

Thrust And Parry

The closest most Americans have ever come to fencing is watching a dashing Errol Flynn duel with the bad guy in some Hollywood epic. Nowadays, although it doesn't receive much publicity, there are more fencers than you would expect in the United States. One of them is right here at Brookhaven.

Stanley Lekach, a Computer Science Analyst in the Thermal Reactor Safety section of DAS, is a top-ranking competitive fencer. He has been a member of the U.S. national team in three world competitions: in 1970 at Ankara, in 1974 at Grenoble, and last July, in Budapest. And, now, he says, "My goal is to make the Olympic team."

Lekach "wandered" into fencing. Looking for a physical education course while a sophomore at the University of California at Berkeley, he chose fencing, liked it, and decided to work at it. Working at it led to the University team, and later, to the World University Games, "the Olympics for college students" in Turin, Italy. From 1970-71, he held a research assistantship in Brussels, so was in an ideal spot, the summer of 1970, to participate in both the Ankara and Turin tournaments.

Born in Lvov, Russia, Lekach lived there for ten years until his parents emigrated to Santiago, Chile. He is still fluent in Russian and Spanish. A further emigration, four years later, brought him to California. He obtained his bachelor's and master's degrees from the University of California at Berkeley, and before coming to Brookhaven in March 1974, spent two years in nuclear engineering and computer analysis at Rockwell International in California.

Though research may keep the brain active, it doesn't tone up the muscles. To keep in shape, Stan fences two evenings a week



Stan Lekach in action.

and "sometimes on weekends," at the New York Athletic Club.

People who fence seriously are generally very good athletes but, according to Lekach, "how well you do is not a direct result of how much you train." Fencing is a game of strategy and "there's a lot of thinking involved to out-manuever your opponent."

Although he does not believe fencing will ever be a spectator sport, because "you have to be in it to appreciate the subtleties involved," he would like to encourage people to take it up for the exercise and increased perception it develops.

The only equipment a beginner needs, he says, is a pair of sneakers and loose-fitting pants. Fencing clubs usually have other equipment on hand. There are several fencing groups on Long Island, according to

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Wanted

Painters, sculptors, potters, jewelers, et al. Don't forget to register the articles you wish to include in the BERA Art Exhibit, opening November 11. Forms are available in the BERA Sales & Services Office in Berkner Hall and should be forwarded to the Chairman of the Art Committee, Ginnie Sayre, Bldg. 460, by October 28.



John Bittner (left) views the scanning transmission electron microscope as Joseph Wall views the image transmitted by the microscope in the TV monitor. Wall and Bittner head the STEM project.

STEM - An Expanded View

STEM, a Scanning Transmission Electron Microscope, one of three such microscopes in the world, has just gone into operation in the Biology Department.

STEM will be capable of magnifying objects 10 million times. With a resolution of 20 billionths of a centimeter (2 angstroms), it will allow investigators to see single heavy atoms such as uranium and unstained biological molecules like DNA. The microscope is presently operating at 5 angstrom resolution.

Joseph S. Wall, an Associate Biologist, and John W. Bittner, a Physicist, are in charge of the project. Wall, while a graduate student at the University of Chicago, designed and built a prototype STEM under the direction of Professor Albert V. Crewe.

Bittner was a staff member in the Advanced Accelerator Division of the Accelerator Department. John P. Blewett, who then headed the Division, was instrumental in getting the STEM project started three and a half years ago. The project is now administered by Elliott N. Shaw and Myron C. Ledbetter.

The source of the microscope's high resolution and magnifying abilities is a sharp point of tungsten wire. When voltage is applied, very high electric fields are created at the point and electrons are literally pulled out, forming an electron beam of uniform energy. The electrons are accelerated to an energy of 100,000 electron volts and focused by means of a precise magnetic lens into a spot on the specimen about 2 angstroms in diameter. By use of magnetic deflection coils, this focused beam scans over a selected area of the specimen in a manner similar to that of the electron beam on the face of a television receiver.

In a conventional scanning microscope, secondary electrons are produced near the specimen surface due to the incident scanning beam and are detected. The resulting signal is used to produce an image on a television monitor which is synchronized with the electron beam scanning the specimen.

In STEM, however, the beam of electrons passes through the specimen and is picked up and analyzed by a series of sensitive detectors. The detectors are able to differentiate between electrons that have interacted through various mechanisms with atoms in the specimen. The resulting signals are combined to produce an image on the TV monitor in which a particular aspect is enhanced. For example, it is possible to produce images in which only heavy atoms or light atoms are visible. These detectors analyze nearly all of the electrons passing through the specimen. This makes it possible to record images with lower doses and corresponding radiation damage than is possible in other electron microscopes.

Such an important piece of equipment does require elaborate housing. It is very

sensitive to vibration and stray magnetic fields, as well as dust particles. The microscope is thus located in a soundproof, clean room equipped with a charcoal filtered air supply. To further guard against vibrations, the one-ton microscope rests on a six-ton concrete block suspended on air springs. An adjacent clean room is used for specimen preparation.

STEM requires an "Ultra High" vacuum system. The tungsten point electron emitter requires a vacuum of about 10⁻¹⁰ Torr, about 10,000 times lower pressure than a conventional electron microscope. It is important that such a vacuum also surround the specimen to reduce contamination from adsorbed gas molecules.

Currently, specimens are prepared for electron microscopy by drying them in a pool of heavy atoms, usually a solution of uranium salt. The heavy atoms encase the specimen, creating a surface that will scatter electrons, allowing for good contrast of the image. Eventually, the specimens for STEM will be frozen in liquid nitrogen after being selectively tagged with heavy atoms. Freezing causes far less structural damage than drying, and by selectively attaching single heavy atoms on a molecule, particular sites on the molecule can be distinctly imaged. This procedure of selective tagging is useful for determining the structure of complex objects such as viruses.

STEM can also be used to "weigh" single molecules and virus particles by taking advantage of the quantitative relationship

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Physics In Congress

To generate a strong working relationship between the congressional and scientific communities, the American Physical Society will support two Fellows who will spend one year, beginning in September 1976, as members of the staff of a congressman or of a congressional committee.

Prospective Fellows, postdoctoral level to mid-career scientists, are expected to show exceptional competence in some area of physics, have a broad background in science and technology and have a strong interest and some experience in applying scientific knowledge toward the solution of social problems.

The deadline for applications is March 15, 1976. Details are posted at the Office of Scientific Personnel, Bldg. 460, 40 Brookhaven Avenue.

The program is coordinated by the American Association for the Advancement of Science. Other participating professional societies are: the American Institute of Aeronautics and Astronautics, the American Psychological Association, the Federation of American Societies for Experimental Biology and the Institute of Electrical and Electronics Engineers.

