

Local Groups To Observe Rite Of Engineers' Week

The fifteenth annual observance of National Engineers week under the sponsorship of the National Society of Professional Engineers is observed this week February 21-27. The theme for 1965 is "Engineering for Human Needs."

The observance has received a tribute from President Johnson, proclamations by state governors and municipal officers. February 18, Mayor R. A. McNees signed a proclamation for Oak Ridge observance of National Engineering Week.

Arrangements for Oak Ridge Engineers Week activities have been made by local engineering technical societies with direction by the Technical Societies Joint Council. Contributing societies include American Institute of Chemical Engineers, American Society of Mechanical Engineers, American Society of Tool and Manufacturing Engineers, American Society of Metals, Instrument Society of America, American Welding Society and Institute of Electrical and Electronic Engineers.

One of the features of the celebration will be a banquet at the Senators Club (C'est Bon) tomorrow, Thursday, February 25 for the Knoxville, Oak Ridge and Alcoa-Maryville areas. Tickets for the banquet are being sold by representatives of local Engineering Societies, with the public invited to attend.

Meanwhile, two Y-12ers receive special recognition during the week. See story below.

Two Electrical Men Getting State Engineering Status



Charles L. Moulton



Edward W. Pipes

Two Y-12ers celebrate Engineers' Week with special significance. Edward W. Pipes has been notified that he has been certified as a Professional Engineer . . . and Charles L. Moulton took his oral examinations yesterday to certify also. Both men are in the Electrical Department.

Before the State Board this week for the final lap in certifying as a Professional Engineer in Tennessee is Charles L. Moulton. Moulton, a native of Union County, first came to Y-12 September 6, 1960. After two years, he returned to school (the University of Tennessee). In 1960 he had received a BS degree in Electrical Engineering. In August, 1963, he received his MS degree.

Moulton served in the United States Navy from 1952 until 1955. He is married to the former Pauline McCoy. They have three children, Tara Ann, Kimberly Gay, and David Lynn, at home at 5728 Oak Lane, Knoxville.

Edward W. Pipes, also in Electrical, was notified recently that the State Board had already certified him.

Another mountain native, Pipes was born in Murphy, North Carolina. Before coming to Y-12 he had worked for the Tennessee

Valley Authority (on Hiwassee Dam and Ft. Loudon) from 1938 until 1943. In 1946 he came to Oak Ridge Gaseous Diffusion Plant and left in 1948 to do radio engineering work in Morristown. During 1949 and 1950, he was chief radio technician at radio stations in Middlesboro, Kentucky and Lenoir City.

Pipes lives at Route 2, Meadow Run Lane, Knoxville. He is married to the former Jessie L. Anthony. They have a daughter Mary Emily, an illustrator in ORNL's Biology Division, and three sons, William, John and Jeffery.

Pipes served in the U. S. Army during World War II, from 1943 until 1946. He attended Mars Hill College, Mars Hill, North Carolina and has done extensive night study at the UT Evening School.

Princeton's Green Leads Physics Seminar Friday

A. M. Green, Princeton University's Institute for Advanced Study, will speak on "The Oxygen Isotopes" at this week's Physics Division Seminar.

The seminar is set for Friday, February 26, at 3:15 p.m., in 4500's East Auditorium.

Columbium Is Ideal Coin Metal For U.S.

Silver Shortage Could Be Solved

The use of columbium to replace silver as the base metal for dimes, quarters, and half-dollars was proposed last week by Robert M. Briney, president of the Stellite Division of Union Carbide Corporation.

Columbium is a metallic element that currently is used as an alloying metal in high temperature applications such as gas turbines, jet engines, and in nuclear reactor components.

"Columbium is as plentiful as nickel and it meets the requirements for a coinage material," Briney stated. "It has an attractive, silvery appearance. Coins made of columbium ring true and take a good impression. It also has intrinsic value, an important qualification for coins."

Hard, Tough Metal

"The metal is harder and tougher than both silver and nickel," he added. "That's important because the life of coins should be increased."

