

## Most Of Original Chicago Group Are Still Active In Nuclear Sciences; Four Are Dead

**Richard J. Fox, Eye Witness To Great Experiment, Works Near ORNL's Productive, Historic Reactor**

"And don't forget Gus, the carpenter. Without him, we doubt if Fermi and the scientists could have put the reactor together."

That was one of the firm recollections of some members of the "Fermi team" who met recently and talked about who did what on December 2, 1962. On that historic day, Enrico Fermi and his group

completed the world's first nuclear reactor and, for the first time, at 3:25 p.m., achieved a controlled release of the energy of fissioning atoms.

No reporters, cameras or tape recorders were present on this occasion, which has been called the "birth certificate of the atomic age." Building the reactor was a vital part of the huge and secret World War II project (Oak Ridge) to make a nuclear weapon.

There was only one woman present at the historic gathering, Leona Woods, a physicist. Today she is Mrs. Leona Woods Marshall, a professor of physics at New York University.

The carpenter? He is August C. Knuth, who gave his advice directly to Fermi and Walter Zinn, now with Combustion Engineering, Inc. Knuth had to estimate correctly the effect of the heavy reactor parts on the wood-supporting structure that kept the reactor level. He still lives in Chicago.

### Four Are Deceased

Four of the group are dead. Fermi, whose early work with neutrons in Italy laid the foundation for his successful reactor concept, died in Chicago in 1954. Dr. Arthur H. Compton died in California this year. His book, "Atomic Quest," is considered one of the best personal accounts of the bomb project. Louis A. Slotin died from radiation exposure in 1946 in one of the few fatal radiation accidents during the entire history of the atomic era. Wayne Arnold, a young physicist working on his PhD, died several years ago in an automobile accident.

Most of the remaining number of the original 41 witnessing the Chicago experiment are still in the nuclear business.

### ORNL's Fox A Witness

Richard J. Fox occupies an office in Oak Ridge National Laboratory only two blocks from the Graphite Reactor, the world's oldest reactor still in operation.

At precisely 5 a.m., November 3, 1943, the Graphite Reactor was "critical," less than a year after the first controlled criticality was induced in Chicago.

"I was standing right behind Fermi," Fox recalls, "thinking of that clothesline on the pulley." A piece of cotton clothesline over a pulley with two lead weights was the home-made control rod drive mechanism. "I was constantly afraid the clothesline would slip off the pulley," he remembers, "It really was a home-grown outfit."

Today Fox is engaged in work on semi-conductor radiation detectors. He now uses the Graphite Reactor for the irradiation of detector components. "For accurately controlled radiation dosage, this reactor is still preferred," he states.

### NO APPLE TODAY

Experts believe that without the use of chemical pesticides and fungicides the production of apples would be impossible. Less than five per cent of commercially usable fruits are produced where no chemicals are applied.



Richard J. Fox

## Model Of Fermi Reactor Goes Into Smithsonian

Many of the scientists who worked with the late Enrico Fermi at Chicago on the first controlled nuclear chain reaction visited President Kennedy last week at the White House. They displayed for the President an historic souvenir of the reactor which is to be given to the Smithsonian Institute for use in the Hall of Nuclear Energy in the new Smithsonian building. The plexiglas model has embedded in it a one-inch cube of uranium that was part of the original fuel. Built at Oak Ridge National Laboratory, the model is inscribed: "Fuel From World's First Nuclear Reactor, December 2, 1942, Stagg Field Stadium, Chicago, Ill."

## Chemical Patents Outnumber Others

Ever since the first United States patent was granted in 1790 to Samuel Hopkins, patents have provided the chemical industry's creativity with incentive. But modern chemical technology is so broad and diverse that development of a new product often requires bringing to bear a number of specialized scientific disciplines of the technical problems involved. Though the effort may involve a single product only, enough new technology may be generated to warrant issuance of a number of patents including those on the product itself and the process used to produce it.

Patent growth illustrates another aspect of chemical technology—its acceleration. Between the years 1910 and 1960, the number of chemical patents granted annually rose from 1,181 to estimated 10,200 for an increase of 764 per cent. In the same time span, patents of all other varieties issued increased 41 per cent.



**A STAR ATTRACTION** at the Children's Party, coming for Carbide Kids, is Chester 'Bobo' Barnett, shown with his famous miniature car and dog act. Bobo will be present for all the Kids' parties, to be held Saturday, December 22 at the Oak Ridge High School. A coupon is attached for parents.

