

UNIVERSITY OF MINNESOTA
Department of Agriculture
University Farm, St. Paul, Minn.

Division of Entomology and Economic Zoology

5th Newsletter

February 27, 1943

To the Alumni of the Armed and Related Services:

Dear Alumnus:

Wherever this newsletter finds you, be it at home or abroad, in balmy tropics, or in a scorching desert, on coral ridges or in mosquito swamps, in the war-torn world, we wish to send you greetings from a much changed campus and quiet laboratories, where only recently they echoed with the happy voices of busy graduate students. Now you are engaged in various activities to win this war, each contributing your best efforts either in the armed forces or by professional knowledge in the related services to make this task easier and to see the job well done. Those that are left here are trying to carry on, in so far as possible, a full share of research without graduate assistants.

Our classes in the winter quarter are much reduced. Ruggles' class in Economic Entomology has only 11 students, Mickel has 8 in Beginning Entomology on the Main Campus, and no students in his Advanced Entomology. Granovsky has only one student in Insects in Relation to Plant Diseases, working with him by assignments and in informal discussions. Swanson's course in Game Management is reduced to 5 and Economic Vertebrate Zoology to 11. On the other hand Dr. Riley's course of Tropical Parasitology has now 80 medic seniors and his special course for Army Medical Officers about 20. Dr. Riley, unfortunately was confined last week to bed with influenza, but he now feels better. Mrs. Riley was taken to the hospital on February 14 and is seriously ill. At this date she is still there but appears to be slightly improved.

As to graduate students we still have with us Hughes, Standish, Pfadt, Chen, Sun and Miss Hawley. Mr. Fan recently passed his preliminary examination and is now working at the University of Nebraska for three months before he returns to Minnesota for his final exams. Mr. Hughes also passed his prelim.

The Campus certainly has changed in its appearance. Coeds predominate in the scene. A large number of army enlisted reserve corps students will probably leave the campus at the end of winter quarter. We have 500 sailors on the Farm Campus and a greater number on the Main, taking specialized training. Their presence with songs and drill lends to our campus the atmosphere of the time. It is good to see them and some of us who have to stay on the home front because of age or work, catch the spirit of the cause and bend every effort toward a successful outcome of the struggle.

At this time when Minnesota's agricultural production is placed on a war basis and growers are redoubling their efforts for a greater food production, there will be many entomological problems which will demand the attention of those left behind, so that we may supply more and better potatoes, beans and peas for you, and the products of "Victory Gardens" for the folks at home.

Your very interesting letters are greatly appreciated by those members of the staff who received them and those who read them. Through these we all share something of your rich and interesting experiences. Each news item we get in-creases the respect we have for you and we are proud of you.

Good luck and best wishes to every one of you.

Sincerely yours,

A. A. Granovsky
Tom A. Biley
A. H. Rappley
W. C. Tanguay
Nick Hayward
A. C. Hudson
Janice E. Wickes
Gustav Swanson
Huld to Stand

Sergeant Herbert C. Barnett, January 3, 1943 - Division of Parasitology and Tropical Medicine, Army Medical School, Army Medical Center, Washington, D. C.

"Our new class is composed of some 250 students, including a number of civilians from medical schools all over the country. These civilians are teachers in various fields who will return to their respective schools and teach tropical medicine. Tulane University is giving a similar course and it is my understanding that Ph.D's are to be sent to Tulane and the M.D.'s sent here to the Army Medical School. The government is undertaking the expenses entailed in the case of these civilians."

"There have been so many occasions when I was almost certain of leaving that the mere mention of overseas duty makes me highly sceptical. Very recently I was practically positive that I would go out with Capt. Peres who left for the American tropics, but I'm still here. The enlisted staff at the school has undergone so many changes since I came that only a mere handful of the original group remains and already I'm considered an old-timer. I've had lots of opportunities of going to officer candidate school but somehow I can't bring myself about to trading entomological work for a pair of bars. Well, I have an application in for a commission in the Sanitary Corps and if things work out I'll have both, I hope."

Daniel Benjamin, PhM 2/c.-Hospital Staff, U. S. Naval Hospital, Newport, R. I.

Dan was in the Twin Cities on leave during the first part of January and visited the division while he was here. He was returning to Newport and at that time did not know what his future assignment would be.

2nd Lt. A. A. Bertagnolli, 877 Chemical Company, Barksdale Field, La.

Bertagnolli received his commission in December and was assigned to Barksdale Field, La. from which a Christmas card was received from him. Here's hoping we may have a letter from him to include in the next Newsletter.

Staff Sergeant Everett G. Blood, Med. Det., 323rd S.T.R., Fort Benning, Ga.

A notice in the December number of the Journal of Economic Entomology gives the information that Blood is in the Army at Fort Benning, Ga.

2nd Lt. A. W. Buzicky, 3 Bn., M.A.C., O.C.S., M.R.T.C., Camp Barkeley, Texas

Al. received his commission as 2nd Lieutenant on the 19th of December and was able to get a ten day leave to visit St. Paul. He spent one day at the Division at University Farm and we all enjoyed our visit with him very much.

Lt. Buzicky, February 9, 1943

"My duties at the Post have kept me occupied days and a rather large per cent of the evenings as well. Contrary to my expectations at first, I was not assigned to the Department of Sanitation but rather as a platoon leader in almost complete charge of 54 officer candidates. In the light of recent developments it appears a fortunate assignment because of the increased responsibilities and more varied series of duties."

"Georgiana and I have found a tiny house in Abilene which we are renting until we find something better. Because of the large camp and relatively small size of Abilene, rentals are extremely difficult to obtain and frequently officers and wives have to live in single rooms - much as the grad-students used to in the Park. However, considering the hell some of our boys are going thru overseas this is soft."

Lt. LeRoy D. Christenson, - Army address unknown

Harden writes on February 15 - "Recently, I met Lt. LeRoy Christenson of the Sanitary Corps. He knew you (Mickel) at the U. of Minn. some years ago. He chased rats for Doctor Riley; he worked under Dr. Chapman and he knows Dr. Hodson. He is in a malaria control unit at the New Orleans Staying Area. He was with a group of soldiers being trained in malaria control methods when they came out to get a view of our control methods. I had a very pleasant visit with him."

Ensign Richard H. Daggy, November 20, 1942 - M Division, N.A.B. Button, Fleet Post Office, San Francisco, California.

