NEWS AND NOTES

AUSTIN W. MORRILL, JR.

FOR AN OPENER, WE HAVE A JINGLE OR TWO SUBMITTED BY EX-PREXY MO HIRST, the first of which goes.

A wonderful bird is the chigger,
And oh! how she digs with her digger.
Perhaps the mosquiter,
At digging can beat 'er
But damit the skeeter is bigger.
—Anonymous

The other one is as follows:

It's not his *bite*
That spoils my night.
It's his eternal buzz-zz-z
That duzz-zz-z!

This last is by Winifred Fletcher, a woman, and we think it shows obvious sex-loyalty. It's the female mosquito that bites, *Miss Fletcher*, not the male and we hereby put you on our list to receive educational literature from the American Society for the Suppression of Calling Mosquitoes "He."

WHILE WE'RE STILL IN THIS FOOLISH MOOD IT IS PROBABLY A GOOD TIME TO TELL YOU THAT UNCLE HARRY HAS UN-RETIRED AGAIN. Yup. It's like we said, and we noticed nobody stepped forward to put up any bets on how long *that* retirement would last!

HARRY'S new job is as Vector Control Specialist with the Coos County Health Department, and it's been three months to a day. (Harry has plans for Spain and a freighter trip after his next retirement, but that's quite a ways away.) His address is Route 2, Box 598, Coos Bay, Oregon. One of his last acts before the brief retirement was to issue a colorful and informative bulletin to Washington Staters on *Mosquito Prevention and Control*. This was patterned on the sort of bulletin so effectively utilized by the California State Bureau of Vector Control and the California Mosquito Control Association, but was more detailed in its discussions of elementary aspects, as adapted to our novice Sister State. It's extension bulletin No. 534 of the State College of Washington, Pullman, Wash.

NOT TO BE CREPT UP ON, CHET ROBINSON OF ALAMEDA COUNTY (CALIFORNIA) has put out another, also colorful and eye-catching, bulletin which is untitled but blazons the messages that "Mosquitoes are Unnecessary" and "Mosquito Abatement Pays Dividends." The CMCA-BVC bulletins are called, "Mosquitoes about the Home" and "Mosquitoes are Your Responsibility," incidentally, and are said to have been most helpful.

ARCHIE HESS, OUR NEW PREXY, WRITES THAT HE IS NOW WELL AND FIT AGAIN AND EXPECTS TO REMAIN SO, aside from having to ingest a few pills now and then. He had alarmed us all by turning in at the N.I.H. hospital, Division of Arthritis and Metabolic Diseases, in Bethesda for a check-up and treatment, but says that, since his condition was diagnosed at an early stage, there is no indication of permanent injury. Well, that's a big relief, Archie, and we wish for you only the chocolate and peppermint flavored pills and no more aches and pains. We had asked him to give us a run-down on his new Encephalitis Research Center at Greeley, Colorado, because we knew you'd all be interested to hear about it and here is what he had to say:

"The new encephalitis research station of the U. S. Public Health Service, Communicable Disease Center, at Greeley, Colorado, is now fully staffed and in operation. The new station represents a consolidation of activities and staff previously located at Logan, Utah, and Greeley, and will form a new 'Encephalitis Section' under the Technology Branch. The primary function of the Section is to conduct field and laboratory research on the natural history and control of the arthropod-borne viral encephalitides and related problems associated with the development and utilization of water resources.

"Dr. Archie Hess, President of A.M.C.A., is Chief of the Section, Dr. Louis C. LaMotte is Chief of the Virology Unit, and Marshall B. Rainey is Chief of the Biology and Control Unit; both of these men are members of A.M.C.A. Three field stations are operated under the Greeley headquarters: the Bakersfield, California, Field Station under the direction of Dr. R. E. Bellamy; the Wenatchee, Washington, Field Station under the direction of Virgil Miles; and the Taunton, Massachusetts, Field Station under the direction of Dr. Richard O. Hayes. All three field station directors are A.M.C.A. members.

"Dr. George Browning is Medical Epidemiologist for the Encephalitis Section, working out of Greeley headquarters. Summer field study areas are maintained in eastern Oregon; northern Utah; Grand Junction, Colorado; Fargo, North Dakota; the lower Rio Grande Valley; and the Texas Panhandle.

"In addition to the research staff, a technical assistance staff of biologists and engineers from the State Aid Section is assigned to the Greeley Station. Louis J. Ogden and Fred C. Harmston are the principal members of this staff; both are members of A.M.C.A. Among their other responsibilities is to develop joint recommendations with State Health Departments for the prevention and control of mosquitoes and other vectors associated with Federal water resource development projects.