## Dance, Kids' Parties To Herald Yuletide

**December 14 And 22 Are Important Dates**

The time is getting nigher and nigher for the big Christmas parties ahead . . . both for adults and children.

First on the calendar is Friday week, December 14, when the Y-12 Christmas Dance is set. The Oak Terrace, Oak Ridge, is the scene of the traditional Yule party. O. J. Bailey's orchestra, present for the last two plant-wide functions, will make another welcome appearance.

The dancing will commence at 9 p.m. and tables will go on the usual first-come, first-served basis.

Tickets for the big dance are only \$1.50 per head, or \$3 per couple. They will be available at the door prior to the dance, or may be obtained in advance from the Recreation Office.

A selection of door prizes will be announced in next week's Bulletin for the dance.

The next date circled on the fading calendar is Saturday, December 22. That's the day merriment breaks loose for Carbide chillun, that is, youngsters from one to 10 years of age inclusive. Parents may accompany their offsprings either singularly or in pairs. Applications for the Kids' Parties are already pouring in to the Recreation Office.

The jolly old fellow in red will make an appearance at the parties to add to the joy created by Chester "Bobo" Barnett, the lovable tramp. Colored cartoons, Christmas carols, and a surprise "stocking" will complete the picture for the Wonderland activities. And like in "Alice in Wonderland" there'll be a prize for everyone.

All Carbide children are welcomed at the event. The parent employee must, however, submit an application for tickets.

The hours of the parties are from 9 and 11 a.m., 1, 3 and 5 p.m. on Saturday only, December 22. First and second choices should appear on the applications . . . and the tickets will be issued on a first-come basis.

Applications for tickets should be mailed to the Recreation Office, Room 149, Building 9704-2 as soon as possible. The waiting list for tickets has already begun, and the backlog will not last long.

Tickets should be in Recreation's hands by December 18. No applications will be taken after that date. So don't disappoint that youngster . . . get that ticket application in now.

The Christmas parties will all begin at the appointed hours in the auditorium of the Oak Ridge High School.

An application blank appears on Page Four of this issue of The Bulletin.

## Reactors Turn On Salt Water

The possibility of producing fresh water from the sea economically by using heat from large nuclear reactors was announced recently by Oak Ridge National Laboratory.

Investigating an idea proposed by R. Philip Hammond, the Laboratory estimates that low-temperature heat from certain kinds of very large reactors might be produced for 10 to 20 cents per million BTU, considerably below the cost of heat from burning coal or oil in most parts of the world.

Initial calculations indicate that when such large reactors, producing in the range of 10 to 100 million kilowatts of heat, are used to evaporate sea water, fresh water may be produced at less than half the cost previously expected. Further studies aimed at substantiating these preliminary estimates are continuing under Hammond's direction.

Hammond began his work on this subject several years ago at Los Alamos Scientific Laboratory where he is Associate Reactor Division Leader. He is now on loan to ORNL to continue his work.

## Ladies Night Set For SNTD Meeting

The Oak Ridge Chapter of the Society for Non-Destructive Testing is having Ladies Night next Tuesday, December 11. Dinner is scheduled to get underway at 7 p.m. at the Oak Terrace, Oak Ridge. The business session begins shortly after dinner.

The emcee for the event will be Ed Bettis, development engineer in the Oak Ridge National Laboratory's Reactor Division. All members, wives and visitors are cordially invited to attend. Details may be obtained from Charles M. Knowles, telephone extension 7201.

## UN Study Group To Hear UT's Lawrence Silverman

The United Nation's Study Group will meet next Thursday, December 13, at 8 p.m. in the School Administration Building on the Turnpike at Administration Road. Dr. Lawrence Silverman, faculty member of the University of Tennessee's History Department, will lead a discussion "Aspects of Soviet Foreign Policy," with emphasis on Russia's current motives in areas of recent world tension.

All UN Study Group meetings are open to the public, and newcomers will be most welcome at the meetings.

## Physics Division Miller To Conduct ORNL Seminar

P. D. Miller, Jr., Oak Ridge National Laboratory Physics Division, will conduct the seminar this Friday for the Physics Division. His topic will be "Nuclear Physics Research at Harwell."

The seminar is set for 3:15 p.m. Friday, December 7, at Building 4500's East Auditorium.

## SAFETY SCOREBOARD

The Y-12 Plant Has Operated 26 Days Or 780,000 Man-Hours (Unofficial Estimate) Without A Disabling Injury Through December 2  
Phone 7755  
For Daily Report On Accident-Free Hours

## Chemical Engineers Meet Features Weather Talk

The Knoxville Oak Ridge section of the American Institute of Chemical Engineers will meet in Oak Ridge Tuesday, December 11. The meeting is scheduled for 8 p.m. in Room 18 of the Oak Ridge Institute of Nuclear Studies Training Building.