"Last time I wrote I was in Wellington, New Zealand although we were not allowed to say so at the time. Since then the presence of American troops in New Zealand has been made public and censorship regulations have relaxed somewhat. At present I am located at a secret base here in the South Pacific - the particular island can't be disclosed at present. While in Wellington with the Marines I broke my foot in a dock accident supervising a party loading medical equipment a week before we were to shove off for an unknown destination - now very well known as the Solomon Islands! At the time of the accident it was diagnosed as a severe bruise and up to the time of sailing I looked forward to going along with my outfit. At the last moment a general order came out that none on the sick list were allowed to go aboard. Being on crutches at the time I was deserted and left behind. After hobbling and limping about Wellington for six weeks, another group made preparations to leave for Guadalcanal and so I packed again. The day before we were to shove off "again" a second X-ray showed three metatarsals cracked so again I was taken ashore and again left behind!

"During much of this time I was able to get about quite well and did make a number of friends and saw as much of New Zealand as I could. One of the first places I visited was the Dominion Museum where Mr. Salmon, the entomologist, was extremely kind and went out of his way to show me their collection. Here as in most entomological museums, the common complaint was so much to do and so little to do it with! Their collection in no way compared with ours at home but, of course, one must remember that it is a small country and entomologists, at least collectors, are not too numerous. I looked at the Ephemeroptera first and was disappointed at seeing so few and in rather poor condition. Mr. Salmon entertained me very well and it was very interesting to hear him talk about Tillyard and his work in New Zealand. I was very sorry not to be able to go across to the South Island where the Cathryn Institute is located. It was here that Tillyard did most of his work when he was in New Zealand."

"While in Wellington I also visited the Victoria College University, the equivalent of a state university, except that it has four branches, one each in the larger cities. Here I met Prof. Kirk, a very kindly old gentleman who had built his department up from a group of two students to a fine new building. I called there a number of times and was always invited to stay for tea. In fact it was hard to avoid coming at a time when tea was not served. Promptly at 10:30 A.M. the faculty gather in a special lounge for "morning tea" with a repeat performance at "afternoon tea" at 4:00. Here I met most of the faculty, many of whom had visited in the States. The custom of having morning and afternoon tea is a pleasant and sociable one but I must confess that I gained 10 pounds during my stay in New Zealand. Part of that I can blame on 'tea', the rest on not being able to get much exercise with a 'crooked' foot (i.e. New Zealand for injured or hurt)."

"While in Wellington I met Capt. Dearing (now Admiral I believe) who is in charge of all medical work in the South Pacific. A short time before, I had heard of a malaria control unit which was to operate in the South Pacific and that some of the personnel had arrived from the States. Upon learning that I was a stranded entomologist very much interested in that kind of work, he had my orders changed and in a few days received official confirmation that I was now part of the malaria control unit and not attached to the Marines.

It was a queer feeling going back to the Navy - a Navy Officer who had never been with the Navy in the first place! I was to report to the medical officer in charge of the unit at one of the islands farther north - another secret base to the south of my present location.

"My travels began again. I went by train from Wellington to Auckland, a never-to-be-forgotten trip in which a landslide stopped the train for four hours in the middle of the night! For a moment I thought it was another earthquake! By the way, I experienced two rather severe ones while in New Zealand - my first experience trying to keep upright when the ground, not a ship, starts to roll!

"I was only in Auckland a day or two before transportation north was made available - a thousand mile flight by PB7 seaplane. Quite a trip for a novice who had never been in the air before! That trip by plane north from Auckland was a thrilling one. Coral atolls, barrier reefs, etc. were, of course, familiar phrases that I myself had very glibly used in discussing Coelenterates but to actually see them and from the air was a far more beautiful sight than I had dreamed. Colors from the brightest and deepest blue to almost every color in the spectrum could be made out as we flew over different depths - and a barrier reef around part of New Caledonia was like a textbook illustration. Seeing it in "technicolor" was really a thrill!

"While stopping over, I very unexpectedly met Tom Larson, whom some of you will remember as the globe trotting, hitch-hiking, forestry student. He is an Ensign in communications - but when he heard I was going to work in entomology he wanted to come along! I stayed over only a few days before I again started north and again by plane to reach base Roses - (another code name like Button). Here I was introduced to the officers of the malaria control unit and to Dr. Supero, head of the work in the South Pacific. Imagine my surprise to meet Dr. Kenneth Knight, another entomologist with the group. He had visited Minnesota at the time of the North Central States meetings where we had met and he knew Carl Weinman and Frank Fisk - yes he was an Illinois graduate, taking his degree in the summer of '41. While at Roses for the next four weeks, we had a grand time talking shop and working together in the field. He had been out here only a month, and was just beginning his survey program and control work. I stayed with the group there for about three to four weeks and learned as much as I could about our vector, A. punctulatus. After my 'short course' I was sent still farther north (queer, talking about going north to the equator!) to another island base - Button. Here I'm the entomologist in charge of malarial mosquito control - the job I hoped for, or at least the kind of job I hoped for, when I first applied for my commission - and it took me almost half a year to get it! But I really consider myself very fortunate - it's a chance of a lifetime to get invaluable experience in medical entomology in the tropics and especially in this part of the globe."

"Out here in these islands our only vector, so far at least, is Anopheles punctulatus although A. annulipes has been reported and is shown in Boyd's map. The only known works on the mosquitoes, as far as we know, is that of Buxton reported in his Researches in Melanesia and Polynesia published about 1926. Up until a few days ago the only breeding areas found were along margins of some of the rivers and large springs and Knight and I had been going on the assumption that these were the only dry season breeding places. The last few days I have found them in temporary roadside pools - some of them formed in road building operations. Anophelines are abundant in some of these places and those that do not dry out will produce quite a number of adults. It was rather a surprise to find them breeding in such locations so soon. I had supposed that when the rainy season begins in earnest, these pools would present a succession of mosquitoes with the anophelines coming in when more stable conditions were attained. But they migrated from the rivers sooner than we expected and our control problem is evidently going to be more extensive than I thought at first.

"I have seven men - 4 army, 3 navy and a marine driver - so all the services are represented in our mosquito control force. I'm training the group in anopheline survey methods and they will supervise control in the field - each being given a certain camp area.

"We're just completing our malaria laboratory here on the hospital site. A prefabricated Quonset hut has been given over to our work and half is to be an entomological laboratory. When our binocular dissecting scope arrives I'll be all set to conduct our mosquito survey of the island. A dry cabinet will soon be in operation and I'll be able to keep my collections without danger of mold. I've already collected a number of beautiful moths at lights in my tent and when we get fully organized I hope to do quite a bit of general collecting, papering the specimens, sealing them in cigar boxes and storing them in the dry cabinet until we come home."

Richard Daggy - December 5, 1942

"Have just returned from several days trip to another part of the island where we have a camp and airfield - and a malaria problem. The anophelines are breeding along the margins of two rivers here - actually they are huge springs arising from deep clear pools and flowing about a mile or two before reaching the sea. We're finding the larvae in rafts of algae and debris - one man-improved breeding place was made when they felled a lot of trees into the river in clearing the end of the airfield. Algae and watercress are collecting in the tangle of brush and forming an excellent breeding place. To add to the situation, a native village is located nearby to supply carriers! In most cases, natives have been moved to a safe distance. If only they had been moved out of the occupied areas entirely, our problem would have been very much simplified.