Increased demand for silver — particularly in photography, electronics, dentistry, and in the manufacture of jewelry and silverware — has taxed silver mining sources beyond capacity. The nation's stockpile of silver is being depleted rapidly.

Treasury Department officials are concerned with the silver dilemma. Every United States dime, quarter, and half dollar is 90 per cent silver. Suggested solutions have ranged from lowering the percentage of silver to the use of various substitute metals.

Production Estimate

"There are now at least five highly competent domestic firms that produce columbium," the Stellite Division official stated. "We estimate that within five years, 10 to 15 million pounds of metal could be produced annually."

He pointed out that the metal would be hard to counterfeit. The metal requires special high-vacuum equipment to melt, and melts at a temperature nearly 3,000 degrees higher than silver and 2,000 degrees higher than nickel.

A booklet prepared by Union Carbide describing the advantages of columbium has been distributed to all members of Congress, to officials in the Treasury Department, and to banking and financial interests.



A NUMBER OF DEVICES to gauge the intensity of underground detonations—caused by conventional high explosives or nuclear devices—have been fabricated in Y-12. O. K. Sergeant, director of the gauge fabrication, examines individual components of a gauge.

Underground Detonation Gauges Are Fabricated By Y-12 Plant

Gauges to be used in measuring the intensity of underground detonations have been fabricated at Y-12.

Some 300 of these gauges were shipped to the Sandia Corporation, Albuquerque, New Mexico, to be used at various test sites.

Sandia Corporation will use the gauges in recording surface or under ground motion from deto-

nations of conventional high explosives and nuclear devices conducted in connection with various programs. Sandia will use them in some studies for the Atomic Energy Commission's Plowshare Program, which involves the use of nuclear explosives for peaceful applications. They will also be used in other projects, including the development of techniques for improving the capability of detecting and identifying underground nuclear explosions.

(Project Plowshare is named from the Song of Solomon quotation: "They shall beat their swords into plowshares, and their spears into pruning-hooks; nation shall not lift up sword against nation, neither shall they learn war any more.")

The cylindrical gauges — approximately three inches tall and one and one-half inches in inner diameter — act similar to seismographs in measuring horizontal or vertical earth motion from shock waves.

Each gauge consists of a brass shell having a rectangular pendulum suspended inside on ball bearings and filled with damping oil. The pendulum — either of brass or aluminum — has an iron

armature bonded to it, which, with movement, increases or decreases induced fields at the sensor end.

When an underground blast occurs, the shock causes relative motion between the case and the pendulum. Its movement disturbs the fields, causing changes in current which are proportional to the earth motions. These changes are relayed to a collecting point and electronically displayed on a graph chart.

We were selected to perform the fabrication of the gauges because of our experience in instrumentation and the unique inspection facilities required for the operation.

Thermonuclear Division Sets Special Seminar

The Thermonuclear Division will present Dr. John L. Johnson, Plasma Physics Laboratory, in a special seminar this week. He will speak on "Princeton University — Negative 'V' Stellerators.

The seminar is set for today, February 24, at 9 a.m. in the TD Conference Room, Building 9201-2.

SAFETY SCOREBOARD

The Y-12 Plant Has Operated 82 Days Or 2,449,000 Man-Hours (Unofficial Estimate) Without A Disabling Injury Through February 21 Phone 7755 For Daily Report On Accident-Free Hours

The Bulletin

Published Weekly For The
Y-12 Employees Of
UNION CARBIDE
CORPORATION



NUCLEAR DIVISION

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Katy Kutkost
SEZ:

CHALK UP ONE FOR PIERRE!

Dick French, Dimensional Inspection, affectionately dubbed Pierre by Bill Crow because he was lucky enough to work close to Bill, has scored — he's Number One — the first to send in a cost savings green sheet for 1965.

However, like a diamond in the rough, it was not instantly recognizable. Cost sheets for 1964 report were due January 8. On the 12th, in comes a green sheet from Pierre — "Discontinued an IBM list of Inspection Form Revisions—\$5,000/yr."

