmen's Spring Dance Is April 24**

The Atomic City Sportsmen are sponsoring a Spring dance Saturday, April 24, at the Oak Ridge Civic Center.

Dancing, to the melodies (?) of the "Getto Children" will begin at 10 p.m. and extend to 2 a.m. Admission, at the door, is \$2.50 per stag, \$4 per couple.

Advance tickets may be purchased from any member of Sportsmen.

**Original Ballets Offered In April 30 Performance**

The Ballet-Suzanne is presenting a concert of four completely new works, April 30, May 1 and 2 at the Robertsville Junior High School. To be included are "A Gothic Tale," a 15th century tale of two lovers; and two works "Pas Classique" and "Les Chats," as well as 12 short dances based on the Zodiac. "The Zodiac" is a modern, jazz, rock ballet.

Curtain time for evening performances are 8 p.m. A matinee on May 2 will begin at 2 p.m.

curement problems; organizing and managing computer systems; security; and communications.

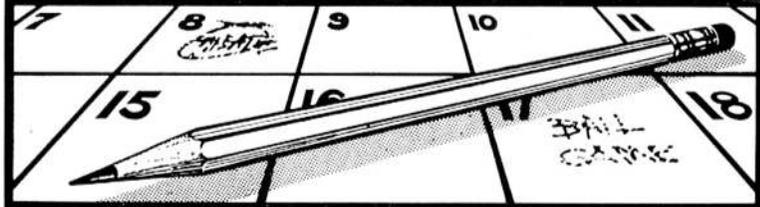
Principal officers and organizers of the meeting are R. D. Duncan, USAEC, Las Vegas, Nev., chairman; W. C. Westlake, USAEC, Washington, D. C., secretary; A. L. Buffer, The Bendix Corporation, Kansas City, Mo.; and Allen, CTC, and H. P. Carter, Oak Ridge National Laboratory, Union Carbide Nuclear Division, as co-hosts.

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**CALENDAR OF EVENTS**



**TECHNICAL**  
**April 23**

ORNL-NSF Environmental Program Seminar. "Progress on an Environmentally Oriented Model for the Demand for Electricity." T. J. Tyrell and L. D. Chapman. Building 3047, Isotopes Auditorium, 1:30 p.m.

Physics Division Seminar. "Some Applications and Properties of One and Two Dimensional Position Sensitive Proportional Counters." M. K. Kopp, Instrument and Controls Division, Building 4500N, East Auditorium, 3 p.m.

**April 26-28**

ORNL third annual information meeting: Studies in Applied Solid Mechanics. Oak Ridge Playhouse.

**April 28**

Nuclear Power Seminar. "Nuclear Accidents — Probability and Consequences." E. P. Epler and M. H. Fontana. Central Auditorium, 4500N Building, 3 p.m.

Cancer Research Seminar. "The Effects of the hr gene on Leukemia." David D. Myers, The Jackson Laboratory. First Floor Tower Annex, Biology's Conference Room, 12:15 p.m.

**May 4**

ORNL-NSF Environmental Program, Ecological Sciences Division, and AEC Environmental Quality Study Program Seminar. "Thermal Discharges: Why a Legal Problem." W. A. Thomas, East Auditorium, Building 4500N, 10 a.m.

**May 12**

Nuclear Power Seminar: "Nuclear Power Plants — Decreasing the Probability of an Accident." W. B. Cottrell. Central Auditorium, 4500N Building, 3 p.m.

**COMMUNITY**  
**April 23**

Oak Ridge Playhouse presents "A View from the Bridge," a drama by Arthur Miller. Oak Ridge Playhouse, 8:20 p.m. Other performances April 24 and 30; May 1, 7, and 8. Admission: \$2.50; Fridays only AARP members \$2; students \$1.25.

**April 24**

East Tennessee Riding Club Horse Show. 24th annual show. Club Stables, Tuskegee Ave., Oak Ridge. 10 a.m. Admission: Adults: \$1; Students: \$.50; Children under six: free.

Spring Dance. Sponsored by the Atomic City Sportsmen, with the "Getto Children." 10 p.m.-2 p.m. Oak Ridge Civic Center. Donation: \$2.50 stag, \$4 couples.

**April 30**

Ballet - Suzanne. "A Gothic Tale" plus 12 short dances based on the Zodiac. Other performances April 30, May 1, 8 p.m. Matinee, May 2, 2 p.m. Robertsville Junior High School.

**EVERY 12 MINUTES**

Every 12 minutes a home in the United States is destroyed or damaged by fire starting in rubbish. Don't give fire a place to start in your house!



**NEW MEMBER OF YEAR** — Bettye Burns, right, was named Member of the Year by the Oak Ridge Chapter of the National Secretaries Association. The annual banquet was held recently at the Holiday Inn, Oak Ridge. Mrs. Burns receives her trophy from Elizabeth Harris, Y-12's Special Services. The new secretary of the year is in Oak Ridge National Laboratory's Safety and Radiation Control. (Photo: Ruth Carey, AEC.)