"I've borrowed a rubber boat from the Marines - the type they use in landing operations, perhaps you've seen pictures of them - and we use it in surveying and oiling breeding spots along the river. The streams are beautifully crystal clear with heavy overhanging vegetation. All kinds of epiphytic ferns and orchids, some in bloom, hang from the trees - and bright colored parrakeets scream and fly away as we approach. The clear deep pool, forming the spring source, is used as a swimming pool - much more beautiful than Silver Springs in Florida and when our day's work is done we take full advantage of it!

"This island base was inhabited by a few white men who ran plantations - largely coconut palms, cacao, coffee and a little cotton. Some papayas, bananas, pineapples, limes, tangerines, and oranges also occur - but usually some one gets there before you do! Some of the planters are French and I've been taking every opportunity to inflict my own particular French on them. Occasionally they look somewhat puzzled, it's true - but then, I can usually make myself understood. When I mentioned 'les moustiques', they lift up their eyes and spread their hands! Evidently they become quite numerous when the rains come! We got a foretaste of what is to come this morning - the whole hospital area almost floated away into the bay.

"We have rather comfortable quarters even when it does rain. Our tent is situated high upon a hill in a coconut grove overlooking the bay and we usually have a breeze. Barrels placed in strategic spots catch all the rainwater we need and we even have our own private shower bath. We are working on the problem of hot water just now, but have just about decided to let the climate take care of that. Laundry is quite a problem. When I run out of clean clothes I drive to the nearest river armed with soap and brush. The big problem is trying to keep things dry - the air is very humid."

"Flies are a problem on the whole island (a species of Musca) and are no doubt responsible for the epidemic of bacillary dysentery which run thru temporary camps when they are first set up. Mess halls, galleys and heads are often not screened at once and the dysentery runs its course. It's evidently a mild type lasting only a few days and then evidently conferring an immunity.

Most people report coming down with it the first few weeks they are on the island, so far I've escaped. Where the flies come from nobody [nobody] seems to know. I've found some coconuts filled with maggots which I'm rearing at present and which may prove to be the troublesome species. Horses are few but cattle are very numerous and are used in most of the coconut plantations for keeping down the underbrush. In either case it will be a difficult problem.

Richard Daggy - January 16, 1943

"Your letter of October 29 was just received a few days ago and today the 4th edition of the Newsletter arrived, together with a flood of Christmas cards and other mail. You have no idea of how nice it is to hear from home again and news of the gang back at school. Your letter was addressed to the old USMC Unit 195 address, and in the normal course of events I would have received it six months hence if then! Fortunately my old outfit was based here for a few weeks while being evacuated to New Zealand. From them I learned that all my mail of last summer was received at Guadalcanal and then forwarded to New Zealand where they thought they had left me. Christmas packages, two editions of the Newsletter to say nothing of other mail have traveled all the way to the Solomons, are now en route to New Zealand where they will be forwarded back north to my present location. I only hope they can stand the trip!"

"We have a very fine laboratory at present, and when our new hospital is completed, the plans call for an even better one. Now that I have a binocular as well as compound microscope, I'm all set as far as the entomological work is concerned. So far all our efforts have been in the field, surveying the occupied part of our island for existing anopheline breeding places and getting familiar with the country. The only vector discovered so far is Anopheles punctulatus and from our observations made so far, it seems as varied in its habits as A. gambiae. The seasonal picture is something as follows: the anophelines have as permanent breeding places thruout [throughout] the dry season such locations as spring, river margins and wells. When the rains come, low spots develop into pools and in only a short time the anophelines migrate from these permanent breeding places to the temporary pools. Such pools are found thruout [throughout] a new area because of road construction and driving over low moist ground leaving road ruts and other depressions in which water collects. At the very beginning of the dry season, such pools as are formed may dry out before the larvae complete development but as rains become more frequent, water remains long enough to enable the larvae to complete their development. We've also found anophelines in tin cans with Aedes aegypti and the closely related Aedes variagatus. Some of the muddy and foul-smelling pools in which we've found A. punctulatus have been a distinct surprise, especially when we compare this vector with A. quadrimaculatus back home. The smallest collection of water, even hoof prints, have been found to contain anophelines. In every case so far, a well or stream has served as a permanent breeding place from which they spread to those more temporary breeding places. Of course, we have concentrated at the beginning of the season on controlling such permanent breeding places and are trying to stop the spread from these centers. Some of the streams are the worst offenders in this respect. Their margins are heavily covered with brush and vines which hold rafts of algae, leaves, and debris forming excellent breeding places for anophelines throughout the year. Clearing the margins is being recommended and our unit is preparing a sort of demonstration stream to show what can be done in malaria mosquito control. It is hoped that some of the larger rivers will then be worked on by larger engineering units. In the meantime we are carrying on an oiling program and training men in various camp units for control work in their own camp sites. We are also consulted on proposed camp and airfield sites. I have also been experimenting with some small guppy-like fish which are very common in the streams. So far they are doing very well in some of the deep open wells which were formerly breeding anopheline and pest mosquitoes.

"As far as collecting goes, I've literally been 'champing at the bit.' So far I haven't felt justified in spending much time doing just that, but as things

settle down to a more well-ordered routine I certainly intend to take advantage of being out in this part of the world and do a lot of collecting.

"The dragon flies have so far been the most tempting group to concentrate on. So many species are very brilliantly colored and marked in various ways -- quite unlike most of the forms back home. I've got most of my mosquito crew taking 'swipes' with their sun helmets whenever a particularly attractive specimen flits by. The rarest specimens seem to have the most annoying habit of just keeping out of range of the net I've made for their special capture -- but in spite of that, I now have about 10 species already represented."

Richard Daggy - January 20, 1943

"Since the last pages were written, I've been out inspecting some of the drainage work being done by some of the construction battalions. They are cooperating very well, and some of our worst areas are being drained. Some of the mechanical ditch-diggers they are using are certainly excellent for this type of work. One of the big problems is still that of the many small temporary pools formed by rains. These will probably always have to be sprayed by the hand sprayers.

Knight writes me that a shipment of Gambusia from New Zealand is being shipped by plane and I'm awaiting their arrival with interest. I have a number of places that I'm especially anxious to introduce them and see what success I'll have. I've heard of the use of Gambusia, of course, but this will be an excellent chance to see how they work out at first hand."

In another letter dated January 20 Daggy states that he has just bought an ivory bracelet from a native for \$2.00 and then says that he can go across to nearby Malekula and buy a wife for three of these bracelets.