After patiently listening to the supposedly subtle "How come you're late" static, Pierre modestly replied, "This is for next year's report — after all, anybody coming up with as many winners as I do should send them in immediately before they're lost forever."

This couldn't have been better put. It even applies to those who come up with more than one item a year.

Taming Of Shrew Is Playhouse Opus

The Oak Ridge Playhouse will hold auditions Sunday, February 28, at 2 p.m. for the final production of the current season. Shakespeare's rollicking "Taming of the Shrew," requires 15 men and six women from 20 on up. The roles range from the leading parts of Kate and Petruchio through small walk-ons. No previous dramatic experience is required and everyone in the area is invited to attend the reading of those "who wooed in haste and means to wed at leisure."

Rehearsals will commence next month and the play will open April 30 for a minimum of seven performances. Those interested who cannot attend Sunday's try-outs should contact Director Paul Ebert. Backstage crews are needed for the Shakespearean comedy, also.

ALL IS VANITY

High heels were originated by men! The pint-sized Louis XIV of France started the craze. His favorite pair of elevators was flaming red.



THE JANUARY 28 MEETING of Y-12's Credit Union saw the above officers begin 1965 terms for the credit organization. Above are the current board of director members . . . Bill Davis, secretary; P. L. Patrick, Bill Hackett, Lorena Causey, treasurer-manager; Tom Stephens, president; W. H. Dobson, and C. V. Ketron.



WORTHY ADVISOR Martha Robertson, daughter of J. D. Robertson, Assembly Operations, is seen at her installation. She was made worthy advisor in the Order of the Rainbow recently in Assembly 78, at Kingston. Martha is a freshman at Roane County High School.

QUIZ ON QUIZ

In the "Christmas Quiz" run in the Christmas issue of The Bulletin . . . someone has come up with this one. Who said there were three Wise Men? The Scriptures mention no number. It does allude to the three gifts . . . hence tradition has numbered the Magi at three.

New Officials Are Named By Olefins

Two new officials have been named in the Olefins Division of Union Carbide Corporation. Rolf V. Wallin has been named vice president — engineering and W. F. Kennan vice president and business area general manager. The announcement is made by James C. Malone, division president.

Wallin, who is also vice president — engineering of Union Carbide's Chemicals Division, joined Union Carbide in 1933 in the engineering department of the Chemicals Division, South Charleston, West Virginia. He rose to the position of associate director of engineering in 1953 and was appointed director of engineering in 1956. He has been vice president — engineering of the Chemicals Division since 1959, and will continue in this position. He is a graduate of Massachusetts Institute of Technology, with a BS degree and MS degree in chemical engineering.

Kennan has been with Union Carbide since 1936 when he joined the Chemicals Division staff at South Charleston, as an engineer. He held a number of positions for the division there, becoming a supervisor in the engineering department in 1954. In 1958, he joined the Olefins Division, subsequently moving to the New York office as manager of planning. Since 1964, he has been general manager of a business area for the division. He received a BS, ME, and MS degree from Princeton University.

Education Groups Share AEC Program

The Atomic Energy Commission's Oak Ridge Operations currently has about 260 contracts principally with educational institutions for conducting research and development related to nuclear energy programs.

S. R. Sapirie, Manager of ORO, said work under the contracts involves costs of more than \$15,600,000. AEC costs total about \$9,960,000, with the 75 institutions supporting the remainder.

The research under the contracts is primarily of a fundamental nature and is in addition to more extensive AEC research programs carried out by the Oak Ridge National Laboratory, Oak



Y-12 CREDIT UNION'S CREDIT COMMITTEE for 1965 includes, from left, Lorena Causey, Fred Wilkinson, and Mary Frances Bailey.



SUPERVISORY COMMITTEE for the Credit Union includes J. A. Whitten, C. V. Ketron, and H. R. Gwinn.

Dandl To Speak Friday On 'Electron-Cyclotron'

Thermonuclear Division's regular weekly seminar will be conducted by R. A. Dandl, who will speak on "Electron-Cyclotron Heating."

The seminar will be held tomorrow, Thursday, February 25, in the TD Conference Room, at 9 a.m., Building 9201-2.