Pianist Opens Concert Season

Walter Klien, the world-renowned pianist, will open the BERA Concert Series with a recital on Thursday, October 30, at 8:30 p.m. in Berkner Hall.

Known throughout the world for his recordings of the complete solo piano works of Mozart and Brahms, Walter Klien has been called by critics "the greatest Mozart player today." Born in Graz, Austria, Walter Klien began playing the piano at the age of five, and entered formal studies in piano, composition and conducting when he was eleven. Later he studied at the Conservatorium in Graz, at the Vienna Academy of Music, and completed his piano studies with Arturo Benedetti Michelangeli in Italy and his work on composition with Paul Hindemith. He won prizes at the International Piano Competitions of "Ferruccio Busoni" in Bolzano, "Margaret Long-Jacques Thibaud" in Paris, and in 1953 he was awarded the Bosendorfer prize in Vienna.

Since 1954 Mr. Klien has toured extensively throughout Europe, South America, South Africa, Japan and the Far East and has appeared with major orchestras all over the world. In addition, Klien tours North America every year to perform with major orchestras. In recent seasons he has performed the Schoenberg Concerto with the Detroit Symphony and with the Philadelphia Orchestra under the baton of Eugene Ormandy.

A recent Schumann concert given in London prompted one critic to write, "Klien is in every respect a perfect artist with a searching musicianship, an infallible technique and an infinite range of colors and touch at his disposal. As a stylist he can surely have few equals and no better."

Klien's repertoire is not confined to the classics; he has also won great acclaim for his performances of modern composers such



Walter Klien, concert pianist.

as Stravinsky, Ravel, Hindemith, and Schoenberg.

The remaining concerts in the schedule are: The Alban Berg Quartet on November 17; Samuel Baron (flute), Ronald Rose-

(Continued on page 2)

Energy Dialogue

Frank Zarb, chief U.S. energy advisor to President Ford, will discuss world-wide energy needs with representatives of the Organization of Petroleum Exporting Countries (OPEC), Ralph Nader's Public Interest Research Group (PIRG) and the Huntington Consumer Protection Board at an open meeting at Huntington High School, Friday, October 24, at 8:30 p.m. Huntington High School is located at Oakwood and McKay Roads in Huntington.

Postal Bulletin

Although it seems early to be thinking about Christmas mail, it is not too early to send surface mail to the Far East. Parcels should be sent immediately and greeting cards by October 25. Deadlines for both domestic and international mail are listed below.

Domestic Mail			
	Air Letters	Surface Parcels	Surface Parcels
48 U.S. states	Dec. 15	Dec. 21	Dec. 10
Alaska and Hawaii	Dec. 15	Dec. 20	Nov. 30
International Mail			
	Air Greeting Cards	Air Parcels	Surface Parcels
Canada and Mexico	Dec. 19	Dec. 15	
South & Central Amer.	Dec. 16	Dec. 11	
Europe	Dec. 16	Dec. 11	
Africa	Dec. 14	Dec. 9	
Near East	Dec. 14	Dec. 9	
Far East	Dec. 14	Dec. 9	
	Greeting Cards	Surface Parcels	Surface Parcels
Canada and Mexico	Dec. 8	Dec. 2	
South & Central Amer.	Nov. 18	Nov. 11	
Europe	Nov. 18	Nov. 11	
Africa	Nov. 4	Nov. 1	
Near East	Nov. 4	Nov. 1	
Far East	Oct. 25	Oct. 15	

Fencer (Continued)

Lekach, and several high schools have fencing teams.

Age is no barrier to engaging in the sport, but competitive fencers range anywhere from 15 to 40 years of age. As Lekach observed, "When you're younger, your reflexes are better, but as you get older, you get foxier." Stan is 28.

There are three weapons used in fencing: foil, epee and sabre. Stan started with the foil, but decided the sabre was more to his liking. Although Errol Flynn may have inflicted a mortal wound in his movie bouts, real-life fencers do not now run the risk of a wound. All weapons have blunted ends



The man in the middle - Stan Lekach - fencer and nuclear engineer.

and flexible blades, and there is no question of spilling blood.

The Amateur Fencing League of America has about 6000 members and their numbers are growing. Quite a few of this number are women. In competition fencing, women fence only other women and the rules are the same. For largely traditional reasons, present-day women fencers have been confined to using only the foil. However, they are now agitating to use all three weapons.

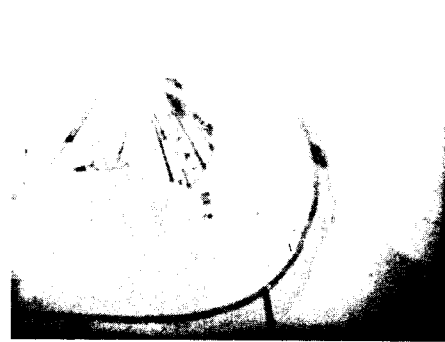
The next Olympic Games are to be held in July 1976 in Montreal. Stan feels he has a good chance of making the team. He is a Class A fencer and is now in the top seven of the sabre class in the country. Five men for each of the three weapons are selected for the teams from fencers with the highest points garnered from numerous competitions. If all goes well, Brookhaven, which has had representatives in many other areas, may have one at the next Olympic Games.

New Microscope (Continued)

between electron scattering intensity and mass.

The other half of the STEM team includes Don Cassidy, a senior technical specialist who constructed most of the electronic equipment and Frank Kito, a designer who assisted in the mechanical design and produced most of the working mechanical drawings. Bob Dillingham, Ed Zeidler and Louie Fleischman, of Instrumentation Division, machined most of the delicate mechanical parts.

Within a year, STEM will be hooked up to a computer so images can be stored and recalled for analysis. Once it is in full operation, this microscope is expected to be a major user facility, available to researchers throughout the country.



Frank Kito (left), a designer, and Don Cassidy, a senior technical specialist, the other members of the STEM team who also burned the midnight oil to get the microscope into operation.



John Bittner inserts a specimen into STEM, the new scanning transmission electron microscope in Biology.



Image of Tobacco Mosaic Virus particle transmitted by STEM. This rod-shaped virus particle is 180 Å in diameter with a central hole and a 23 Å axial repeat. Photographs are 3000 Å full scale.

Changes Due In FTS

In the next few weeks, you'll be hearing a lot about the 10-7 conversion. Scientists will probably wonder, "What the devil is that?" and the rest of the staff will think that scientists have been changing some machine. However, the 10-7 conversion will apply to all of us.

It is a new system for FTS which will go into effect on December 1. It goes like this:

All ON-NET FTS calls will be completed by dialing the usual access code 8, and a seven digit number which, in most cases, will be changed from the present number. For example, BNL's current FTS number is 8-516-345-2123. On December 1, it will be 8-664-2123.

As you will note, the area code 516 disappears; the exchange becomes 664 on FTS only; and these changes apply just to ON-NET calls.