Donald G. Denning, - December 8, 1942 - P.H.S. (R), C/o State Health Department, 207 Civil Courts Building, New Orleans, La.

"This is my third week in this area. I believe I mentioned to you before that my work is largely concerned with the salt marshes of the Mississippi delta. I understand there are about 32 million acres of marsh in this area. Griffiths and my job is to locate the area where the heaviest breeding of sollicitans (in relation to the Higgins shipyard) takes place. Thus far I have been into several widely separate portions of the marsh. It is possible to reach only small parts by car, the remainder is covered by motor boat. At present we are finding heavy breeding of T. inornata, and light breeding of crucians and selinarius. Captain Chapman is attempting to obtain a larger and faster boat so that we may reach formerly too distant or too inaccessible portions of the Marsh.

"Saturday morning we visited Dr. Hathaway, the Entomologist at Tulane, who had done considerable work on the salt marsh mosquitoes. He is well acquainted with some parts of the Marsh, its vegetation, etc., and no doubt will be of great assistance to us.

"We have found New Orleans very interesting and different from any city hitherto visited. Some of the parks, especially Audubon Park is very scenic and interesting."

"As you probably already know, Steve Easter is now located in New Orleans and Don Jackman enlisted several weeks ago."

Donald Denning, January 16, 1943

"On December 29 I received a letter from the Reserve Board saying my P.H.S. Commission had been approved. Several days ago Major Smith of the Army Procurement Division in New Orleans contacted me and requested an interview for Saturday morning, January 15 I sent a wire to Dr. Williams and he replied that my commission as 1st Lieutenant would be signed the first of this week. Major

Smith expressed regrets and said the Army was in need of Entomologists."

Donald Denning - February 5, 1943

"We have just received word from Atlanta that the Salt Marsh mosquito work will be discontinued. I do not know the reason for this decision except possibly that no additional money is available for continuance of the program. Consequently, on or about February 8 Griffith will be transferred to Oklahoma City. I do not know when, where or if I will be transferred. Mr. Bradley is at present in Puerto Rico and so perhaps no decision will be made until his return this week-end. Rumor has it that I would go to Delaware."

"During the past week some 200 men, (enlisted, etc.) have been sent by the Army to a camp on the outskirts of New Orleans for a mosquito control course. This office is acting in close cooperation with this which may become a permanent army mosquito central training center. We have been busy getting together a large number of determined larvae and adults for their use. The army is preparing these men in teams of three, an entomologist, a parasitologist and a malariologist. Colonel Russell is reported to have said he has a request for a large number of these teams to be sent to widely scattered portions of the world. This new program may explain why the army has been so anxious to commission entomologists lately. This next Friday I am to give a lecture to the group on mosquito identification, their characteristics, etc. Harden is on the following Friday. A few days ago Harden, Griffith and I made an interesting trip to Fort Jackson, 60 miles or so South of New Orleans. We were in the Citrus belt of Louisiana and it was quite a sight to see many trees loaded with oranges and mandarins and lesser numbers of grapefruit. Fort Jackson dates back to pre-Civil War days (about 1840) and played an active role in the Civil War. The Fort was a huge thing build next to the levee of the Mississippi River. It must have been able to accommodate several thousand men. It is completely in ruins now and appears to be slowly sinking into the mud. Most of it is under about four feet of water. Nature is rapidly taking possession of it. On its roof some trees six inches in diameter are growing. Resting on the walls and ceilings of many roofs we found large numbers of resting quads, crucians and Culex species."

The division has received an announcement of the birth of James Donald Denning. Congratulations.

FLASH!! (From our special reporter). "You should hear James Donald Denning's voice. The nurse said it was the most powerful in the nursery."

Master Sergeant Edwin Dery, 487th Eng. Water Supply Bn., Camp Young, Indio, California - December 20, 1942.

"Due to the cold weather a number of our mobile water purification units were severely damaged with the result that our battalion had to seek another training area. We were ordered to move to the Desert Training Center at Camp Young.

"Camp Young is 26 miles East of Indio, California in the heart of the vast Mojave Desert. This area is the site of the gigantic maneuvers for desert warfare. General Patton, who led the American attack on French Morocco, trained his armored force here on the desert. This is typical desert terrain with sand and mountains in all directions.

"We are living under battle conditions with the exception that we live in pyramidal tents and are fed field rations. There is no electricity or running water in our area although such conveniences are found in camp. The climate is typically desert with hot days and cold nights.

"For training purposes this area cannot be beat. Conditions are just like those in northern Africa. The mountain ranges along the Colorado River are very similar to those found in Lybia.

"Experience and adjustment to living under such conditions are the most important fundamentals to be acquired while training in this area. There is a special diet fed to the soldiers while even the motor vehicles use special oils.

"I have always had a keen interest in the desert and finally I have the chance to explore its wastes. I wanted to collect some scorpions and centipedes, as well as some of the insects found on the desert but unfortunately it becomes so cold during the night that most animal life has disappeared.

"I have travelled over a large part of the Mojave desert during the past few weeks while out on water reconnaissance for the coming maneuvers and one bivouacs with the water supply operators. During the past few days I rode 750 miles in three days and travelled in three states. It is difficult to describe the country that I visited because it is so beautiful, mystifying and yet so treacherous. Accompanied by a Lieutenant, and riding in a jeep that was loaded with water, gasoline, food and our bed rolls, I crossed mountains and valleys, explored canyons and mines, and traversed many kinds of terrain. The entire trip was thrilling and adventuresome.

"After spending time out on the desert, I often wonder how the old prospectors were able to cross such expanses of waste land. Even though civilization is slowly closing in and our means of transportation are excellent, it is still a problem to move over the desert."

Edwin Dery - January 3, 1943

"This past week I spent four days surveying a spring in a canyon in an old government pass high in a mountain range. Here a series of springs contribute about 200 gal. per minute to a tiny brook. The temperature of the water is over 70°. This warm water supports a tangle of trees, vines and various aquatic cress and spearmint. During the nights, mountain lions come within 100 yards of our campfire.

"Contrary to popular belief there is much water on the desert if a person knows where to look. Springs and wells, as well as old mine shafts are the chief source of water. I have found beautiful oasis in the heart of the desert.

January 31, 1943 - Edwin Dery

"I have spent most of January in the field on reconnaissance and field problems. Last week my reconnaissance extended into the State of Arizona. There I found a very different and treacherous type of terrain. The roads are fewer and are more or less trails. The mountains are honey-combed with canyons and caves making it very easy to get lost. I found that large underground lakes lie about forty feet below the desert sands. Everywhere a well is put in, the quantity of water available is unlimited. Mining companies have trouble keeping water out of the mineshafts. The ranchers do not have the problem of water supply for their cattle that the ranchers in California have.