Ridge Institute of Nuclear Studies, Agricultural Research Laboratory, and the Puerto Rico Nuclear Center.

Correction

Due to a mix-up in photo-engravings, the wrong picture was run in last week's Bulletin of S. R. Sapirie, manager, Oak Ridge Operations of the Atomic Energy Commission.

The photo identified as Mr. Sapirie was Senator J. O. Pastore, Rhode Island, who visited the Oak Ridge operations in 1963. Senator Pastore, Joint House-Senate AEC Chairman, key-noted the Democratic National Convention last year.

The Bulletin sincerely regrets the error.



NEW OFFICERS in the Knoxville-Oak Ridge Section of the American Institute of Chemical Engineers are seen at their recent installation. Seated, from left, are R. W. Horton, director; C. W. Barkow, chairman; and J. W. Hill Jr., chairman-elect. Standing are L. F. Parsly Jr., treasurer; Lou F. Kovach, secretary; J. T. Roberts and R. P. Milford, both directors. Not pictured is J. J. Perona, also named a director. Kovach is in Y-12's General Mechanical Engineering.

ORNL 68338



CHEESE VENDORS, selling their wares through the ancient streets of Amsterdam, look as if they might have stepped out of the 12th Century. Amsterdam is one of the colorful cities slated for the Scandinavia-1965 Tour available to Carbiders this summer.

Tour Of Northwestern Europe Is Planned For Carbide Tourists

Scandinavia-1965 is the holiday word for Carbide employees and their families in this vicinity. The Recreation Departments, in cooperation with the World Travel Service, are planning a special tour July 17 through August 1 or Norway, Sweden, Denmark, Germany and Holland. The upper European tour is a package deal for any employee or member of his family. The total cost is \$598 for the 16-day vacation trip.

Included in the package price is transportation (chartered Constellation flight from Knoxville to Amsterdam and return), hotel accommodations and all meals, with the exception of three lunches. Also included are sight-seeing tours of such places as Hamlet's castle at Kronberg, museums, palaces, and other places of interest in the section.

The itinerary is as follows: leave Knoxville early in the afternoon, Saturday, July 17. Arrive Amsterdam morning of 18; return to Knoxville in late afternoon of Sunday, August 1.

Major cities on the schedule include Amsterdam, Hamburg, Copenhagen, Stockholm, Oslo and Bremen. Sightseeing tours of the cities and points of interest enroute are all planned. Travel through Holland and Germany and part of the Scandinavian Countries will be by motorbus.

A \$100 deposit is required with the application, which is due on application for each tour member . . . and the balance is due six weeks before departure date (about June 4).

The Recreation Office has application forms for this tour and another one of the Hawaiian Island later on in the year (September 11 to 25).

Details on the Pacific tour will be forthcoming in the Bulletin.

The packaged tour is being organized for all three Carbide plants, and a minimum of 113 passengers is needed for the Scandinavian trip.

Verna Peckman Is Mixed Alleys Star

The Goofers kept a tight grip on Mixed Bowling last week by clutching four more points from the Alley Oops. The Chumps also took four from the Turtles. Taking three, the Blue Angels moved up, overcoming the Bingos. The Twisters and Alley Cats shared two points each.

Verna Peckman, Blue Angels, set the alleys afire for the women. She took single games of 210 scratch, 261 handicap. Her series of 512 scratch, 665 handicap were season highs. George Cantrell, Turtles, rolled a 186 scratch

Hi Lifers Move Up In C League

The Big Five kept a slim lead in the C Bowling League last week by downing the Badgers for three points. Moving up, the Hi-Lifers out-manuevered the Five Roses for the only four-point win of the day. Other three point wins

went to the Strikers over the Sunflowers, the Lucky Strikes over the Shud-A-Beens, the Hookers over the Rounders, and the Rodders over the Busters.

Despite the loss of three points by the Rounders, Arnold Tiller set the alleys afire, taking a series scratch score of 618! His singles were high for the night also, 244 scratch, 260 handicap . . . and his handicap series came out at 666.