Guest speaker will be E. M. Ramsey of the United States Weather Bureau. He will speak on "Long Range Weather Forecasting."

Guests will be welcome to attend the AICHE meeting.

# The Bulletin

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## Agricultural Benefits From Car Manufacture

### Acreage Eaten Up By Auto Industry

The steel industry is not the only beneficiary from the automobile manufacturing companies. Agriculture also benefits greatly from the sales of cars. Just listen to this: To produce a million automobiles requires:

- 89,000,000 pounds of cotton—the crop from 558,000 acres, (for upholstery, brake linings, timing gears, and safety glass).
- 500,000 bushels of corn—the harvest of 11,280 acres, (for rubber substitute butyl, alcohol and solvents).
- 2,400,000 pounds of linseed oil—the yield of 17,500 acres of flax, (for paints, oil, soap, and glycerine).
- 2,500,000 gallons of molasses from 12,500 acres of sugar cane, (for anti-freeze, shock absorber fluids, and solvents).
- 3,200,000 pounds of wool from 800,000 head of sheep, (for upholstery, gaskets, anti-rust, floor coverings, and lubricants).
- 1,500,000 square feet of leather from 30,000 head of cattle, (for upholstery, hide, and glues).
- 20,000 hogs to supply 1,000,000 pounds of lard, (for lubricants, oleic acids, and bristles for brushes).
- 350,000 pounds of mohair from 87,500 goats, (for pile fabrics, upholstery).
- 2,000,000 pounds of soybean oil from the crop of 10,000 acres, (for enamels).

The above does not include metals and mineral fuels utilized by the automotive industry. Since the first World War, the United States has used more raw materials than throughout the entire world's history prior to 1914. It is difficult to imagine that in 47 years Americans have used as much of the earth's riches as all the people in the world had used in 4,000 years!

## Y-12ers Celebrating 15, 10 Year Anniversaries

Congratulations to the following Y-12ers who will observe 15 and 10 year anniversaries with Carbide within the next few days.

### 15 YEARS

**Millard E. Kitchens**, Area Maintenance, December 10.

**John H. Guess**, Area Five Maintenance, December 10.

**Glen R. Walls**, General Expediting and Auxiliary Services, December 10.

### 10 YEARS

**Henry T. Greene Jr.**, Alpha Four Cascade Operations, December 8.

**David G. Porter**, Electrical, December 8.

**Rufus Voyles**, Janitors Department, December 9.

**Robert D. Shank**, Research Services, December 10.

**Clyde H. Wade**, Building, Grounds and Maintenance Shops, December 11.

Report security discrepancies immediately!



News this week begins in

### CHEMICAL OPERATIONS

The Chemical Department reports **F. S. Stroupe** vacationing last week, spending a few days in Virginia.

### TECHNICAL

Statistical Services salutes its latest proud pop... as **Dan Dawson** welcomes in little Dana Lee, born November 26 in Oak Ridge Hospital. He weighed eight, eight and one-half.

### ENGINEERING

Project Engineering folks were abuzz recently over news from the former **Jo Ann Kincaid** (now **Berta**). She has a little boy, **George Allen Berta**, born in New Jersey, November 13. Little George weighed seven pounds, 15 ounces.

Tool Engineering folks are thinking about giving **John Bennett** a net for Christmas so he can spread it under his car to catch falling parts. Poor John had the transmission to drop out of his car the other day.

Joining the real-gone cool cats with a new souped up job is **W. K. Forrester**. Translation: Bill has a new car with a super-charged engine... **Grover Bell** is vacationing around Norris; says he plans to finish his last-minute Christmas shopping.

### MAINTENANCE



Brenda, Freddy & Frances

The fine looking youngsters are the reason Research Services folks are congratulating the **W. H. Benders**... Bender is in 9201-2, and the lad and two ladies are in his newly acquired family. Must be why he's been smiling so much these days.

### FINANCE AND MATERIALS

Timekeeping tells that **J. A. Shell** and his wife took in the Tennessee-Vandy ball game first-class last week-end, as guests of a local supermarket. They recently won two tickets to the game with all expenses paid, including the trip by plane...

**Ira Shotts** is vacationing this week down in Alabama visiting relatives.

Sincere sympathy to **Wanda Hawn**, Cashier-Travel, and her family on the recent death of her brother.

Microreproduction and Engineering Services has **Tom Hillard** vacationing this week at home in Oak Ridge trying out his new gas-devourer.