"Any members of A.M.C.A. who happen to be in the Denver area are invited to visit the Greeley Station."

Its sounds mighty wonderful and we know that a lot of us are going to be the beneficiaries of all this in the near future. Seems as if it'll be quite an idea to add Greeley to the itinerary on that vacation trip to the Great Open Spaces, and we'll bet a lot of folks accept that invitation.

WE DON'T KNOW WHY THEY ALWAYS TALK ABOUT FLIES WHEN TELLING HOW MANY ONE PAIR COULD PRODUCE IN A SEASON BECAUSE MOSQUITOES LAY JUST ABOUT THE SAME NUMBER OF EGGS and anyone who has fought *Aedes* will attest that a high proportion of them hatch. But anyway, the Shell Oil Co's *Scan* says that a pair, if unchecked, can produce 191,010,000,000,000,000,000 between April and August, a somewhat higher figure than the August to June figure previously quoted here (cf. *Mosquito News* 18(3):260). *Scan* quotes the National Agricultural Chemicals Association as saying that this number would cover the earth to a depth of 47 feet. This seems like a good example of the dangers of everybody quoting everybody else. Any mosquito control man knows they wouldn't be covering the earth . . . they'd be up in the air buzzing around our heads!

ANOTHER KIND OF STATISTIC, HOWEVER, IS QUOTED FROM W.H.O. in the same source to the effect that 10 years ago malaria struck down 300 million people a year and caused 3 million deaths. Through the malaria eradication program, which has been, as we all know, sparked by many AMCA members, these figures have already been cut in half. Aside from the great contribution being made to mankind, the campaign is wiping out serious economic losses. In India alone, it is estimated, malaria has been causing a loss of $500 million a year in productivity. But the total cost of malaria eradication in India, anticipated by 1965, is estimated at only $114 million. You see, we are not alone.

BRUCE BROCKWAY IS LIVING UP TO EXPECTATIONS AS AN ENERGETIC MEMBERSHIP CHAIRMAN and has sent us a copy of a letter he has sent to members who had let themselves get sort of inactive, and also to the regional directors. His letter, accompanied by a self-addressed envelope, was breezy and informal and friendly, like Bruce himself, and we hear that it was pretty effective, too. It's easy to sort of get in the habit of sitting back and letting things slide, sometimes, but even AMCA, with all its fine, capable members, can't afford having any member come to the conclusion he's *dispensable*. We can all help Bruce help *us* in this.

The Skeeter OF THE VIRGINIA MOSQUITO CONTROL ASSOCIATION reports proudly that the movie, "Mosquito Control in Virginia" is now completed and available for showing. ROLLIE DORER was technical advisor and practically the entire mosquito control personnel of Tidewater Virginia served as actors and prop-men. Mr. Wade H. Williams, the distinguished narrator of the open air drama, "The Confederacy," presented each summer at Virginia Beach, is the narrator of the film, which is in full color and runs about 12 minutes. It is expected that prints will be seen by many thousands of people in the months to come and that it will play a vital role in public education and the creation of sound public support.

A PARIS GREEN LARVICIDE MADE BY COATING VERMICULITE GRANULES WITH A STICKER AND THEN WITH PARIS GREEN is also reported in *The Skeeter*, which says the operation is done with a small cement mixer which can turn out about 32 pounds in 20 minutes. The first reports, it adds, on its use in the field sound good. Meanwhile, we have heard also from others who report that the use of the vermiculite was proving a most effective carrier. Many of you no doubt have read the papers on the subject in *Pest Control* for April by AMCA'ers WILLIAM R. HORSFALL, OSCAR V. LOPP and W. J. BUCHANAN. This was the issue distributed at the Salt Lake City meetings. Anyone care to comment? We'd like some Operational Notes, you all.

LES BRUMBAUGH AND HIS EFFICIENT SAN JOAQUIN MOSQUITO ABATEMENT DISTRICT (California) were the subject for an extensive write-up in the *Stockton* (Calif.) *Record* recently. In addition to big pictures of Les at a mosquito light trap, a three-wheel motorcycle catch-basin spray unit at work and a knapsack sprayer being wielded on a ditch by an exchange student, a Mr. Yon Setyamono of Indochina, there was a full column and a half coverage of a recent tour Les led his trustees on in a "mosquito hunt." Only four years old, Les's District is a highly active one and the cooperation of the citizenry has already become so good that the few lapses are glaringly apparent. The newspaper article pinpointed some of these and offered a good example of how the public can be made aware of what it can do to promote this general welfare.