This is the first alert on the new system. In the ensuing weeks you will receive full details of the conversion. New users guides and directories will be distributed at BNL by mid-November.

Holiday Trip To NYC

Arrangements have been made for a LIRR trip to the city on Wednesday, December 10, for the usual special roundtrip fare of \$2.45 per adult. In addition 26 reserved first mezzanine seats are available for the Radio City Music Hall's traditional Christmas Show and a feature film, "The Sunshine Boys." Tickets, at a cost of \$4.25 each, will be made available on a first-come, first-served basis. Showtime is at 6:30 p.m. Please note that children under age three will not be admitted. Sign up for the train trip and/or the tickets to Radio City Music Hall by calling Ruth Dimmler, 751-6342, no later than November 6.

Reminder: The reservation deadline for the November 5, railroad trip and optional tour of Lincoln Center is October 29. Call Ruth Dimmler, or Rosemary Jewett, 345-3089.

Concert Season (Continued)

man (oboe) and Peter Wolf (harpsicord), January 7; Ruth Laredo, pianist, February 4; and the Bartok String Quartet, March 2.

Admission to individual concerts is \$3.50 for adults, \$1.75 for full time students with ID, \$1.75 for persons over 65 and \$1.00 for persons under 18. Adults may purchase tickets at or before the first concert in blocks of five or more at \$2.50 each, and the BERA Concert Committee urges eligible persons to take advantage of this substantial savings.

Tickets may be purchased from the following:

M. Ledbetter	- Biology
G. Hind	- Biology
W. Siegelman	- Biology
M. Pavlova	- Medical
E. Popenoe	- Medical
B. Osgood	- Physics
D. Lazarus	- Accelerator
A. Aronson	- DAS
J. Stehn	- DAS
R. Weston	- Chemistry
P. Kupferman	- Applied Math
E. Auerbach	- Tandem
B. Laskee	- Personnel

Before The Frost . . .

If you have tomatoes nearing maturity and wonder what to do with them, the New York State Cooperative Extension has some good advice. They should be picked, then wrapped in newspaper and stored in single layers in a warm place. Check every few days to determine those ready for use.

Green tomatoes may be washed with a weak solution of disinfectant, such as household bleach, dried and wrapped in newspapers, then store in a cool area.

The Cooperative Extension also advises gardeners to pull their tomato vines and hang them in basements or garages. The fruit will ripen over a long period of time.

I.B.E.W. Meeting

Local 2230, I.B.E.W. will hold its regular monthly meeting on October 23, 1975, at 8 p.m. in the Knights of Columbus Hall, Railroad Ave, Patchogue.

There will also be an afternoon meeting at 2 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue.

On the agenda will be regular business, committee reports and the President's report.

Arrivals & Departures

Arrivals

Patricia J. Castleman	Reactor
Patricia E. Gomez	Personnel
Michael A. Iarocci	Accelerator
Joseph P. LeLaidier	Accelerator
Douglas G. Olson	Applied Science
James W. Reeves	Accelerator

Departures

Edward Dolan, Jr.	Biology
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Cafeteria Menu

Week Ending October 24, 1975

Monday, October 20	
Cream of Celery Soup	
Franks & Baked Beans	1.00
Fresh Ham & 1 veg.	1.25
Tuesday, October 21	
Cream of Chicken Soup	
Chopped Steak & 1 veg.	1.05
Chinese Pepper Steak on Rice	1.20
Wednesday, October 22	
Vegetable Beef Soup	
Broiled Chicken Liver & 1 veg.	1.00
Swiss Steak & 1 veg.	1.25
Thursday, October 23	
Puree of Mongol Soup	
Spanish Omelet & 1 veg.	1.00
Veal Milanese on Rice	1.20
Friday, October 24	
Sea Food Chowder	
Fish Cakes & Spaghetti	1.00
Pot Roast & 1 veg.	1.25

Selected Reading

- Amer. Sci. 63, September-October 1975
- Controlling technology democratically. A. Kantrowitz. 505-9
- Science 190, October 3, 1975
- Americans for energy independence: Independence: from whom? D. Shapley. 31-2
- Pauling gets Medal of Science: Thaw between scientists and White House. L.J. Carter. 32-4
- International geophysics: Science dominates politics. P.H. Abelson. 34-5
- Sci. Amer. 233, October 1975
- The debate over the hydrogen bomb. H.F. York. 106-13

Theatre Group Meeting

Theatre Group members are alerted to the next meeting slated for Monday, November 3. A change of pace and location can be expected with the meeting under the aegis of the Dew-Hughes, Denise and David. Details coming up next week.

Optician On Vacation

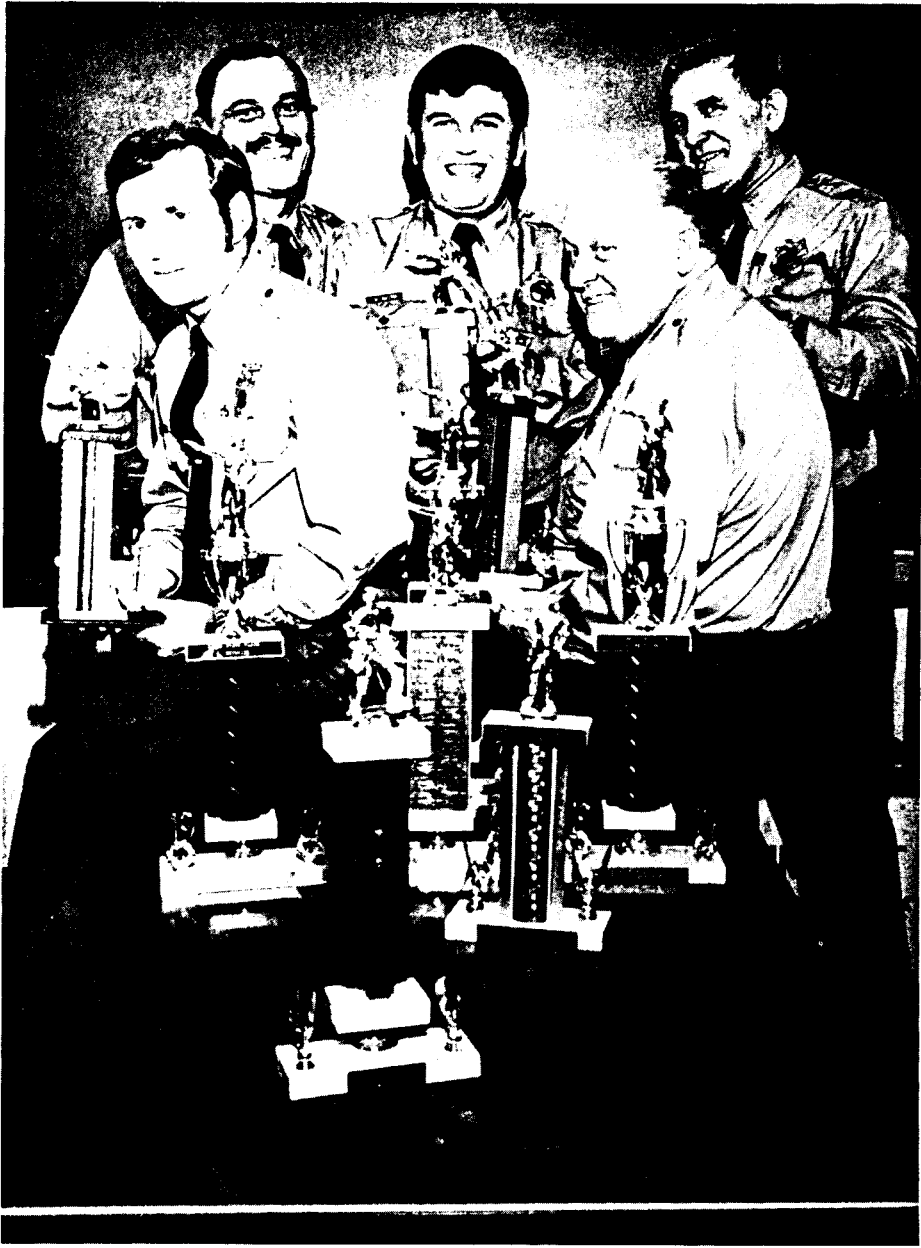
There will be no dispensing of safety glasses on October 15 and October 22 due to the optician's vacation. For emergency dispensing of plano safety glasses, contact the Health Physics & Safety Office, Ext. 4267.