### INDUSTRIAL RELATIONS

The Fire and Guardsmen are welcoming back **R. G. Perkins** after a stay in Vanderbilt Hospital... Get well wishes to **G. A. Atchley**, ill in Presbyterian Hospital, Knoxville... Sympathy is extended to **K. G. Edgemon** in the death of his mother... also to the **G. A. May** family. His nephew died recently.

### MECHANICAL OPERATIONS

Flash... Scoop... Flash... Beta Four Heavy Machine Shop sends word that **C. E. Costner** is a happy father again as son number two put in appearance at 5:25 a.m. November 29. Arriving at dawn, the little fellow was

named **Jeffrey Scott**, and tipped the scales at six pounds, three and one-half ounces.

Other news from Beta Four has **J. R. Pugh**, Assembly, a father again... his son number two was born November 25 at Blount Memorial Hospital, Maryville. **Todd Christopher** weighed seven pounds, nine ounces... **Henry Carey** is back after a vacation tramping through the woods with his son, pretending he was hunting. Probably took the family cat for tracking purposes.

Poor **Jim Craig** only has one tooth left now (it's a good thing Tennessee's schedule mercifully came to an end)... Vacationers include **R. L. Smith**, **D. K. Branson**, on activities unknown... **Labron Valentine** is still ill and best wishes to him... The Leather Stocking boys from the shop went rabbit hunting last week-end. All but the great **Nimrod**, **Ed Harrell**, came back with his limit. Ed won't soon forget his ineptness with a shootin' arm.

From Beta Two it's learned that **E. W. Forbes** ran his beagles a good deal while he was off on vacation... **S. J. Cox**, **B. E. Christopher** and **T. H. McDonald** all took vacation but left no forwarding addresses... The whole shop is overjoyed to see **G. P. McGhee** take another week of vacation, since the first one did him so much good.

From F Area it's told that **E. R. Stover** is out with the mumps, and **R. A. Williams** is on the ailing list, too. Best wishes to them... **Ed Johnston** vacationed going down to Georgia for a few days and then back home to work around the old homestead for a while... **J. L. Armes** is a welcome sight back after his lengthy illness... Best wishes to **J. H. Billingsley's** wife, ill in the hospital.

**F. K. Ellison** spent his vacation in Florida.

And seeing the sights in Cincinnati, Ohio, was **Ruth Young**.

Thought for today: Don't worry about a thing. Nothing is going to be all right!

### SHIFT SUPERINTENDENTS AND UTILITIES

Vacationing at home enjoying the spring weather are **W. J. Wiggins** and **F. M. Gambill**... **J. A. Morgan** also vacationed, but didn't reveal his plans... **C. D. Langley** is working on his saw mill during his vacation, doesn't sound like much of a vacation, what, eh?... **L. Walker** is enjoying a brand new car. (Looks like somebody



INTO THE DRINK goes Ed Ellis on a frosty morning in November. He doesn't recommend swimming during the winter months. (He didn't even recommend that this story be run!)

## Is Swimming Fully Clothed Newest Thing In Fashions, Fads?

Mrs. Robert Kennedy apparently started a fad with her parties... swimming with clothes on.

**E. C. Ellis**, superintendent of the Finance and Materials Division, last summer decided to build himself a swimming pool. He and the boys did most of the labor and all during the sultry months a dip in the pool proved most refreshing.

However... cold, frosty November mornings are not recommended for swimming, especially full clothed. It seems the Ellises decided to get an early start shop-

ping on a recent Saturday. Awaiting Mrs. Ellis, Ed decided to rake a few leaves off the water. The telephone rang, and you guessed it... in he went, glasses, wearing apparel and all!

There's a happy ending to the story. He did NOT take pneumonia (but he hasn't joined the Polar Bear Club yet). Also since part of the green on his money rubbed off, he went out promptly and bought a new car. As Shakespeare put it, "sweet are the uses of adversity."

got under the Christmas tree early, doesn't it?)

**D Shift** reports a lot of long week-end activities with **O. F. Jordan** minding the store... **E. W. Mahan** sitting back enjoying a new color TV... **D. Stevens** visited his brother who is ill in Jellico... **P. L. Beeler** hunted geese over the week-end... **J. D. Tolliver** visited his father in Williamsburg, Kentucky... **J. A. Wade** helped with baby sitting during his long break.

Get well wishes are extended to **L. Elsbree's** wife, ill in Oak Ridge Hospital.

You'uns hurry back.