"In the course of interviews with the ranchers I have learned about cattle raising on the desert. In the first place, the ranches are very large, some being 150,000 acres. With feed very scarce a large area is necessary, then too, mountains must be bought when the sloping sides are wanted. About 1000 acres of land are needed to support one steer on an average-type desert. Cattle do not eat cacti and therefore must exist on a shrub found everywhere in the desert. In California and Nevada, watersupply is very important to cattle ranchers. Normally cattle must be within three miles of water. If caused to walk farther, a large percentage would die from water exhaustion. To supply water throughout a ranch, wells are located on rolling hills or the mountain sides and pipelines run to troughs. Once rancher in California had 35 wells and 50 miles of pipeline.

"It rained several times during the month of January. This was for the most part of the desert, the first rains since July, 1941. Many roads were washed

away and large areas were inundated. I was travelling through the Yuma Desert at the time and was very fortunate to get out. I was almost floated away with my bed roll when the storm first hit southern Arizona.

"I often wonder if this battalion hasn't become a general service unit. We have most of our men working for some one. Our well-drilling section is drilling wells for new camps while the water purification section is busy furnishing water for most of the desert troops. Our truck drivers are driving for different units while others are building showers and other constructions. I spent four days surveying a small stream in a range of mountains.

"I have seen but one scorpion since last November. As soon as the warmer weather begins, scorpions and centipedes should become abundant. The average nightly temperature on the desert in January was 25°.

"The government has several thousand acres of land near here that is being used for rubber tree seedlings. The project will require ten years which results in little aid for the present rubber shortage. Tungsten is now being mined in southern Nevada. It is one of the best mines discovered in the United States.

"Maneuvers were to begin in January but were postponed to February 15 to save gasoline and rubber. Food shortages rather than fuel and gasoline are the greatest cause for alarm in this district."

H. Rodney Dodge, U.S. Public Health Service, P.O. Box 1095, Macon, Ga.

Apparently Rodney has not yet recovered from his recent marriage. At any rate we have heard nothing from him since the last Newsletter or perhaps it is the identification of those Culex mosquitoes he collected in the light traps last fall which has kept him from his correspondence.

Harold Elishewitz, Medical Research Institute, National Naval Medical Center, Bethesda, Maryland - December 28, 1942

"When I came to Washington a month ago I tried to enlist in the Navy but failed the eyesight exam. So they sent me out to their new research institute at the new Naval Hospital in Bethesda and hired me as a civilian. Dr. A. C. Ivy, the gastroenterologist from the Northwestern Univ. Medical School is the only other civilian here. He is the director of research.

"My duties are as yet unclear. The Institute has not officially opened. The four-story modernistic building and its animal house are not yet completed, the animals have not arrived, a great deal of the equipment and office furniture has not come, we have not been assigned permanent rooms and the staff has not all been appointed. When these deficiencies have been remedied by the Spring it will be the most complete and modern research institute in the country, taking over all of the Navy's Medical research. The Naval Medical School will restrict itself to teaching.

"The Institute is located 10 miles from downtown Washington - right across the road from the National Institute of Health, the National Cancer Institute, and the U.S. Public Health Service. Living conditions are not at all bad - there are plenty of rooms available within 10 minutes walking distance.

"My first duty is taking charge of the electron microscope. I spent one week reading the literature on the subject and then took a three day course in its manipulation from the RCA man who installed the instrument. It is an 8 foot, one ton, \$15,000 toy that can really perform wonders if handled properly. There are about 60 dials that must be adjusted in order to align and focus the instrument, regulate its power supply, insert the specimen and photograph it. The electrical wiring is one of the most complicated mazes imaginable so an electrician is taking charge of the repair and maintenance. What the instrument will be used for eventually has not been decided - so for the present I will work

on a comparative morphological study of the rickettsiae and malaria, -- neither of which have been worked on yet.

"Until I complete the plans for the organization of the entomological work, such as plans for the insectary and detailed protocols of the experimental work including a list of every piece of equipment needed I will assist Dr. Don Mathieson in his work. Lt. Mathieson got his degree from Minnesota in 1936 and was bacteriologist for Sharpe & Dohme until called to active duty a couple of months ago. He has charge of the bacteriology department here. At present we are working on a comparative study of hog and sheep gut surgical sutures and a more satisfactory method of sterilizing individual water supplies under field conditions.

"Miriam is working on toxoplasmosis transmission by ticks, mosquitoes, bedbugs and fleas at Columbia University Medical School. She started as soon as we arrived in New York and while building up the mosquito and tick populations has already completed the first phase of the work - the determination of the time of appearance and duration of occurrence of the parasite in the peripheral blood. I have been commuting between Washington and New York on weekends."

Frank C. Fletcher, Wards' Natural Science Establishment, Rochester, N.Y.
January 9, 1943

"After spending a week at Ft. Niagara, N.Y. I was shifted to Camp Pickett, Va. However, I did not know for sometime afterwards whether I might not be shifted right out again. I am in a medical training unit but where it will land me I have no idea, I know it won't be in entomology, although I tried to get into that branch.

"As Wards' are willing to take me back in my former capacity, I have just made application for a discharge which is permitted of men over 38 years. Whether or not this will go thru is an open questions but I may be back in civilian life in the course of the next few weeks."

A recent letter from Fletcher states that he has received his discharge and expected to return to Wards' for work within three or four days.

1st Lt. Ashley B. Gurney, Station Hospital, Camp Crowder, Mo.

We have had no news from Dr. Gurney since the last Newsletter. We suppose that he is still at Camp Crowder although we do know that some Sanitary Corps commissioned officers are now being sent overseas.

Lt. Philip Harden, P.H.S., 1914 Amelie St., New Orleans, La. - February 5, 1943.

"The mosquitoes haven't let up much this winter but I'll give them a few minutes rest to write a line. We've been glad to have the Dennings in the city during the st [past] few months. We haven't worked together much during this time, since he was working on the salt marsh mosquito problem and I, on the malaria control program, but we have had some interesting times together.

"Here in the New Orleans area we have too short a season of mosquito inactivity to let up our control program much. We have found high populations of Anopheles quatrimalaculatus adults in some of our catching stations until the first of January. Our light trap catches during the winter have fluctuated with the temperatures. During the warmer spells, some of our nightly catches have equalled an average summer catch. To one of our traps down the river came 200 mosquitoes one weekend (2 days), 46 of which were 'quads'. We are still puzzled as to where these Anophelines come from since we have not been able to locate any resting adults or larval breeding in our control zones about this light trap. We have kept up our regular program of inspection this winter but have larvicided only when large Anopheles larvae were found. (During the summer, all breeding grounds in our control zones were oiled on a weekly schedule.) Now our

warm spells are getting longer; already we are noting more active breeding of Anopheles starting. Evidently our struggle to keep the 'quad.' counts down is starting again in full swing.