Ramsey Presents Lecture



Norman F. Ramsey, one of the founders of Brookhaven and Higgins Professor of Physics at Harvard University, delivered the Victor W. Cohen Memorial Lecture on October 9, at Berkner Hall.

Police Marksmen



BNL's Police Group won a lot of awards this year - in competition with other police departments on Long Island, in the 4th Annual ERDA Pistol Competition and in departmental contests. Some members of the Police Team are from left: P.O. Thomas Iarocci, Combat Champ; Captain George Baer, Jr.; Sgt. Worth Austin, Jr., Most Improved Shooter; P.O. Joseph Conley, Bull's-eye Champ; Captain Frank Bugala. Members of the team not shown include Captain Hettrick, Sgts. Berretta and Mooney, and Police Officers Davis, Doran, Daros, McAllister and Rackett.

October Service Awards

The following employees will receive service awards during the month of October.

- Twenty-Five Years**
- Peter C. Delmonte.....Central Shops
 - Edward Hein.....Reactor
 - Warren Johnson.....Applied Science
 - Mary T. Kinsley.....Applied Science
- Twenty Years**
- Mark Q. Barton.....Accelerator
 - John J. Fuhrmann.....Mech. Engrg.
 - Edward Harrigan.....Central Shops
 - Joseph M. Hendrie.....Applied Science
 - Brita U. McGonigle.....Medical
 - Robert F. Reilly.....Plant Engrg.
 - John J. Ruscica.....Biology
 - William A. Scott.....Medical
 - Harold H. Smith.....Biology
 - James D. Smith.....Applied Science
- Ten Years**
- David B. Blackmur.....Mech. Engrg.
 - Geraldine G. Callister.....Medical
 - Richard A. Carlsen.....Appl. Math.
 - Alan S. Carroll.....Accelerator
 - Henry A. Dawson.....Plant Engrg.
 - Eugene Jablonski.....Mech. Engrg.
 - Edward McKenna.....Accelerator
 - Charles W. Neuls, Jr.....Mech. Engrg.
 - Tom Oversluizen.....Physics
 - Robert H. Quick.....Plant Engrg.
 - Robert Von Hollen.....Director's Office
 - Ching L. Wang.....Accelerator
 - Richard L. Witkover.....Accelerator

Sickle Cell Program Reminder

The Long Island Sickle Cell Project will conduct a program at Brookhaven on Tuesday, October 21, in the Berkner Hall Auditorium, from 11:30 a.m. to approximately 12:30 p.m. All interested employees are invited. Call Ext. 2113 for further information.

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Bowling News

Cathy Van Noy

Pink League

The Swingers are now in first place with the "Gutter Getters" in second. J. Weber bowled a nice game of 189 and L. Boyd 185. High gross pot was won by L. Boyd.

Red League

A great night for E. Meier who missed a 600 scratch by only eight pins. 200 games were rolled by W. Kollmer 224, E. Sperry 215, E. Meier 213 and 213. C. Bohnenblusch 212, R. Nelson 212, R. Adams 206 and R. Meier 202.

Black "N" Blue League

Congratulations to Ellen Jacobson with a gross series of 678 which entitles her to the 666 club award. This was also the first time that Ellen beat her husband, Lew. High games for the night went to Don Schug 213, Debbie Antonio 176, Ellen Jacobson 164, 163, Renee Flack 162. High Gross pots were won by Don Schug 262 gross and Ellen Jacobson 236 gross.

Green League

After five weeks of bowling, the "Got-A-Hit-Ums" seem to be holding the first place lead with a sixteen point lead. 200 games for the night were rolled by Lew Jacobson 201 and Fred Stahman 200.

Purple and White League

The league is in need of a female bowler. If you are interested, please contact Frank Short or Jon Scott.

BGA Golf

The fifth golf tournament of the season was held at the Spring Lake Golf Course on Friday, October 10. Twenty-six golfers participated in the tournament and the get-together later.

A 78, best round of the day and one of the best of the year, was turned in by George Korhut. A pair of net 71's were recorded by Marshall Bull and Les Lawrence. The closest to the hole contest was held on the 13th hole and was won by Tom Holmquist. Peter Bond hit the best drive on the 14th hole and won the longest drive contest.

Tickets At Sales Office

The BERA Sales & Services Office has the following tickets remaining for the months of October, November and December.

Metropolitan Opera		
Fri. Oct. 24	LaGioconda	2 tickets
Wed. Nov. 19	LaGioconda	4 tickets
Thu. Nov. 27	LaGioconda	2 tickets
Sat. Dec. 6	Elektra	4 tickets
Thu. Dec. 11	Cosi Fan Tutte	2 tickets
Wed. Dec. 17	Un Balla in Maschera	4 tickets
Mon. Dec. 22	Il Trittico	6 tickets
Thu. Dec. 25	Hansel & Gretel	2 tickets
Sat. Dec. 27	Il Trittico	2 tickets
Tue. Dec. 30	Cosi Fan Tutte	4 tickets
Islanders Hockey		
Sat. Nov. 1	Washington	2 tickets
Tue. Nov. 4	California	4 tickets
Tue. Dec. 9	Minnesota	4 tickets
Jets Football		
Sun. Oct. 26	Colts	10 tickets
Sun. Nov. 23	Cardinals	2 tickets

The BERA Sales & Services Office is open between the hours of 7:30 a.m. to 2:30 p.m. each work day. The telephone extension is 3347.