### TONGUE OF FIRE

One of the Western Hemisphere's most deadly snakes, the fer de lance, inhabits the jungles of Central America.

## Lithos And Etchings At Art Center Show

An exhibition of 42 lithographs and etchings by contemporary European masters will be presented by the Oak Ridge Art Center beginning Sunday, November 29, from 3 until 6 p.m. and continuing every Tuesday and Thursday, from 7 until 9 p.m. through November 23.

These prints are for sale at prices ranging from \$10 to \$110, and many art patrons will find prints suitable for their own tastes or for Christmas presents. There is a variety of styles with both abstract and representational works in evidence in the exhibit.

Works sold must remain in the show until the end of its stay in Oak Ridge, but can then be removed before the exhibition is shipped on to its next stop. The exhibit will be in the Art Center's Gallery on Outer Drive and Ogden Lane, and is free.

## '3-Penny Opera' Try-Outs Sunday

Try-outs are being held Sunday, December 9, for parts in Kurt Weil's immortal nonsense "The Threepenny Opera." Try-out times are 2 p.m. and again at 8 p.m. at the Playhouse in Oak Ridge.

A cast of 19 is required for the opus, and a motley group it is at that. Eleven men and eight women comprise the cast of beggars and thieves. Ages are relatively unimportant, since there is no one in the play under 20. Good voices are required for the parts of MacHeath and Polly, but not the rest of the cast... just an ability to keep a tune.

An orchestra of eight musicians will be used. A trumpet, trombone, piano, clarinet, sax, banjo and drums will be required for the rather difficult music. Rehearsals for the production will begin in January and the program will be staged in March.



FREDA AND MACK McGUFFIN proudly display the two deer they shot recently on the Catoosa Wildlife Management Area. They live at 129 Pembroke Road, Oak Ridge. McGuffin is in Y-12's Research Services Department. Venison, anyone?

# Rebels In Classic Lead By A Whisker

## Rippers' Wayne Groppe Rolls High 235 Game

Back from the holidays surged the Classic League of Y-12 bowlers last week. The deadlock for first place was resolved, at least temporarily, as the Rebels edged out in front by defeating the Wasps for three points. The second placed Swingsters lost three to the All Stars. Four point victories were marked up as the Sportsmen took the Has Beens, the Rippers reduced the Cubs and the Screwballs overcame the Tigers. Winning by three, the Markers melted the Smelters, the Wolves took the Eightballs, and the Playboys bumped the Bumpers.

Wayne Groppe, Rippers, had high singles, taking a 235 scratch and 252 handicap game. George Cantrell, Swingsters, had high series scratch score with 590, while Dan Stroud, Wolves, took high handicap series with 657.

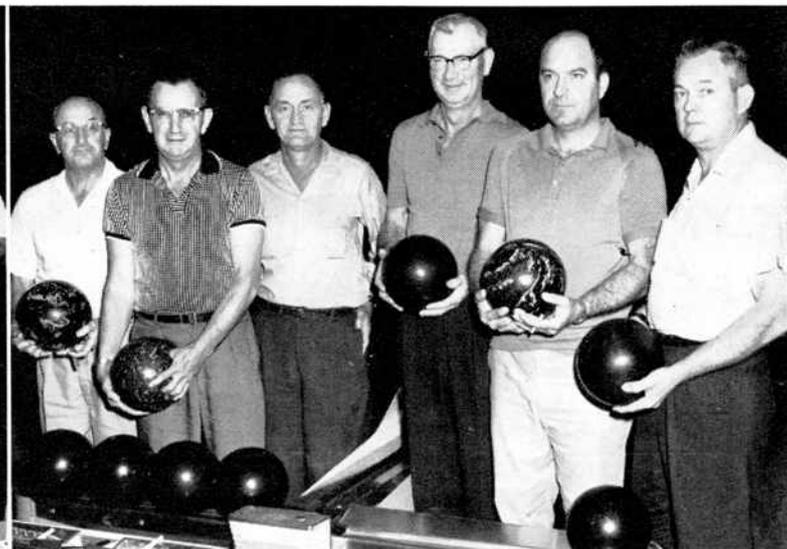
The Sportsmen took team honors in scratch play with a 920 single and 2597 series tally. The Playboys took handicap tops with a 1043 single and 2964 series total.