"Last week Don Denning, I, and three other entomologists of the state received commissions in the Reserve Corps of the U.S. Public Health Service. We entomologists who received commissions are indebted to Dr. L. L. Williams for persuading the Reserve Board to extend commissions to entomologists as well as to doctors, dentists and sanitary engineers."

Philip Harden, February 15, 1943

"Now wasn't that thoughtful of all of us to forget to tell the rank of our commissions in the U.S.P.H.S. reserve corps. Here's what! We're Assistant Entomologists and after our titles we put (R) to signify the commission in the reserve corps. The regular army officer's uniform has been designated for the commissioned personnel of the Malaria Control Project; the rank of assistant is designated by first lieutenant's bars. To most people we remain lieutenants rather than take time out to explain to each person we meet for the first time that we are commissioned assistants in the U.S.P.H.S. and not first 'lieueys' in the army.

Captain Frank Fisk, Medical Section, S.O.S., Army Post Office 886, C/o Postmaster, N.Y., N.Y.

There has been no news from Frank since the last newsletter.

Pfc. John D. Hitchcock, 4th Platoon, 300th General Hospital, Camp Forrest, Tenn. Jan. 21, 1943.

As you will note from the above address John is still at Camp Forrest, Tenn. He has applied for a commission in the Sanitary Corps but to date we have not heard whether he has received it or not.

Major William Jellison, A.P.O. 629, Postmaster, New York, N.Y.

No news from Jellison since the last Newsletter.

Private Thomas H. Johnson, Jr., Larson General Hospital, Atlanta, Ga. - Feb 1, 1943.

"I am in technician school learning the army procedures for laboratory technicians. The course requires 3 months for completion and is divided into hematology, urinalysis, gastric analysis, histology, bacteriology, serology and parasitology. I have completed the work in urinalysis and gastric analysis the only part that was kind of foreign to me, and the other should be a matter of review."

Ensign Gerhard Kretschmar, District Coast Guard Office, 310 North Washington Square, Philadelphia, Pa. - February 18, 1943.

"I have been keeping pretty busy - busy enough to make time pass quickly. I'm still at the same job - combination Ordnance and Chemical Warfare Officer. It boils down to procurement and allocation of the supplies. Sometimes I wish I were aboard ship again but the way the officers are being transferred out of here on landing barges, I guess it won't be long now. The Coast Guard and Navy are really stressing those now."

Tamarath Knigin (Mrs. Stanley Fausst Yolles) - Malaria Laboratory, Office of Sector Surgeon, A.P.O. 868, C/o New York Postmaster, New York, N.Y. - December 28, 1942.

"I am no longer where I was - Stan and I left last Monday. We flew to place where we were stationed before. Is that clear? It is the same place where Cal.

Pederson is stationed except that he's with the Navy and we're with the Army. His censorship restrictions are obviously different from ours. I saw him last Friday - it was grand chatting with 'one of the boys' again. Just yesterday he flew to the place where I just came from where he will spend a few days. This probably sounds like a hopelessly jumbled mess. It seems that always happens lately. Whenever there is something I particularly want to write about I must always carefully skirt regulations. I should like, for instance, to tell you all about our new job. It really is going to be quite interesting and the scope will be quite broad. Stan and I were slated to work with Dr. Downs and it was quite a blow to us when he was suddenly transferred a few days ago. Of course, Shannon is still here. He seems to be a grand person.

"We aren't settled here yet. Housing conditions are miserable. As soon as things are a bit more settled I promise to write faithfully."

An announcement has been received by the Division that "Mr. and Mrs. Max H. Knigin announce the marriage of their daughter, Tamarath Dorothy to Mr. Stanley Fausst Yolles on Saturday, the 10th of October, 1942, British Guiana, South America."

Lt. (j.g.) Horace Lund, Naval Air Station, Elizabeth City, North Carolina.

Horace was home in Minneapolis on leave the first part of January and we had a splendid visit with him while he was here. Unfortunately he had to spend two or three days in bed with the flu which deprived him of some of the valuable leave time that he had expected to do something else with.

John T. Medler, 802 North F Street, Porterville, California - December 15, 1942

"Our program here deals with four zones, The Porterville zone is an auxiliary bomber field, capacity 500 men, and the town of Porterville. The Visalia zone also is an auxiliary bomber field with a capacity of about 1000 men. The other two zones are primary flight training schools. Both are 'dry' at present, but in the spring they will be 'wet', and we will include them in our program. As you know, the PHS program is restricted to the control of anophelines in a mile zone about military establishments and places where military personnel congregate.

"My duties include the locating of larval breeding spots, the tending of light traps, checking on the effectiveness of larvicidal work and making adult surveys. At first, all collections were sent to a 'State' entomologist in Berkeley for identification. However I contacted a local Junior College, and their facilities enabled me to learn mosquito taxonomy, so that now I make all identifications in my area and send only the records to Berkeley.

"Three of the four Californian anophelines are present in my area. The species at Porterville is pseudopunctipennis, a non-biter, which is thought not to be a malaria vector in this region. Two others, punctipennis and maculipennis, are very scarce and apparently do not breed in my zones. Although our program got underway rather late in the season, we had a definite peak of mosquito breeding in September and October. The data obtained have led me to the conclusions that there is no widespread breeding of an important malaria vector, and that there is no malaria problem in my zones. This, and the fact that we 'protect' only guard details at the bases have convinced me that my work is unimportant and rather a waste of effort.

"The minor nature of the U.S.P.H.S. program here has been a disappointment. However, I have gained valuable and necessary experience in regard to anti-malaria work. This experience now qualifies me for more important work.

"During the last of November I received a letter from the Surgeon General, U.S. Navy, with respect to an application for commission in class H-V (S), (Entomology), U.S. Naval Reserve. In the same week I received a letter from Dr.

Williams stating that there is a possibility that the Reserve Corps of the U.S. Public Health Service will be opened to entomologists in the near future.

"I have just returned from San Francisco where I had a preliminary interview and a physical exam. for the Navy. My vision would ordinarily disqualify me for that service, but a waiver has been recommended. In view of the fact that I was contacted by them, it is thought that nothing will be lost by completing my application. The Navy is my first choice.

"In the event that my application for the Navy is not allowed, I am also making my application for a commission in the U. S. Public Health Service."

The following note was received January 5 from Merrie Medler - "Michael Alan is my new baby brother. He joined our family December 28, 1942. He weighs 6½ lbs, and has red hair! I am very proud of him."

Lt. Herbert E. Milliron - 1560th Service Unit, Medical Section, Station Hospital, Camp Atterbury, Indiana - Feb. 15, 1943.