The Rounders took high singles in scratch counting with 913. The Hi Lifers handicap tallies were high, singles of 1036, and series of 3073. The Strikers struck high series in scratch with 2575.

League standings follow:

Team	W	L
Big Five	20	8
Hi Lifers	19	9
Strikers	16	12
Rounders	15	13
Lucky Strikes	15	13
Five Roses	14	14
Shud-A-Beens	14	14
Hookers	13	15
Par Busters	12	16
Sunflowers	11	17
Rodders	11	17
Badgers	8	20

game. Jim Young, Blue Angels, took a 219 handicap single. Bill Sise, subbing on the Goofers, took a 521, 590 series.

The Blue Angels took single highs, posting scratch scores of 654, and handicap points of 846. The Goofers posted series highs, with 1871 scratch, 2294 handicap totals.

League standings follow:

Team	W	L
Goofers	26	6
Alley Cats	18	14
Blue Angels	17	15
Turtles	16	16
Chumps	15	17
Alley Oops	14	18
Twisters	13	19
Bingos	9	23

Y-12 Teams Lose More In Basketball

ORINS Team Scores Near Upset Game

The Basketball League got in three licks last week . . . making up some lost time.

Monday's action saw the Raiders defeat their fellow Y-12ers, the Eagles, 33 to 29. Jim Batch led the victors with 11 through the hoop . . . and John Pridgeon scored 12 for the losers.

The Fearless Five defeated the Fuds also Monday in a lop-sided score, 53 to 30. Analytical Chemistry defeated ORINS to the tune of 46 to 37.

The Fearless Five returned to the backboards Tuesday, downing Y-12's Raiders 61 to 33. Larry Finch scored 20 big points . . . Cloy Goetsch came through with 19. Dave Olson scored 11 for the losing squad. The Fearless team lost big George Luttrell at the very start of the game by an injury. The Raiders then turned and lost their big gun, Chitwood.

Raiders Lose Another

ORINS then defeated the Raiders 38 to 33. Joe Mason led Y-12's hopes, scoring 12. Tom Smith tore 13 big points for the winning team.

Biology downed Y-12's Eagles 50 to 30 in Tuesday's final foray. The Eagles ran out of steam after the first half. The ballgame became ragged in the waning moments, with Biology keeping control of the boards, and scoring at will.

In double overtime Metals and Ceramics defeated ORINS 44 to 42 in a crackerjack of a game . . . one of the best of the season. John Murphy scored in the sudden-death second overtime giving M&C a close victory.

Fuds Go Down

Wednesday's action pitted the Metals and Ceramics outfit against the Fuds . . . M&C winning handily, 55 to 37. Big Jim Carter was back in the driver's seat, and took 22 points.

Another close one finished the action for the week as Analytical Chemistry bested the Fearless Five 36 to 31. Without Ray Cooper and George Luttrell the Fearless Five burned cold . . . facing a determined and upset-minded AC ball team.

League standings follow:

Team	W	L
Metals & Ceramics	5	0
Analytical Chemistry	4	0
Biology	3	1
Fearless Five	3	2
Fuds	2	3
All Stars, K-25	2	3
Raiders, Y-12	1	3
ORINS	1	3
Eagles, Y-12	0	5

Rippers Stretch Lead In Classic

The Rippers lengthened their lead in Y-12's Classic Bowling league last week. They routed the Rebels for four points. Also taking four, the Tigers fought their way past the Cubs, the All Stars smothered the Swingsters, and the Bumpers took the Wasps. The Playboys rolled past the Screwballs, and the Wolves took the Smelters. The only three-point win of the week went to the Markers over the Splinters. The Eightballs and Has Beens shared two.

Dave Smith, Playboys, played the best singles, taking a scratch game of 234, pushed to a 269 handicap tally. Jay Holzknecht, Rippers, had a hot series of 629 scratch, 692 handicap.