League standings follow:

Team	Won	Lost
Rebels	34	14
Swingsters	32	16
Markers	31	17
Sportsmen	31	17
Rippers	29	19
Screwballs	27	21
Has Beens	25	23
Bumpers	24	24
Wolves	24	24
Cubs	22	26
Smelters	21	27
All Stars	21	27
Tigers	20	28
Playboys	17	31
Wasps	16	32
Eightballs	10	38



**MORE CLASSY TEAMS** line up in the Classic League for Y-12 bowlers. At left are the Wolves made up of Dan Stroud, Merle Emery, Capt. Ed Gambill, F. C. Uffelmann, and Tom Perry. The mean-looking team at the right is the Bumpers. From left



the Bumpers are Ernie Cobble, G. B. Galloway, Capt. Avery Kendig, Elmer Green, Clyde Smith and J. A. Whitten. The Classic League rolls on Thursday nights at Ark Lanes, Oak Ridge.



**Y-12'S OLDEST** and largest bowling league, the Classic League, boasts the above officers. From left are Avery Kendig, vice president; Bill Mee, president; and Roy Roberts, secretary.

# Pistol League Starts Team Competition

Team firing began last week in the Y-12 Pistol League with four teams in the competition. Dave Alford, Red, took high scratch score in the tenth match with a total 276. G. I. Davis, Blue, scored high handicap in the ninth match with 292.562.

The following points were registered by the respective teams, as the scratch scoring of the three highest pistoleers are given.

Team	Points
Red	731.69
White	725.73
Blue	721.27
Green	700.82

### BOOKISH LEARNING

According to a recent survey conducted in Ohio, the average college students read 24.8 books a year (or says he does, at least.)

# Hiking Club Plans Final 1962 Hike

The Smoky Mountains Hiking Club is planning a climb up Greenbrier Pinnacle for the final hike of the year Sunday, December 9. Weather will determine the severity of the hike, that is, snow or rain will make this hike more difficult. The hike begins on the Ramsey Cascades Road and the group hopes to eat lunch at the fire-tower atop the Pinnacle. The view is said to be spectacular.

Hikers are not recommending this one for the inexperienced hiker. Interested parties may contact Margaret Gottshall, Oak Ridge telephone 483-1938, or Ed Sonder, telephone 483-5842.

Security requires a year-round performance.

# Pin Plasters Keep Mixed League Lead

## Rader And Taylor Take Female Honors

The Mixed League's Pin Plasters increased their lead last week among the Y-12 bowlers by scrapping the Scrapers for three points. The only other such win was posted by the Alley Cats over the Toppers. The remaining tilts were draws as the following teams split scores: the Goofers and Ghosts, and the Cool Cats and the Phantoms.

Georgia Rader, Pin Plasters, took most female honors with a 176 single scratch game, a 225 single handicap score and a 429 scratch series. Margaret Taylor, Pin Plasters, took high handicap series with 577. Bob Hagood, Alley Cats, took singles with a 216 scratch and a 239 handicap game. Charlie Gillihan, Ghosts, took series honors with a 579 scratch and a 666 handicap score.

The Goofers took high single scratch game with 606, while the Pin Plasters continued the sweep with 837, 1737 and 2261 scores.

Team	Won	Lost
Pin Plasters	32	8
Goofers	28	12
Cool Cats	21	19
Phantoms	19	21
Ghosts	18	22
Alley Cats	16	24
Scrapers	15	25
Toppers	11	29

# A Seventh Of US Trade In Retail Gives Stamps

Trading stamps, which have become so familiar to the American housewife, are now being given with purchases by some 250,000 stores doing a seventh of the United States retail trade. Close to three of every four households collect these stamps, and redemptions for merchandise last year came to between \$600 and \$700 millions.

# Top 6 Teams In C League All Win Big

The six leading teams in the C League for Y-12 bowlers all downed opponents last week to keep the standings on an even keel. The league-leading Sunflowers tromped the Hookers by four points, as did the Rounders over the Rodders, the Lucky Strikes over the SP's and the Big Five over the Screwballs. Tied for third place the Hi Lifers took the Par Busters by three.

Charles Gaylor, Sunflowers, rolled a high 234 single scratch game, pushed to a 258 handicap game. J. E. Morgan, Rounders, took high scratch series honors with 578, while Stan Cole, Lucky Strikes, rolled high handicap series with a 656.

The Lucky Strikes took high singles scratch with 908, while C Shift-men took handicap singles with 1056. The Rounders capped series tops with 2647 scratch and 2944 handicap tallies.