Soccer

The indoor season will begin on Friday, October 17, with orientation games. League play will start in about two weeks. The time will be every Friday from 5 p.m. to 7:30 p.m. All employees interested in playing are invited to participate.

Race Against The Wind

Pedaling against strong winds, 13 dedicated cyclists completed the 17.5-mile bike race last Sunday. Jerry Kinne fired the starting gun at 10:03 a.m. and Doug Steele was the first to return 49 minutes and 20 seconds later.

The BNL Radio Club kept radio communication open between the starting line and the truck which followed the bikers.

The Suffolk County Police also patrolled the route which encircled the Lab on public roads.

The race was open to Brookhaven employees, their families and guests. Medals were given to the first three places in the junior category and certificates to the other entrants.

Junior Men		
1	Doug Steele	49:20
2	Phil Watson	49:22
3	Fred Blume	51:07
4	Louis Andors	51:08
5	Greg Jordan	51:21
6	Tom Kinne	60:47
7	Darryl Isaac	70:01
Senior Men		
1	Doug Jordan	49:27
2	Fred Usak	51:15
3	Bill Piel	62:45
4	Mark Carter	67:45
Senior Women		
1	Lucy Kinne	52:16
Veteran Men		
1	Gerry Morgan	51:15

At The Finish Line



Gus Prince, a physicist in DAS, placed a close second in the 7.6-mile race held to mark the start of the Three Village Bicentennial. His official time was 46:22. The winner clocked in at 45 min. Other BNL runners were Bill Piel, Bob Bari and Cornell Cornish, ERDA.

Football Notes

by Jack Brennan

The Old Timers are the 1975 football champs, winding up with an unbeaten record. Defense was the strong point for the Old Timers last week as they threw two shutouts against Roga and the Chickens. The Roga score was 14-0 as Walt Reams and Pete Heotis took in the Old Timers T.D.'s. The Old Timers beat the Chickens 27-0 as Frank Martin had a 3-T.D. night. Shelly Frei was the Old Timer passer.

The Slow Pokes tied for second place by beating Roga 20-18 and the Chickens 45-7. In the Slow Pokes - Roga game, T.D.'s were by Oldham, Nordstrom and Johnson, E.P. Thomas and Picinich of the Slow Pokes; Daniels, James and Scott of Roga. In the Slow Pokes - Chickens game, T.D.'s were by Thomas, Oldham, Prack, Donaldson, Picinich, Murdter and Atkins of the Slow Pokes; Lowell of the Chickens.

Final Standings

	Wins	Losses
Old Timers	6	0
Roga	3	3
Slow Pokes	3	3
Chickens	0	6

Play-off results will be announced next week.

Classified Advertisements

Placement Notices

Each week the Personnel Office lists personnel placement requisitions, currently being processed. The purpose of these listings is, first, to give notice of all non-scientific staff positions being filled and, second, to give employees an opportunity to request consideration for themselves through the Personnel Office. In filling vacancies, the Laboratory's objective is to give first consideration to present employees, as follows: employees within the immediate group having the vacancy, employees within the department or division, employees within the Laboratory as a whole.

For further information regarding a placement notice, or to request consideration for an available position, contact Supervisor, Personnel Placement & Development, extension 2874 or 2882.

222. NUCLEAR ENGINEERING ASSOCIATE - Minimum BS degree or equivalent in nuclear engineering/computer science with experience in development and testing of programs for engineering and scientific applications required. Reactor Safety Division. Department of Applied Science.

223. TECHNICIAN - AAS degree or equivalent in mechanical technology with experience in construction and repair of high temperature/high pressure fluid systems and electromechanical monitoring devices. Knowledge of physical and analytical chemistry desirable. Coal Hydroforming Program. Department of Applied Science.

224. SECRETARY - AAS degree or equivalent in secretarial science with steno and technical typing skills required. Department of Applied Science.

225. TECHNICAL SPECIALIST - BS degree or equivalent in biology and experience in mammalian tissue culture. Knowledge of cytogenetics desirable. Medical Department.

226. TECHNICAL SPECIALIST - BS degree or equivalent in biology with experience in experimental hematology and tissue culture. Medical Department.

227. LABORATORY CUSTODIAN - Plant Engineering Division. Application Deadline: October 28, 1975.

228. RESIDENCE CUSTODIAN - Staff Services Division. Application Deadline: October 28, 1975.

229. COMPUTER OPERATOR - Seeking experience on CDC 6600. Shift work. Applied Mathematics Department.

230. TECHNICIAN - AAS degree or equivalent in electronics technology with 2-3 years' experience. Knowledge of computer operations desirable. Main Control Room. Accelerator Department.

231. TECHNICIAN - AAS degree or equivalent in electrical technology plus 2-3 years' electromechanical experience. Possible shift work. Power Transmission Project. Accelerator Department.

Autos & Auto Supplies

1962 FORD PICKUP - Rebuilt engine, all new brake system. \$300. Ron, 473-8995 after 6.

SNOW TIRE - D78-14, good rubber. \$8. Mike, Ext. 3050.

71 PLYMOUTH - Satellite custom station wagon, ac, 68,000 mi. \$1700. 286-8957 after 5.

WHEELS - 14x6 Fairlane, Falcon, Torino 67-76, new valves. 2 for \$16. Paul, Ext. 3277, 298-4985.

2 TIRES - Dunlop 10-16-5, 8 ply, like new. \$60. Dave, Ext. 3762.

69 FORD RANCH WAGON - 302 cu in V8, ps/ac, good cond. Steve, Ext. 4308.

73 CAMARO - Brown, good cond, new steel radial tires, 31,000 mi. must see. \$2850. Bob DiDio, 286-0372.

74 PEUGEOT - 504, gas, 13,000 mi, mint cond. \$4400. Gil, 924-3283.

TIRES - (3) 685-15"; (3) 645-13"; we have what you want. 475-0144 after 6.

65 CHEVROLET - 2 dr hdtp, excel running cond, auto, ps, radio. \$495. 588-4733 after 8.

70 DODGE CHALLENGER - 73 400 cu in engine & trans, new posi rear end, battery, chrome rims, wide ovals, new snows. Asking \$1800. H. Bumstead, Ext. 4605. 363-6292.

69 DODGE DART - Black w/black vinyl top, G-60's, slotted rims, torsion bar suspension, air shocks, shakles, 340, 4 spd. \$1050. 732-6161.