The Playboys swept the boards,



BUSH BOWLERS include two sterling teams, seen above. In the top photograph are the Beginners, from left, Jack Gresham, Ed Cothron, Ralph Williams and Lou Fitzgerald. Seated is Jerry Davis. In the lower pix are the Outcasts, Bob Bass, W. T. Shelton, Joe Sherrod, Joe Johnson, Van Barnes, and Al Strickland. The Outcasts and Beginners are neck-and-neck in fourth and fifth places in league standings.

Rollmasters Inch Up On Beavers In Tight Bush Alley Competition

The Rollmasters rolled to within one-half point of the crest of the Bush League for Y-12 bowlers last week. They out-lasted the Outcasts by three points. The league-leaders, the Beavers tied with the Teds for two points. Also taking three was the Spec Five outfit over the Hi Balls. The Seven Sixties and Beginners also shared two points.

Recreation



Saturday, February 27
SKEET LEAGUE: 1 p.m., Oak Ridge Sportsmen's Association firing range.

Monday, March 1
BOWLING: C League, 5:45 p.m.; Bush League, 8 p.m., Ark Lanes.

BASKETBALL: 6:30 p.m., Oak Ridge High School Gym.

Tuesday, March 2
PHYSICAL FITNESS: 7:30 p.m., Oak Ridge High School Gym.

Wednesday, March 3
BOWLING: E League, 10 a.m.; Mixed League, 8 p.m., Ark Lanes.

BASKETBALL: 6:30 p.m., Oak Ridge High School Gym.

PISTOL LEAGUE: 7:30 p.m., Anderson County Gun Club, Clinton.

Thursday, March 4
BOWLING: Classic League, 5:45 p.m., Ark Lanes.

VOLLEYBALL: League Play, 7 p.m., Oak Ridge High School Gym.

singles of 946, 1070 . . . series of 2684, and 3056.

Team	W	L
Rippers	24	5
Has Beens	19	9
Tigers	19	9
All Stars	19	9
Bumpers	18	10
Eightballs	17½	10½
Swingsters	15	13
Playboys	15	13
Cubs	13	15
Rebels	13	15
Wolves	12	16
Screwballs	11	17
Wasps	8½	19½
Markers	8	20
Splinters	7	21
Smelters	6	22

Jim Milligan, Spec Five, practically went all the way for individual honors. He and Charlie Myers, Rollmasters, tied for single scratch highs, each with a 217. W. D. Stinnett, Teds, had a 249 handicap singles. Milligan's series were high, 565 scratch, 649 handicap.

The Teds took singles scratch honors, posting an 855. The Rollmasters were better on handicap scores, however, with a 1015 single count. The 'Masters also took series highs of 2413 and 2898.

League standings follow:

Team	W	L
Beavers	21½	10½
Rollmasters	21	11
Spec Five	19	13
Outcasts	18	14
Beginners	15	17
Hi Balls	13½	18½
Seven Sixties	10	22
Teds	10	22

Alley Bees Ease Up In E League

The league leading Hot Shots shared two points in the E Bowling League last week. Splitting with them were the Cannonballs. The Foursquares took three from the Pintwisters and the Alley Bees four by drawing a bye.

Robert Horne, Foursquares, took high scratch honors . . . with singles of 206 and series of 518. D. R. Lawrence, Hot Shots, had a 228 handicap singles; and R. Ellison, Cannon Balls, rolled a 611 handicap series.

The Hot Shots dominated singles with a 678 scratch; while the Foursquares posted an 829 handicap single. The Shots returned to the boards in series with 1919 and 2318.

League standings follow:

Team	W	L
Hot Shots	25	15
Alley Bees	20	16
Pintwisters	20	20
Foursquares	18	18
Cannonballs	13	23

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Proclamation

"The position of the United States as the foremost industrial power rests, in considerable measure, on technological leadership. Our engineering prowess is second to none—and we must keep it that way.

"In the past, the American engineer has contributed much to the preservation of national well-being and security. New horizons beckon to us beneath the sea, in space, and in the interior of the earth. The greatest of the challenges presented will be related to improving the life of man. Better housing, modernization of transportation, freedom from the hazards of air and water pollution, greater control over the destructive forces of nature, and the establishment of a new and attractive urban environment must all be realized as we advance toward the Great Society.