Team	Won	Lost
Sunflowers	36	12
Rounders	33	15
Hi Lifers	32½	15½
Lucky Strikes	32½	15½
Big Five	28	20
C Shift	22	26
Strikers	22	26
Par Busters	21	27
Rodders	19	29
SP's	18	30
Hookers	15	33
Screwballs	10	28

# Rusty 5 New Lead In Bush League

## Rollmasters Sweep Boards For Team Highs

The Rusty Five moved into the lead in the Bush League for Y-12 bowlers last week with their three-point win over the Beavers. The only sweep saw the Seven Sixties take four from the Rollniks. Other three-point wins had the Reagents over the Dry Hides, and the Rollmasters over the Hi Balls. The Lucky Five drew the bye of the week.

Roy Scates, Reagents, took highs in a single game, rolling a 215 scratch single. Harold Crouch, Rusty Five, had a high single handicap score of 246. Gene Boyd, Rollmasters, took off with a 555 scratch series, and his teammate Frank Winstead had a handicap series score of 662.

The Rollmasters swept the boards clean teamwise with scores of 874, 1063, 2542, and 3019, setting new highs in the handicap series class, as well as single score games.

Team	Won	Lost
Rusty Five	9	3
Reagents	8	4
Rollmasters	8	4
Hi Balls	5	3
Lucky Five	6	6
Dry Hides	6	6
Seven Sixties	5	7
Beavers	2	6
Rollniks	0	12

# Basketball Bows With 6 Big Teams

## Y-12 Teams Fair Well In Initial Games

The Carbide Basketball League got underway for the winter last week with four Y-12 teams enrolled, and two from the Oak Ridge Gaseous Diffusion Plant.

The Y-12 teams are the Atoms, captained by Ed Cothron; the Eagles led by John Pridgeon; the Flyers, with D. W. Daws, at the helm; and the Misfits, headed by C. A. Peters.

Y-12's teams did well in the opening night of action. The Atoms downed the All-Stars, ORGDP, to the tune of 38 to 31. Led by Bill Lanter's 10 points and Jim George's nine, the Atoms were never in serious trouble.

The Eagles showed their mighty claws taking the Lab Demons down by 58 to 25. The Demons were at a disadvantage playing with only four men on the floor. Bob Culton scored a mighty 23 points and Dan Greaser clipped off 10 for the Y-12 Eagles.

Two Y-12 teams clashed as the Flyers unfitted the Misfits 57 to 22. Carlos Brooks and Lou Fitzgerald scored 16 points each for the winners. Jerry Bab scored eight for the losing Misfits.

Initial Standings follow:

Team	Won	Lost
Atoms	1	0
Eagles	1	0
Flyers	1	0
All Stars (ORGDP)	0	1
Lab Demons (ORGDP)	0	1
Misfits	0	1

# Ten Pins Edge Up On Leaders In E League

The Ten Pins moved up to within a point and a half from first place in the E League for Y-12 bowlers last week, by tromping their opponents the Pintwisters for three games and total pins. Also winning by the full four were the Cannonballs over the Pinquins. The Alleybees trounced first-placed Foursquares by three points.

Bruce Hogg, Ten Pins, took individual honors almost all the way by scoring a 200 single scratch game, 236 handicap single, 483 scratch series. Fred Jones, Foursquares, took series handicap highs with 605.

The Foursquares led in single scratch scoring with 629; the Ten Pins took single handicaps with 806, while the Alleybees took series tops with 1763 scratch and 2282 handicap tallies.

League standings follow:

Team	Won	Lost
Foursquares	28½	19½
Ten Pins	27	21
Alleybees	26	22
Pinquins	22½	25½
Pintwisters	21	27
Cannonballs	19	29



**THIS 10 POINT BUCK** was taken by T. L. Wheeler, Alpha Five, recently, during the first week of the open hunt on Tackett Creek. The deer weighed 175 pounds. The reporter didn't know what Wheeler weighed.

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A BIG HELPING HAND for Santa is Chester "Bobo" Barnett, internationally known clown-tramp. He will be on hand for the Carbide Kids' parties to be held Saturday, December 22, at the Oak Ridge High School.



MOST OF THESE MEN, IT SEEMS, took safety awards that the little woman had selected. The 30th safety award given to Y-12ers went out last for the period from March 22 through August 7, 1961, which included 4,644,000 man-hours worked free of lost-time injuries.



Will join car pool from Elm Grove section, Oak Ridge, vicinity of Delaware Avenue, to West Portal, straight day. Robert Bartley, plant phone 7-8078, home phone Oak Ridge 483-3151.

Riders wanted from Rambling Acres section, West Haven, via Pleasant Ridge Road, Solway, to East or North Portal, straight day. Bradley Napier, plant phone 7602, home phone Knoxville 523-1064.

