PROPERTY SURVEY IS BEGUN AT NIH

It is difficult to imagine the amount of supplies and equipment necessary to run a research institution like NIH. It is even more difficult to imagine the enormous job of keeping track of this equipment which at present exceeds 30,000 pieces of scientific apparatus at Bethesda.

On July 28 a survey of property and supply management procedures was begun at NIH. Cooperating in this survey are experts from the Federal Security Agency, Public Health Service, General Services Administration, and the General Accounting Office. These men are not here to take inventory, but rather to make their special skills available to us so we can determine whether we are using the best and most effective methods for the purchase, supply, storage, and control of equipment and supplies.

Their help comes at a most opportune time. We are in the middle of buying great amounts of equipment for the Clinical Center and are beginning to set up stockroom procedures for the Center. These experts, who recently completed a similar survey of property management at St. Elizabeths Hospital, will assist us in simplifying and developing methods appropriate to our research needs.

They are also expected to give us help in designing a simple system for controlling and accounting for property assigned to individuals at NIH. Adequate control is difficult to attain because it requires some time, cost, and paper work. Incidentally, under Government law and regulations, we are guardians of all equipment we use and must be held personally responsible for its protection and utilization.

(See Property Survey, Page 4)

24 MEMBERS OF GLASSWARE SECTION RECEIVE GROUP AWARD OF $2,400

In ceremonies held recently, 24 members of the Glassware Section, Laboratory Aids Branch, received a group award of $2,400 for outstanding efficiency in performance of their duties.

This is the largest amount of money ever given for a single award under the Federal Security Agency Incentive Awards Program. It is also the first time that a group of employees working as a team has been rewarded for superior achievement.

The 24 NIH employees perform a function vital to the successful and efficient conduct of medical research. They clean, sterilize, inspect, plug, wrap, and distribute all kinds of glassware, as well as repairing chipped and cracked glass.

During the last two months of 1951, for example, 17,000 petri dishes, 132,000 test tubes, 12,000 beakers, 13,000 flasks, and 74,000 pipettes were prepared by the Glassware Section and called for by the laboratories.

With no additional staff, the Glassware Section increased its work output by more than 20 percent during the last half of 1951 as compared with the same period during 1950.

Dr. W. H. Sebrell, jr., in presenting the award said, "I am pleased to be able to reward each of you for working so well for and with NIH."

The Role of Isotopes in Dental Research

No. 76 in a Series

Since about 1940, radioisotopes have been employed to demonstrate that teeth absorb substances such as phosphorus, sodium, and iodine in the form of their inorganic salts. The work has thrown light on the fundamental processes by which teeth are calcified before eruption.

One of the NIDR laboratories at the U. S. Public Health Service Hospital, Staten Island, New York, uses radioactive isotopes in investigations of dental and oral diseases. The principal investigator at this fully equipped radiobiology laboratory is Dr. Herbert J. Bartelstone.

Investigations here have shown that an iodide can penetrate through the whole tooth in humans and animals. Areas of decay and erosion of the enamel show increase in permeability which extends to the underlying dentin.

The presence of I-131 in the various structures of the teeth is determined by radioautographic techniques. These techniques are based on the phenomenon that the radiation from the radioactive isotopes alter the energy state of the silver bromide crystals so as to produce a latent image similar to the effect of light photons on emulsions.

A 50-micra section is cut from a fully calcified tooth containing radioactive iodine. The section is then covered with a thin photographic emulsion and placed in a light tight container for exposure. After several days or weeks the emulsion is developed and the presence of blackened grains indicates the distribution of I-131. The radioautograph remains superimposed over the tooth section and the distribution of developed grains can be correlated with the structures in the section under the microscope.

I-131 placed on the surface of intact enamel of live cats is found in the thyroid gland by placing a Geiger counter over the neck and recording the emanations from the gland. This demonstrates that I-131 passes through the enamel and dentin and into the blood stream. Thus enamel can no longer be considered an impermeable structure.

The fact that substances can enter the mature tooth from both the saliva and blood stream indicates that the internal environment of the tooth can be altered and may have some bearing on the cause of decay as well as resistance to it.