"During National Engineers' Week, I ask the members of this profession to assist in meeting challenges by dedicating themselves to an even more active interest in our young people who will bear the engineering responsibilities of the future. Many high school students and particularly the children of disadvantaged families are unaware of engineering career opportunities and often fail to obtain a sound preparation for college study. The engineering societies and their membership can help to remedy this situation by providing guidance and disseminating information to students, parents, and school counselors. By thus nurturing technical talent in America's youth, you will be contributing significantly to the building of a better society."

Lyndon B. Johnson
The White House
Washington

Junior Gun Club Plans New Course

The Anderson County Junior Gun Club is clearing the decks for the Spring gun safety and marksmanship training course. It will be held at the club's indoor rifle range beginning Friday, March 5. The course consists of four two-hour sessions and includes all phases of the Hunter Safety Program as well as the Home Firearms Safety program. Y-12ers are invited to enroll their boys and girls (ages 11 through 18) in this popular course of instructions. The right to keep and bear arms is one of our Constitutional privileges and is an American heritage to be guarded jealously. Our youngsters, properly trained in the use of firearms now, are the safety conscious and responsible sportsmen and citizens of tomorrow.

The course is registered with the National Rifle Association and is conducted by certified rifle instructors.

For full information contact Bert Searles, plant phone 3-5265, home phone Clinton 457-2644, or Dave De Walt, plant phone 3-7705, home phone Clinton 457-2717.



Ride wanted or will join car pool from 103 Pikeville Lane, Oak Ridge, to West Portal, straight day. L. B. Gillis, plant phone 3-5086, home phone Oak Ridge 483-7073.

Ride wanted from Norwood Section, Knoxville to East Portal, straight day. F. D. Bradburn, plant phone 3-5095, home phone Knoxville 689-3436.



The end of February and beginning of March find more Y-12ers celebrating important anniversaries with Union Carbide Corporation. Congratulations.

20 YEARS

Carl W. Hawkins, 9212 Shops, February 24.

15 YEARS

Charles M. McCarley, General Can Fabrication Shop, February 26.

John P. Raymer Jr., Buildings, Grounds and Maintenance Shops, February 26.

Lloyd I. Orr, General Machine Shop, March 2.

10 YEARS

Frank E. Williams, Research Services, February 23.

Fred N. McLain, Casting Department, February 24.

Clarence E. Forester, General Machine Shop, February 25.

James H. Marcum, Assembly Operations, February 25.

After All, Virtue Is Its Only Reward

Frankie's father was getting ready for work, as the child watched silently . . . eyeing the money to the dresser.

"Son, I want you to be a good boy while Daddy's at work."

"I will for a dime," Frankie replied, still eyeing the change.

"Son, you can not be a child of mine unless you're good for nothing."

APOLLO SPEED

The average speed of the National Aeronautics and Space Administration's Apollo spacecraft will be about 34,400 miles an hour during its flight to the moon.



Y-12'S EMERGENCY SQUAD, serving the Thermonuclear Division, are seen in training. Standing from left are W. W. Wright, S. M. DeCamp, E. W. Means, H. C. Hay, E. R. Wells, V. O. Messenger and B. S. Turner. Kneeling are T. F. Rayburn, M. W. McGuffin and J. F. Kennedy.

Y-12 Teams Take Volleyball Wins

Y-12's Eagles opened the second half of Volleyball play last week with a roar. They took all four games from the Mix-Ups, 15-5, 15-9, 15-2 and 15-7. At the same time on Court Two the Old Men and K-25 Instruments shared two games. The Men winning 15-13, 15-11; while K-25 won the last two 15-8, 15-10.

Y-12's Yanks lost three to the Mix-Ups (a new team from K-25) 15-12, 15-6, 16-14. The Yanks took game number three 15-9. The Scrubs rallied to win three from the Vaults, 17-15, 15-9, and 15-7. The Vaults took game three 15-11.

Y-12's Beavers easily won four from the Bums 15-0, 15-2, 15-2, and 16-5. The Set-Ups (who won the first half) won four from ORSORT, 15-4, 15-8, 15-8 and 15-7.