65 PLYMOUTH WAGON - 318 V8, auto, good transportation. \$325. Ken, Ext. 4003.

69 CADILLAC - Good cond, ps/pb, r&h, elec windows, ac, tan & white. \$1300. Ext. 3085.

TIRE - E78-14, new. \$20 firm. 281-6130 eves.

70 DODGE CHALLENGER - 6 cyl, auto. \$1300. 727-7515 eves.

2 TIRES - 9.50-16.5, used, 8 ply rating. \$10. Ext. 2043.

ALUM MANIFOLD - Edelbrock streetmaster, 600 Holley carb. \$100. Bob, 281-3149.

ASSORTED RIMS - O. Booker, Ext. 4719.

TIRES - Recaps & used, most sizes, extra rims available. Ken, 289-8212 eves, no Lab calls!

67 CHEVY CAMARO - 2 dr, 6 cyl standard, good gas & oil, tires, body excel, inspect Sept. \$550. 363-7250 after 6:30.

70 FORD LTD - Brougham, ac, steel belted radials, \$1100. Sipe, Ext. 3559, 298-4592 after 6.

TRAILER HITCH - For station wagon, Class II. \$7. Ext. 2485.

65 VOLKS SQUAREBACK - Runs, needs clutch, good for parts, \$50. John, Ext. 2242, 286-1348.

65 RAMBLER WAGON - 6 cyl auto. \$195. Rich, 286-1873.

70 CHEVY NOVA - 2 dr, 307 sm V8, ps, radio, auto, heater, vinyl top, 45,000 mi, excel cond. Asking \$1600. Ext. 4715, 281-4475 after 5.

72 PONTIAC - Luxury Lemans, 2 dr hdtp, light blue, white vinyl roof, ac, bucket seats, console, rally wheels, fully equipped, excel cond., must sell. Kathy, Ext. 2496, 331-9139 after 6.

70 CHEVY IMPALA - 4 dr, V8, auto, ps, ac. \$850. G. Wall, Ext. 4660.

Boats & Marine Supplies

OUTBOARD ENGINE - 1973, 50 hp Mercury manual, new power head. \$500. Bob, 281-3149.

2 CLAM RAKE HEADS - (1) 24 tooth, 4" teeth, \$25; (1) 22 tooth, 4" teeth, \$15. Ext. 2043.

16' FABUGLASS - 80 hp Evinrude motor, Cox trailer, excel cond. \$1175. Don, Ext. 2356.

30' RICHARDSON CLASSIC - 1929, new, mahog bottom, ribs, floors, engine beds, inside bard, 4 yr old chy ace. \$1400. Paul, Ext. 3277.

19' DORY - Oak, cedar, copper, outboard well, retractable rudder, could be converted to sail, in water needs paint. \$125. Paul, Ext. 3277.

MAST - Aluminum, for Corsair, no fittings. \$25. Pete, 744-3807.

SAILBOAT - 20', sleeps 2, hull rebuilt in 73, cradel trailer, must sell, best offer over \$600. Pete, 744-3807.

LOBSTER WORKBOAT - 26'x8'x1', fiberglass bottom & decks, outboard powered, built in 1973. \$1200 or best offer. Pete, 744-3807.

PROPELLER - 14" pitch, 15" diameter, 1" shaft, right hand, \$10; clam rakes, 20 tooth, mud, \$15; 22 tooth, 3", \$20. Pete, 744-3807.

GAS TANK - Monel, baffled, 12 gal, \$10; single lever morse control w/cable. \$10. Pete, 744-3807.

34 BALTZER - Big engines, super boat, camper back, fish in it, great for the family. 331-1718.

ENGINES - 71 Evinrude, 40 hp, \$400; 64 Evinrude, 40 hp, \$200; 65 Johnson, 40 hp, elec start, \$250. 941-4069.

23' PEMBROKE - Sport fisherman, extras, excel cond. Asking \$1650. Laird, Ext. 4068, 298-5092.

Miscellaneous

GAS RANGE - 30", bottle, "Caloric", almost new, gold color. Asking \$250, cost \$325. 585-7094 after 5.

MEN'S JACKET - Brown leather, size 44 long, zip out lining, excel cond. \$50. 744-3567 after 5:30.

HOT WATER TANK - 20 gal, \$5; (4) 7' steel fence stakes, \$1 each. 286-1201.

BABY CRIB - \$15; wicker dressing table, \$10, good cond. 286-1201.

FREE KITTENS - For adoption, 9 weeks old, males & females. 289-5664.

75 COX POP UP CAMPER - Sleeps 5, propane stove, sink. \$1150. Kathy, 666-7238.

TENT - Attaches to side of VW van or free stands, good cond. \$100 firm. 473-9180.

MEN'S RAINCOAT - Black, size 46, zip-out lining, worn once. \$50. R. Williams, Ext. 4207/4259.

POLAROID CAMERA - Colorpack II, \$10. R. Williams, Ext. 4207/4259.

JVC VN-5101 - Quadraphonic decoder/rear amplifier, 22w/ch rms. \$90. R. Williams, Ext. 4207/4259.

CB RADIO - Lafayette HB-525, brand new. \$150. John, Ext. 3354.

FIREPLACE SCREEN - & poker, \$15. Ext. 4122, 286-8512.

CRIB - Colonial maple, like new, cost \$110, sell \$50. Saxon, Ext. 3435.

WOOD WINDOW - 3 new colonial windows, 1 picture, 2 rectangular. Sell \$100, cost \$190. Don, Ext. 2356.

BABY CARRIAGE - Excel cond, \$15; tandem bicycle, new, many extras, \$150. Dan, 277-1284.

RUG SHAMPOOER - Floor polisher, Sears Kenmore, 3 spds, w/accessories & oooklet, like new. \$25. Ext. 4240, 286-0295.

GIRL'S BIKE - Schwinn 20", repainted, good cond. \$16. 286-3509.

VACUUM - Hoover celebrity, brand new, never used. \$75. Jeanne Weber, Ext. 2003, 472-0086 after 4.

BABY HIGH CHAIR - Very good cond. \$8. 281-1559.

PICTURE - Cool of the Country, Paul Kujal, 36 1/2 x 38 1/2. \$10; Brother hair dryer, \$3. Irene Merritt, 289-5126.

ALBERTA SPRUCES - 1 1/2', \$3 each; American holly, 3', \$4 each; potted hydrangeas, \$2 each. John, 744-5867 after 6.

COPPER LUSTER - Antiques, teapot w/eagle handle, \$37; pitcher, \$30; cup and saucer, \$17; small dishes, \$10. 265-1072.

8" RADIAL SAW - Sears best, stand, dust collector, many extras, excel cond. \$175. Paul, Ext. 3277, 298-4985.

FURNITURE - Chair, \$15; desk, \$15, couch, \$15; old steamer trunk, \$15. 929-4681.