Here and There

Landmarks

NIH highway entrances were enhanced recently by the erection of modernistic white signs with blue shadow lettering. These new markers, bearing the insignia of the Public Health Service, were designed by Walter Ashe of SRB's Medical Arts Section.

Resignation

Miss Lois Gordner, former Associate Chief of the Nursing Department, Clinical Center, resigned effective August 1. From 1949 until February 1952, Miss Gordner was assigned as nurse consultant to the Research Facilities Planning Branch, where she was active in the planning phase of the Clinical Center.

She is now on the staff of PHS's Division of International Health as Nurse Associate in the Education and Training Branch. Miss Gordner will be responsible for all nurse trainees from foreign countries and for program planning for foreign students in other health fields.

European Trip


Retirement

After 33 years of Federal service, Mrs. Eva F. Hastings retired July 31. She came to NIH in July 1948 as fiscal accountant in the Financial Management Branch.

Mrs. Hastings transferred to NIH after 12 years service with the Social Security Administration.

Appointment

Dr. Paul A. Neal, Chief of NIAMD's Laboratory of Physical Biology, was recently appointed NIH representative on the new PHS Committee on Labeling of Chemical Products.
PHOTOGRAPHY DEMANDS

SKILL AND ARTISTRY

Being an NIH photographer demands skill, patience, an artistic sense, and lots of plain hard work. Roy Perry and his nine assistants of the Photographic Section, Scientific Reports Branch, can vouch for this.

Their duties are varied. In addition to taking pictures such as the ones that appear regularly in the NIH Record, the Section makes lantern slides; photostats; photographs dealing with clinical evidence and scientific techniques for use in exhibits and publications; copies of charts; and motion pictures, including footage for television programs.

These services are given on the basis of requisitions sent to the Section. Photographers are assigned according to work loads and their own special skill. Some of the men are specialists in motion picture work--others, in photomicrographs, exhibits, or color transparencies. Last year the Section filled 3,692 requests for services which averaged two hours per job, exclusive of time spent in consultation, preparation of special set-ups, checking photographic equipment, and clerical work.

Taking pictures in laboratories presents some problems. Good lighting is often difficult to obtain, and backgrounds are sometimes poor. When possible, the Section prefers to take pictures in its own studio where the best combination of lighting and background--hence, the best picture--can be assured.

The Photographic Section also carries on some interesting activities in the motion picture field. They are making a film history of the Clinical Center which has grown with the structure. They are also experimenting with motion picture sound--tape recordings synchronized with the film and actual sound tracks. At the present time, they are editing film on tropical diseases taken by NIM's Dr. Burch in Liberia.

A hectic portion of the Section's time is devoted to photostating and the making of lantern slides. Incidentally, the Section is experimenting with a new process for lantern slides which may save 20 percent of production time.

NIH SOFTBALL TEAM

HAS WINNING STREAK

In spite of the hot weather, the NIH Softball Team keeps chalking up victories. The latest victim (at this pre-publication moment) is the Naval Medical All-stars, who lost to us by a score of 3-5 on July 31.

This brings the season's total of NIH wins to 23, with only 2 losses. These losses were in the beginning of the season when the team was experimenting to find out the best position for each man to play. It looks like they came up with the winning combination.

Their record is particularly outstanding in view of the teams that NIH has played. They've been matched against some of the best competition that the metropolitan area can offer and have won all games played outside their league.

In the District Athletic League, they are now leading in the second half. It is quite possible that they may win the championship and the first trophy ever captured by an NIH team.

The team would like to have a few more NIH spectators at their games to cheer them on to the championship. Notices of games are posted in all buildings, so come on out and support your team.

Incidentally, next spring NIH hopes to have three new diamonds on its campus. They will be located near Building 13.
GARDEN PRIZE WINNERS
CHosen in close race

When judges George Archambault and Dr. John E. Dunn visited the garden plots near T-6, they found they had a difficult time in choosing the prize-winning gardens.

After much deliberation, they finally chose garden plot No. 17 as winner of the $10 first prize awarded by the NIH Garden Committee. No. 17 turned out to belong to Dr. Victor H. Haas. Dr. Benjamin Highman won the second prize of $5 for his excellent garden.