Team	W	L
Set-Ups	4	0
Beavers, Y-12	4	0
Eagles, Y-12	4	0
Scrubs	3	1
Old Men	2	2
K-25 Instruments	2	2
Mix-Ups, K-25	3	3
Yanks, Y-12	1	3
Vaults	1	3
ORSORT	0	4

'Every Age Has Its New Horizons'

"Every age has its new horizons, its undiscovered shores, and its new frontiers. And each new age produces its own breed of fearless explorers. Though their journeys have differed in nature, men such as Galileo, Newton, Einstein, Fermi, Columbus, Peary, Piccard, Hillary and Glenn all carried with them something of the spirit of Leif Erikson and the men of the long-ship. Today the future offers new and greater challenges. The horizons are wider, the distances farther. But these yet undiscovered shores will be discovered. They will be discovered and explored, not only because they are there, but because whatever exists and is unknown is a true challenge to the mind and body of man." Dr. Glen T. Seaborg, Chairman, U. S. Atomic Energy Commission, upon receiving the Leif Erickson Award for 1964.

Thermonuclear Emergency Squad Sets High Example For Entire Plant

The versatility of the Emergency Squad in the Thermonuclear Division in Y-12 has set an enviable record. Their preparedness and readiness to react in an emergency have not come about by accident. The well-planned program is second to none.

H. C. Hay is conducting the program which shows high interest from all members of the squad.

The Squad is unique in establishing new techniques and methods. For instance, they have incorporated the bos'n chair into their rescue and emergency planning. They incorporated the closed heart massage treatment in the regularly scheduled training program . . . one of the first groups to do this.

The enviable record established by the group followed a period in which a high incidence of serious accidents prevailed.

With no let-up in interest of the programs on the part of squad personnel, the attack on problems is consistent. In other words, the program is not of the 'hot and cold' nature.

Spirited discussions take place during the group meetings. All manners of possible incidents are discussed, and necessary action to avoid catastrophe is vividly illustrated.

The squad, contributing to Thermonuclear's safety and well being, is to be congratulated on their interest and enthusiasm. Their example is certainly one to imitate.

Members of the squad include T. F. Rayburn, M. W. McGuffin, J. F. Kennedy, E. R. Wells, V. O. Messenger, B. S. Turner, E. W. Means, S. M. DeCamp, and W. W. Wright.

UCC's Carbon To Aid In Stadium Fresh Air

The world's first air-conditioned sports stadium will be freshened with 13 tons of Union Carbide material. The Domed Stadium at Houston, home of the Astros and the football team, the Oilers, will purify recirculating air by passing it over 13 tons of activated carbon supplied by the Carbon Products Division.

Lab Exhibits Seen At Atomic Museum

A colorful, animated exhibit, prepared by Oak Ridge National Laboratory to explain a special method of preparing nuclear fuels is on display at the American Museum of Atomic Energy, Oak Ridge.

The ORNL-designed exhibit graphically depicts the steps required for preparing, by the Sol-Gel Process, thorium-based nuclear fuel elements suitable for both water-cooled and gas-cooled reactors. The process is shown in flowsheet form, with operating displays included to show how certain steps are accomplished.

The Sol-Gel exhibit was prepared by the Laboratory for the Office of Organization for International Conference, U. S. Atomic Energy Commission, for the Third United Nations Conference on the Peaceful Uses of Atomic Energy held in Geneva, Switzerland, August through September, 1964.

The exhibit was also shown at the 1946 Atom Fair, held under the sponsorship of the American Nuclear Society and the Atomic Industrial Forum in San Francisco, December 1-3.

The American Museum of Atomic Energy is open from 9 a.m. until 5 p.m. daily and from 12:30 to 6:30 on Sundays. There is no admission charge.

The museum—the first and only one of its kind in America—is operated for the AEC by the Oak Ridge Institute of Nuclear Studies. The exhibit, which opened at the museum January 15 will be there for two months.

Modern times — drug stores now are equipped to give you a stomach ache and a cure for it all at the same time!