CAMERA - Nikon F, Tn finder, F 1.4 lens, 1974 model, like new. Asking \$400, or best offer. Mike, 878-2486.

MEN'S 10 SPEED - Gitane interclub bicycle w/blue 21 1/2" frame, many excel features, A1 cond. \$185. Josh, 286-8724 after 3.

SURF BOARD - Rafter Rassmussen, custom rounded pintail winger, 7'0". \$65. 744-3807.

TELEVISIONS - Motorola 19" B&W table model, \$40; Zenith B&W table model, \$25; headboard, black & gold kingsize, \$30; satin drapes, antique green & white, cover 10' wall; chandelier, 10-arm, \$50; sofa bed, rolls out from bottom to sleep 2, Danish modern. \$125. 581-9199.

BOY'S BICYCLE - 20", 3 spd, like new. \$40. Matko, Ext. 4362.

MEN'S WATCH - Seiko w/gold plated bracelet, new, automatic, alarm, day & date. \$95, retail \$175. Matko, Ext. 4362.

TRANSFORMER SET UP - 110-220V, 350w, for European small household appliances. \$20. Matko, Ext. 4362.

SHIRTS - Men's, blue & brown, med, excel cond. \$10 for 2. Susan, Ext. 3609.

BAR - Woodgrain formica w/leatherette trim, 76" long, 3 bar stools, black seat w/chrome legs, wooden back. \$95. Marion, Ext. 2902.

SOFA BED - Good wood frame, opens to double bed, mattress. \$15. 727-1617.

1940'S RADIO - Sparton, w/police, short wave & 78 auto record player, solid mahog, but painted. \$25 firm. Ext. 3429, 727-1617.

PLUMBER'S PIPE VISE - On stand, \$20; long handled water pump, old, \$25. 727-1617.

CARRIAGE MATTRESS - 14 3/4" x 30", \$4; go kart, no motor, \$4; 2 den chairs, orange vinyl, \$3 each. 289-1754.

TRUMPET - Blessing standard w/hard & soft case, mute, music books, excel cond. \$75. Lou, Ext. 4605.

BIKES - 26" boy's, \$15; girl's, \$10. 589-4874 after 6.

WHIRLPOOL WASHER - \$35; hotpoint dryer, \$25; child's table & chairs, \$8; 7' pool table top, \$15. S.T. Miller, 744-9085.

DINING RM TABLE - & 6 chairs, w/pad, extends to 6', also glass top matching color server. \$140. 363-6845.

REFRIGERATOR - 17 cu ft Sears, 10 yrs old, \$35; Lady Kenmore elec 2 oven stove w/rotisserie, \$35. 363-6845.

UNERTL 24X - Spotting scope w/freeland stand & cover. \$75. John, Ext. 3354.

GE WASHING MACHINE - 14 lb capacity, copper-tone, very good cond. Asking \$85. B. Ponte, 234-0773.

ELEC GUITAR - & amp, has 15" speaker & 2 channels, good cond. 289-0753.

2 CHILD'S STROLLERS - Good cond w/wind breakers. \$15 each. 289-1242 after 5.

JUDO UNIFORM - New, \$20 firm; ice skates, child's size 3 & 11, \$3 each; warming tray, \$8; stairway iron rail, \$10. 281-6130 eves.

LUGGAGE - Samsonite, 5 piece matched set, good cond. \$60. 289-0413.

GAS RANGE - 4 burner w/oven timer. \$30. 281-5827 after 6.

SINGLE BED - Complete, \$15; large oval mirror, \$15; sm brown table, \$5. 744-3784.

STUDIO COUCH - Good cond. \$15. John, Ext. 2242, 286-1348.

SHOT GUN - 12 ga, semi-automatic, Franchi lightweight. \$165. 924-3303.

BIKES - Girl's 24" single spd, \$15; 26" 3 spd, \$25, good cond; 4 basketballs, good shape, \$1-\$5. Goldberg, 473-6063.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

For Sale

SHOREHAM - Cape cod, frame & brick, living rm w/fireplace, dining, den, 3 bedrm, kitchen, 2 baths, center hall, 2-car garage, 1/2 acre, beach rights, many extras. \$60,000. 744-8949.

CATSKILLS - Delaware Co, 10 acres, panoramic view, spring, open & wooded, good hunting, & fishing, will divide. \$8900. Pete, Ext. 3297, 586-3579.

BROOKHAVEN - Colonial 4 bedrm, 2 1/2 baths, 2-car garage, full basement, fireplace in large living rm, formal dining, country kitchen, den, 3/4 acre plot, Middle Island schools. \$51,000. 286-0158.

NORTH SHORE - 3 bedrm, 1 1/2 baths, partially finished cellar, knotty pine interior, fireplace, 20'x30' garage w/pit, 23,000 btu ac, appliances, 15 min to Lab, low, low taxes. 744-3312.

LAKE RONKONKOMA - Wooded 1/2 acre, large 4 bedrm ranch, large attic, garage, 1 1/2 baths, fenced, desirable. Sachem #5. George, 588-6352.

MILLER PLACE - 3 bedrm ranch, 2 baths, eat-in kitchen, dining, living, full basement, garage, 150x100 corner. \$39,500. 744-2821.

CUTCHOGUE - 1 acre building lot, water view, beach rights, near schools and shopping. Asking \$18,500. G. Laird Stubbings, Ext. 4068, 298-5092.

WEST ISLIP - 4 bedrms, 3 1/2 baths, 2 dens, play room, living, dining, eat-in-kitchen, 3-car garage, heated, in-ground pool, w/w carpeting, underground sprinkler system. \$59,900. Terry, 878-0130, 878-2215.

STRATHMORE RIDGE - Townhouse, 3 bedrm, 1 1/2 baths, upgraded carpet, all appliances, enclosed patio, storeroom, expansion attic, many extras. \$35,000. 924-8698.

For Rent

ROCKY POINT - 1 bedrm studio apt, large living rm, near LI Sound, business couple preferred, no pets. 744-9724 or 543-1399.

MEDFORD - 2 bedrm apt, garage, back yard, all appliances incl washer, dryer, dishwasher, 2 months security required, 10 min to Lab. Ext. 3369.

1 BEDRM APT - Large living rm, fireplace, sunroof, ac, kitchen, bath, priv entrance, approximately 15 min to Lab, avail immediately. 928-8071.

FURNISHED RM - Private entrance, kitchen, bath. 585-3794, Ext. 3800.

TO SHARE - 5 bedrm house in Medford, 7 mi to Lab. \$30/wk + 1/2 util. Jack, Ext. 4255, 289-6708.

APT - 2 bedrm, eat-in-kitchen. \$225/month, heat included. Terry, 878-0130, 878-2215.