Two riders wanted from Pine Hills, Harriman, via Blair, to West or Bear Creek Portal, straight day. Bradley Napier, plant phone 7602, home phone Knoxville 523-1064.

Two riders wanted from Pine Hills, Harriman, via Blair, to West or Bear Creek Portal, straight day. R. W. Curtis, plant phone 7-8465, home phone Harriman 882-9291.

Riders wanted from Cumberland Estates, to East or North Portal, straight day. T. P. McDonald, plant phone 7429, home phone Knoxville 588-8348.



OTHER RECIPIENTS of the 30th safety award to Y-12ers line up at Hazel Lane's window. The Safety Department is starting a campaign "Accident-Free in '63" to make the new year a spotless one as far as lost-time accidents are concerned.

**More Men Than Women Are Dying Of Cancer**

A generation ago cancer was thought of as a woman's disease. Today more men than women are dying of cancer. The ratio is 54-46. Why?

One big reason is the sharply rising rate of death from lung cancer among men who have been cigarette smokers for years—a shocking 500 per cent increase in the last 25 years! Another reason: the death rate among women from uterine cancer has dropped 50 per cent during the same period. In both sexes combined, cancer of the colon and rectum remains the leading cause of cancer deaths.

To overcome these threats, the American Cancer Society urges an annual health checkup for all, including a proctoscopic examination of the rectum and colon; a pelvic examination for women, including a "Pap" smear; and for men who are smokers, a chest X-ray at least once a year. But, the best protection against lung cancer is not to smoke.

Cancer is best controlled by regular check-ups.

**Production Certification Plans Yuletide Party**

Y-12's Production Certification Division is staging its Christmas dinner-dance Saturday, December 8. The combination dinner, party gets underway at 7 p.m. Physical Testing, Plant Laboratory and Production Inspection representatives all have available tickets for sale for the event. Couple tickets are \$6 per, which includes both dinner and dancing or \$3 per couple for the dance only. Dave Blessing will provide the music for the occasion.

**BIRD IN THE BUSH**

Of the world's 8,590 species of birds, at least 45 different kinds cannot fly. Among the grounded flyers are the kiwi, the emu, the ostrich, the penguin and many others.

**AEC Official Cites Safe Transportation**

Radioactive materials have been transported across the nation for the past 20 years without a serious accident involving radiation, an Atomic Energy Commission official stated recently.

Joseph A. Lenhard, Senior Health Physicist with the Research and Development Division of AEC's Oak Ridge Operations, spoke before the Oak Ridge Kiwanis Club on the Commission's program of providing specialized assistance in connection with accidents involving radioactive materials. ORO has responsibility for providing assistance when requested by state or local authorities in eight states.

"The thought of accidents involving radioactive materials often causes undue alarm," he said, "We live with much more serious non-nuclear hazards on a day to day basis than the transportation of radioactive materials could ever cause."

"The safeguards which surround the nuclear energy field have made this one of the safest industries in the nation," Lenhard continued.

Referring to the radiological assistance plan, Lenhard said the "assistance given in any particular incident might range from telephone advice to the dispatch of a fully equipped team of specialists prepared to evaluate a problem and give radiation protection and medical advice if required."

**Bigness Of Heart Not Necessarily Good**

"The bigger the better" does not necessarily apply to the heart. People's hearts vary in size but enlargement beyond an individual's norm is generally associated with heart disease, according to the East Tennessee Heart Association.

**Application For Tickets**

TO

**Christmas Parties**

FOR CHILDREN OF CARBIDE EMPLOYEES

(Ages Two-10 Only)

SATURDAY, DECEMBER 22

Employee's Name \_\_\_\_\_ Badge No. \_\_\_\_\_

Home Address \_\_\_\_\_  
(PLEASE PRINT—STREET ADDRESS OR R.F.D., CITY)

NUMBER OF TICKETS (Children) \_\_\_\_\_

NUMBER OF TICKETS (Adult) \_\_\_\_\_

— CHECK TIME PREFERRED —

Saturday, December 22 9 A.M. \_\_\_\_\_ 11 A.M. \_\_\_\_\_

Only 1 P.M. \_\_\_\_\_ 3 P.M. \_\_\_\_\_ 5 P.M. \_\_\_\_\_

Please check first and second choice (write in space "1" or "2") as only a limited number of tickets will be issued for each party. Preference will be given early applicants and if tickets for first choice are exhausted, tickets for second choice will be issued.

Return this form, properly and completely filled in, immediately to the Y-12 Recreation Office, Room 149, Bldg. 9704-2, NOT LATER than December 18. The required number of tickets will then be mailed to parents at their HOME ADDRESS.