"There isn't a great deal to say regarding my experience in the Army. Until December 17 I was kept at Camp Grant where my duties concerned instructing of men in one of the companies. Of course, I began that work after completing the four weeks course given all officers. Having had that opportunity to assist in field training and to give instruction on sanitation at Camp Grant was most worthwhile and enjoyable. Camp Grant is a swell place.

"From there I was transferred to Fort Knox where my duties were much the same except the training of the men in the Medical Detachment fell largely on my shoulders. A major commands the detachment and I was one of his assistants. Altho I was not there long enough to finish more than one training period with the recruits, a fair picture of that type of work was gotten.

"Fort Knox, which is the home of the armored forces, is also a nice place. In general, the entire staff of officers of the division in training there at that time was composed of genuine soldiers. Occasionally I was able to break away from my duties and watch tanks and other armored vehicles maneuver. Since I was much interested in operating a tank I was privileged to do so, and that is one of the events to be remembered.

"On January 19 I was suddenly transferred to Camp Atterbury, supposedly because some one at the Fifth Service Command Headquarters thought an entomologist was needed here. Some mosquito control work is contemplated, but what will be the results of any such endeavor is questionable since we have little hope of getting the necessary equipment and labor. I am assigned here as assistant post sanitary officer in charge of this work on mosquitoes."

H. Page Nicholson, P.H.S. (R) - 300 Essex Building, U.S. Public Health Service, Norfolk, Va. - January 18, 1943.

"We are enjoying a spell of spring-like weather with the temperature reaching 77 degrees yesterday. However, we are not always so lucky. Just before Christmas we had almost a Minnesota blizzard -- wind, snow and 3 degree temperature. It didn't last long though.

"I understand the Army is after 200 engineers and entomologists. It evidently is willing to take entomologists under 30 now, and I was told that the experience requirements have been somewhat relaxed."

H. Page Nicholson - February 1, 1943.

"Well the PHS commissions finally came through and we went on active duty today. I understand 24 entomologists were commissioned. One of the men from Atlanta was up last week and asked if I knew of any other entomologists who might want jobs."

Captain William B. Owen - 915 South 10th Street, Laramie, Wyoming. -
February 14, 1943

"Yesterday I was sworn in as a captain in the Army of the United States and will leave Laramie on February 22. I am to report for service to the Commandant of the Medical Field Service School at Carlisle Barracks, Pennsylvania."

For the Present Mrs. Owen will remain with friends in Laramie. She can be reached at 915 So. 10th Street should the occasion arise to contact me. Just as soon as arrangements can be made, if at all possible, she will join me. It isn't a pleasant arrangement, but neither is a war."

Lt. (j.g.) Calvin Pederson, Malaria Control Laboratory, U. S. Naval Air Station,
Trinidad, B. W. I. - December 27, 1942

"The 4th Ent. Dept. Newsletter reached me a couple of days before Christmas and I found all the excerpts very interesting. Dick Daggy must be having a wonderful time out there in the Solomon area -- well he isn't quite that far up, but near there. There were a couple of clues in his letter which enabled me to pick out what may be his exact location. I learned to know Knight, Daggy's companion out there, while I was at New River, N.C. last fall.

"Mr. and Mrs. Yolles (Tamarath Knigin) are back on the island. They spent all of Wednesday last week out here doing microscopic work for our labor check. We are so buried in unexamined slides at present that we called upon the Rockefeller people for a loan of a couple of technicians for a couple of weeks. They put us on the trail of the Army, and we finally ended up with the Yolleses. Both of them enjoyed their stay in British Guiana, but they were all questions as to what I had heard from the States. They only worked that one day but will be back in the morning after a short Xmas holiday.

"I am leaving here for a few days now and hope to see some interesting country before I return. I hope to get some new anophelines too while I am away. This may sound a little strange to you, but we have so few anophelines on this base that I don't get enough to build myself a good personal collection. Some day I hope to be able to take a few collecting trips back from the reservation area and get into places where they are plentiful. Maybe after a week or so I won't have to go very far. We had terrific rains for a week or more just prior to Xmas day. Pools and lakes were formed everywhere and since no native worked for 3 days over the weekend and only a handful are expected out during the next few days, we may find ourselves invaded."

1st Lt. Harold T. Peters, Station Hospital, Camp Pickett, Va.

Harold had a leave to visit Minneapolis about three weeks ago and we enjoyed a visit with him very much. You can guess what his business was in Minneapolis. As far as he knew at the time he was here he expected to be at Camp Pickett for some time.

Allan Peterson, P.H.S. (R), State Board of Health, Jackson, Mississippi,
February 1, 1943.

"I just have time for a note but I do want to tell you that my commission as assistant entomologist in the Reserve Corps of the USPHS was approved a short time ago and I reported for active duty today. I will remain in Jackson with the same duties as previously. I feel so fortunate to be able to continue with entomological work. Now that entomologists are being commissioned I suspect that some openings for entomologists exist in the Malaria Control in War Areas program as some of the entomologists have been drafted."

Major C. B. Philip, Virus and Rickettsia Division, Army Medical School,
Washington, D.C.

No news from Dr. Philip since the 4th Newsletter.

Harry D. Pratt, U.S. Public Health Service, San Juan, Puerto Rico - No news from Harry.

A. Earl Pritchard, Base Hospital A.P.O. 848, New York, N. Y.

We had a letter from Earl dated January 13 regarding a manuscript which he had submitted some time ago for publication but he did not include anything for the Newsletter. We hope that by the time it comes around again that we will have a long letter from Earl.

2nd. Lt. Don Quimby, 216th Coast Artillery, U.S.A., San Francisco, Calif. - Dec. 23, 1942.

"Today I finished my fifth week in the O.C.C. There is never a dull moment here as there is always something to be done. Of course, we are primarily concerned with A.A. Artillery but there are numerous other things thrown in. It seems that an officer should be pretty well posted on everything pertaining to Military procedure. Anyway it seems that way from the volume that is thrown at us.

"In many ways it seems as though I'm beginning all over again as artillery fire is about as far from my previous work as anything you can imagine. You would be surprised to know just how much information must be gathered in order to shoot down an enemy plane. The equipment is excellent and in many respects "intelligent". If the men turned out here prove to be as good as the equipment there will be many Jap Zeros and other Axis aircraft come tumbling down before this war is over. Without doubt our A. A. Artillery is superior to any other. This has been proven in various combat zones. (So I am told).

"According to reports or rumors this school here is about the most difficult of the O.C.S. schools and I'm beginning to believe it. The fact that it is so technical and at the same time a combat unit probably accounts for it. In addition to knowing your A. A. Artillery you must know your soldiering as well for you have got to be superior to your men if you are to set an example. At first the military angle had me worried and I figured I'd be sent back to the "boot school" for some additional military drill but so far I haven't. At that though you are never safe so long as you are here. Some one is constantly watching and heckling you. The turn over is terrific. Only about 50% of our original section are still with us, the others having gone the "boot school" and "casualty battalion" routes. As fast as they are dropped, however, new ones or I might say old ones from boot school or casualty battalion are added.