FURNISHED ROOM - Kitchen priv, private entrance. Ext. 3800, 583-3794.

WADING RIVER - 3 bedrm house, avail Sept 2, beach rights, \$280 + util. 488-7135 after 3.

BROOKHAVEN - 7 room furnished house avail Jan 1, 1976 for 6-7 months. 286-3851 after 6.

ROCKY POINT - 1 bedrm studio apt, large living rm, near LI Sound, couple or 1 person, no pets. 744-9724.

Wanted

SOUP & BEAN LABELS - Campbell's, send to F. Chandler, Bldg. T-89.

BOY SCOUT UNIFORM - Size 14, good cond. 363-6845.

TO RENT - 1 bedrm apt for couple in Patchogue, from Nov. Ext. 3221.

MUSIC STAND - 744-7170.

SUN VISORS - For 73 Vega & 65 Mustang. Saxon, Ext. 3435.

MEN & WOMEN - New members for JFK Chapter, Friends of Maryhaven, school for exceptional children. Rose Klein, 473-7495.

OLD LAWN MOWER - Sears 22", cond of engine not important. Peter, Ext. 2528.

HOME FOR SMALL SHEP - Husky dog, about 3 yrs old, excel watchdog, good companion. I have too many dogs! Ext. 2528, 286-3623.

REPAIR MANUAL - For 1971 Simca 1204 Chrysler, front wheel drive. Joe Savino, Ext. 3284, 363-6673.

LOVING HOME - For darling puppies, 6 weeks old, Free! 654-1044.

HOME - For large lovable affectionate male dog. Ext. 4451, 589-3269.

HANDBALL PLAYERS - Interested in playing, 4-wall in private club w/2 courts & saunas. Harvey, Ext. 3995/3247.

COMPUTING REVIEWS - Several copies borrowed from Kurt Fuchel, Ext. 4116.

BABYSITTER - For 2 1/2 yr old, 5 days/wk incl weekend for shift worker. N Patchogue/Bellport area, leave message. Pauline, Ext. 2238.

SOMEONE - To give crash review course in accounting for civil exam. Schmitt, 286-0913.

CYCLISTS - For American Cancer Society bik-a-thon. Larry Fogel, Ext. 3064.

Car Pools

HOLTSVILLE - Waverly Ave, driver wishes to join or form car pool. Jim Lynch, Ext. 4510.

PORT JEFFERSON - Want to form or join car pool, regular working hours 8:30 - 5. Ru-fang Chen, Ext. 3691.

EAST ISLIP - 2-man car pool from E. Islip desires others. Ext. 4532.

E. SETAUKET - Univ apt, Ward Melville HS area, car pool desires other members. Les, Ext. 4148.

Services

LEARN TO SEW - Will teach on your machine if reasonably local. \$3/hr. 286-8229.

SEWING - Alterations, reasonable rates, your home or mine. 286-8229.

ART LESSONS - Private \$3.50/hour, small groups \$2.50/hr, emphasis on drawing & watercolors, children or adults. 286-8229.

YARD SALE - Sat Oct 18, 10 am, Brown's Lane, Bellport, turn south at caution light. Porch swing, rugs, misc.

GIANT GARAGE SALE - Sat-Sun Oct 18-19, 10-4:30, TV, radio, piano, books, mag, household items, much more, 11 Maryanne Ave, Port Jeff Sta.

TREE REMOVAL - Chain saw work, stump removal, experienced, free estimates, hauling, cord wood. Ken, 289-8212 eves.

REPLACE OLD CANE SEATS - Pressed caning only. 363-6597.

FISHERMAN - Do you want your catch deliciously smoked? 744-9411.

DIAL A BAND - 2 piece, for small parties, contemp music. 588-4116, 475-8724.

PET PORTRAITS - In pastel from color photos. Very easy. Bob, Ext. 4411, 727-2346 after 6.

WOMAN AVAIL HOUSE CLEANING - Part or full time, weekly, fair rates. 286-1513.

OIL BURNER CLEANING - Complete vacuum cleaning & set up of burner for most efficient heating. \$25. Al 286-8374.

ALTERATIONS & HEMS - Reasonable rates. Sharon, Ext. 3334, 878-2591 after 6.

WILL BABYSIT - My home daily, part or full time, reasonable rates, pleasant surroundings. Mary 286-1513.

PAINTING - Interior & exterior, experienced. Jerry, 475-5591 before 4.

TENNIS RAQUETS - Restrung, regripped, reasonable. Barry 289-0791, Allen, Ext. 3049.

CHILD CARE - Will care for your child in my home, located near Lab, full or part time, lunch & snacks incl. 924-8871.

DOG SITTER - In my home, refs avail, for further info call 286-8512.

VW MECHANIC - Dealer trained, lowest prices, guaranteed work. Fred, 924-3556.

AUTO REPAIRS - Good rate, will fix almost anything. Ray, 878-2486.

YARD SALE - Antiques, furniture, high chair, bric-a-brac, lot of goodies, Fri-Sun, Oct 17-19, 4 Atlantic St, off Carmen Ave, Brookhaven Hamlet.

ASPHALT PAVING - Bob, 475-4382.

GARAGE SALE - Sat, Oct 17, 10-4, several families, lots of goodies, 134 Howard St., Port Jeff Sta.

FIREWOOD - \$70 seasoned cord, \$60 unseasoned, \$40 unsplit. 924-4693.

HUGE GARAGE SALE - Oct 17-19, 9-5, rain date Oct 24-6, Long Island Ave. north of LIE, Yaphank, 924-3267.

Classified Ad Policy

Deadline is 12 noon Monday for publication Friday of the same week.

1. The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees.
2. All items for sale or rent must be the advertiser's property.
3. Ads for material acquired for resale in association with a full or part-time business cannot be accepted.
4. Firearms offered for sale or trade may not be brought on site.

5. Ads not carried because of space restrictions will be held for publication in the next issue.
6. Ads are run only once and must be resubmitted if they are to be repeated.
7. Ads should be restricted to 20 words or less and typed or printed on the form provided, and must bear the employees signature.

- For Sale: Auto & Auto Supplies
 For Sale: Boats & Marine Supplies
 For Sale: Miscellaneous

- Wanted
 Carpools
 Lost & Found
 Services

Check the heading applying to your ad. Print or type your ad in 20 words or less.

Ads concerning property for sale or rent cannot be accepted on this form. Special Real Estate Ad forms are available at the Office of the Brookhaven Bulletin, Room 111, 40 Brookhaven Avenue.

(Name & Phone No. To Call)

Employee's Signature _____ Life No. _____ Ext. _____

Send to: Brookhaven Bulletin, Building 460, 40 Brookhaven Avenue [Ext. 2345]

EMERGENCY PHONE NUMBERS

Medical 2222
Fire 3333
Police 4444