Giving the winning gardens a close race were gardens belonging to Clarence May, Mack Eckenrode, Dorothy G. Mathews, LaVelle Ott, Ken Brown, Arthur Washington, and Drs. F. A. Arnold, J. H. Baxter, Dale C. Cameron, George Luttermoser, N. B. McCullough, and W. T. S. Thorp.

HAMSTER ELECTIONS

The Hamsters have elected officers for the 1952-53 season. Chairman is Ervin Liljegren; Secretary, Ruth Gorin; Treasurer, Hazel Rea; and Caretaker, Dr. Byron Olson.

New members of the Executive Board are John Clausen, Phil Janus, and Betty Wiehle.

PASSBOOKS WANTED

At the present time, the NIH Credit Union is having an annual audit of its books. Some members have not yet brought their passbooks to the Credit Union for verification in connection with the audit. If you have forgotten, please bring your passbook to the Credit Union this week.

SURVEY Cont'd

In the course of the study, the survey group will work with the staffs of purchasing and financial management branches, as well as others in related work in the various Institutes. Two NIH representatives, Ted Gates of the Purchase and Supply Branch and Clare White of the Financial Management Branch, will work closely with the group throughout the entire survey. The survey is part of a Federal Security Agency-wide program, and other bureaus will be studied later.

NIH Spotlight

Attractive Helen Louise Trembley has a very unusual job. A medical entomologist, Helen Louise is in charge of the insectary in Building 3. Here she raises hundreds of mosquitoes for malaria studies conducted by NMI's Section on Chemotherapy.

Do mosquitoes have personality? Helen Louise thinks they do. They also have different tastes in food. Young mosquitoes are fed ground dog food and yeast. Adult mosquitoes feed on sugar solution, animal and human blood.

Helen Louise is often the unenviable donor, and several hundred mosquitoes feast regularly upon her arms. Do her mosquito bites itch? "Well, yes," says Helen Louise, "but you take a more philosophic view when it's important to a scientific study."

Mosquitoes infected with malaria are fed on animal donors, such as chicks, mice, and rats. Interestingly enough, some species of mosquitoes prefer animal to human blood.

Not all of the blood goes to a mosquito's stomach. Sometimes it gets sidetracked. This distribution, of importance in disease transmission, is described by Helen Louise in the July issue of "The American Journal of Tropical Medicine and Hygiene."

At present Helen Louise is translating her efforts and experience in the insectary into a bulletin to be published by the American Mosquito Control Association. This will be her 21st publication and will outline the rearing of mosquitoes in captive colonies, care and handling for disease transmission and other studies, their nutrition, and response to factors such as light, humidity, temperature, etc. The publication will include a bibliography of more than 300 references, half of which are annotated.

How did a woman get into the field of entomology? Well, after working her way through George Washington University night school and receiving her B.A. and M.A. in zoology and entomology, Helen Louise got a job with the Department of Agriculture. Here she conducted studies on lice, fleas, and ticks. Incidentally, Helen Louise wrote her master's thesis on fleas. In 1942 she came to NIH and her present job.

Helen Louise is a member of the Washington Entomological Society, having served as its secretary once for two years. She is also a member of a number of other professional societies, including the American Mosquito Control Association, where she is the only woman on the staff of its journal, "Mosquito News."

Helen Louise is a native Washingtonian, and she still lives in the District.

She confesses with a twinkle in her eye that her vacations are usually a busman's holiday. "I had a wonderful time in Florida," she says. "Some other entomologist friends and I donned hip boots and scoured the Florida swamps for interesting species of mosquitoes. I also found California to be a delightful vacation spot--quite mosquito-ridden!"

But don't let her fool you. Helen Louise has a variety of interests. She is an ardent photography fan and a better than average gardener. In fact, she just inveigled her friends into helping her build a pool in her back yard, as she says, "for fishes and lilies, not people."

NIH Record published by Scientific Reports Branch, National Institutes of Health -- Oliver 1400, Ext. 2711

Vol. IV, No. 15 - August 11, 1952

NIH Record