"Despite the fact that it is tough I like it o.k. and hope to be graduated. I thought about trying for the Sanitary Corps or some other branch related to the biological field but decided I'd just as soon or rather be here. Just what my destination will be when I finish here remains to be seen. Many of the fellows are sent to foreign countries and others to training camps here in this country. As it stands now, a 10 day leave is granted upon graduation from the school. This may be changed, however. If it isn't and I get out, I plan to come to Minneapolis and will therefore get to see you."

"The weather here is everything but delightful - rains a lot and it is always cloudy and damp. I have had a very bad cold or the flu for two weeks but it is on the way out now. I was afraid for awhile that I would have to drop out for a few days.

"We are 30 miles from Wilmington and it is a job to get there. So far I haven't attempted it and probably won't. Last evening I stood in line for two hours at the barber shop - at the end of that time I was 26th in line so I gave up as there was only one barber."

Don Quimby was back in Minneapolis for a few days recently and visited at the Farm. He has received his commission and is on his way from North Carolina,

where he was graduated from the anti-aircraft school at Camp Davis, to San Francisco where he is next to be stationed. He knows nothing about his future assignments, not even whether it will be in this country or not.

Pfc. Morris Rockstein, Base Weather Office, Bradley Field, Connecticut.
Jan. 16, 1943

"If nothing untoward occurs, I shall be in forecasting school this coming February (the second of the month) so I have very little time to spend out here and I am 'taking off' for New York and Red Bank as frequently as 'breaks' in our schedule come up. I will most probably be going to Grand Rapids where the Weather School as already moved its Meteorology Cadet Training branch. The Forecaster's Course is 5½ months long and reputedly the "toughest" of all Air Force Technical Training courses. It promises to be a long hard stretch, but the comparative ease of weather observing is no life to a soldier, and if my own training does fit me for forecasting, I'll do my best for the ultimate victory in a small way. You know, a forecaster can (and does) keep majors and / or higher ranking officers grounded, if he feels weather conditions warrant it. Although non-combatant in nature, the job takes us all over the world to lonely outposts and is an important auxiliary to flying - tying in with instrument flying, especially.

"Naturally I have been able to see a lot more of planes, landings, etc. and it's quite interesting in its newness. However, it is a little discouraging not to be able to think entomology much, but I depend on the newsletters, the "Annals" and "Science" weekly for my biological news."

Morris Rockstein, February 1, 1943

"It seems that after one communication from Regional (the second Weather Headquarters in Ohio to which I am actually attached) stated that two other men and myself were likely to go to Forecaster's School, when orders came through three entirely different men were sent. We all feel that the grades on our entrance exams, and previous training were not the main factors in the selection - since we all felt we had done pretty well on the former. But the methods of our Regional are quite a mystery even to our commanding officer and administrative clerk. Our staff has suddenly been reduced by 6 and we are gradually dwindling to a skeleton of our former effective force. So we are very much pressed (by an inexperienced staff, as well as by our reduced number) for time on our shifts.

"To add to our uncertain presence of mind, I find that my OCS papers have been floating around and are now about 500 miles away from where they should have been sent - which means a delay of weeks - what with the slowness and red tape the Army is noted for.

"All in all, I console myself with the fact that I do my best and the Army thinks that I am doing what I am best suited for. Also I am able to see Elaine every so often for 2 days and a 10-day furlough is coming up, unless I ship, next week.

"Our work is ever-changing in nature with the change in shifts and the amazing New England weather - imagine 10-14 inches of snow followed by freezing rain! We still have plenty of snow left but clear weather today. Meanwhile I lounge around with weather books and "Science" weekly to keep me occupied."

Morris Rockstein, February 2, 1943

"Our lives as weather men a gradually being more and more by calisthenics, Base Defense, Gas Mask Lectures, classes in Meteorology, besides our duties in barracks as firemen, latrine or room orderly. We're expected to sleep 'around' these hours even if we come off shift after a night shift.

"If all goes well, however, I hope to start a 10-day furlough on the 10th of February, and, if I can, I plan to take a trip South (by train) with Elaine. I'm so sure of shipping somewhere one of these weeks that the uncertainty of the future weighs more heavily on one's mind than the actual moving. Once one gets into the army, he seems to be in the mood for moving and wanderlust (under army direction) becomes instilled in most soldiers by the frequent movements to which they are subjected.

"While none of us in the Army are really optimistic about an early success the ultimate end is indubitably going to be victory.

"I know that you folks back home are feeling the pinch of rationing more and more these days. The consolation you may find in knowing that the members of the armed forces are well fed, clothed, etc. at your expense may help boost home morale.

Captain Philip C. Schroeder, R.O.T.C., University of Minnesota, Minneapolis, Minn.

Phil is still teaching on the Main Campus and we hope that he will contribute to the Newsletter by the next time one is issued.

Irvin Tarshis - Army address unknown.

1st. Lt. Ernest R. Tinkham, Station Hospital, Fort Dix, N. J.

"Tink" received his commission of January 6 while he was still stationed at Fort Lewis, Washington. He was ordered to Fort Dix, N. J. and was able to spend a day visiting the division here at St. Paul while en route. It was fine to see "Tink" again and to know that he is getting along so well.

E. R. Tinkham - February 6, 1943

"Well here I am at the end of the third week of school. Time certainly goes and I have been most busy. We have had so many lectures on all types of disease, V.D., army organization, control of flies and mosquitoes, camp sanitation, map reading and the like. We have also had, especially this week, sanitary inspections of barracks and mess halls, cafes and cafeterias, and evacuation inspections. We were all up at 4 a.m. this morning for an evacuation inspection but I hear a really big one is coming along soon which will mean most of the night I guess. Also I have been on duty twice, once each of the last two weeks and our job then is inspecting troops as they come in singly or by trucks or by the trainload. In the latter case we have to contact the train commander and the Medical Officer in charge to find out whether any one on board has been sick, whether there was any contacts with communicable diseases prior to their departure from the last camp, and other questions of a similar nature. Sick men are taken to the hospital and should there be any cases of contagious disease the troops in actual contact are put in quarantine for a given period of time.

"Five of our men have been assigned but three of the first school still await assignment. It is rather surprising that at noon today I should receive my assignment some two weeks in advance. I am ordered to air flying school in Florida and to report about February 20."

1st Lt. Franklin G. Wallace, 1st Medical General Laboratory, Fort Sam Houston, Texas

Lt. Wallace is still at Fort Sam Houston so far as we know. We have had no news from him for the newsletter.