BILL BICKLEY, WHO HAS SENT US SO MUCH GOOD MATERIAL, HAS FORWARDED THE FOLLOWING REVIEW which is on a subject that is of much concern to most workers:

" 'Controlling Plant and Animal Pests in Farm Ponds with Copper Sulfate' is the title of a booklet presented by the Phelps Dodge Refining Corporation, 300 Park Avenue, New York 22, New York. This booklet is available upon request from the Phelps Dodge Corporation. There is no mention of mosquitoes. However, mosquito control workers

frequently need to eliminate algae or other aquatic plants in fresh water ponds, since many mosquito larvae are protected by some of these plants. The booklet is beautifully illustrated and gives specific information on concentrations of copper sulfate for controlling different kinds of plants. It also explains how to determine the surface acreage and the approximate volume of water in a pond. Incidentally, copper sulfate is useful in controlling leeches."

Thanks, Bill. We have often been asked for information on this subject and imagine others have too. Snails as well as leeches might have been added. These are sometimes a matter of worry because of "swimmer's itch," although fortunately not because of schistosomiasis here in North America, at least; we have even been called in to control clams being drawn into a fire-sprinkler system and growing up big enough to clog the nozzles. Mosquito controllers get into everything, sooner or later.

BILL ALSO SENT US SOME INFORMATION ON A LUNCHEON HELD RECENTLY IN WASHINGTON D. C. by the National Agricultural Chemicals Association, in conjunction with the Entomological Society of America, on the subject of "Research Progress in Insecticide Resistance." It was the sort of meeting that makes you wish we already had developed television in this country. Luncheon guest speaker on the first day was TONY BROWN who discussed the aspects of resistance in the WHO programs with which he is so familiar. BILL MCDUFFIE, KEN QUARTERMAN and E. F. KNIPLING (whom we'll call *Knip* while we're name-dropping, because that's what we call him) all had discussions of the resistance problem, as did many other famed research workers like Dr. R. L. Metcalf, Dr. C. W. Kearns, Dr. James Crow and many others who are not AMCA'ers but whose interests nonetheless include mosquitoes and give great aid to those of us who are more deeply concerned with them. Dr. Justin Andrews, known to many of us who were in military malaria control especially, remarked on the fact that the resistance of bacteria to antibiotics might well have a relationship to our understanding of resistance in insects and pointed out the continuing need for additional work in insect physiology. Research is no longer an "ivory tower" and an impractical matter of no concern to "practical control men," as none of us needs to be reminded. It was also pointed out by one of the spokesmen for the chemical industry that currently over $20 million has been spent in research on pesticides of recently developed types.

GEORGE A. THOMPSON AND CHET ROBINSON got together in their reports for the past three months by showing that you just can't please everybody. George's plaint was that they had too much rainfall; Chet's, that they had too little. George had salt marshes diluted and breeding *Culex* and influxes of adults from rice paddies. Chet had catch basins. Both had situations well in hand.

DON GRANT, IN ADDITION TO HIS OTHER DUTIES, AT THE SAN MATEO (CALIF.) MOSQUITO ABATEMENT DISTRICT, IS CHAIRMAN OF A RESEARCH COMMITTEE SET UP BY THE C.M.C.A. and he has given us a small peek into the recent workings of that committee. They conducted a poll of the control men to find out in what fields they felt a need of further research. Naturally resistance is a growing and ever-present problem haunting us all, and it is not surprising that toxicology and biological control led the list. Source reduction methods, physiology and ecology followed closely, with the development of new equipment and population measurement techniques in the also-ran category. Some of the faithful laborers in the field simply hollered, "More research," apparently feeling with a certain amount of desperation that we're already doing all we *know* how to and it ain't enough. *We* think that it's like our preacher said last Sunday, most good folks tend to think they're sinners, and we think most mosquito workers in the middle of the summer feel that they aren't making half the headway they should. But the world does move, and we *are* making progress.

GLENN COLLETT, WITH DON REES AND LEWIS NIELSEN LOOKING OVER HIS SHOULDER, attests to this last fact in his Twenty-ninth Annual Report. A lot of members who had the privilege of seeing Glenn's place during the AMCA meetings this year will be interested to read that his District has secured the cooperation of the Gun Clubs in water level management and that the production of *Aedes dorsalis* and *Culex pipiens*, hitherto principal species, has been steadily reduced until they are now less than half of their former densities. Nevertheless, Glenn is not satisfied and points to the newly arisen problems of *Culex tarsalis* and *Aedes nigromaculis*, both augmented by abundant water from the mountains and deficient rainfall in the summer, causing over-irrigation, as "failures" of control. (cf. "Sinners," above.) By the vigorous action he is taking against these new menaces, we know he'll soon have *them* in retreat, too.

FRED STUTZ SENT A FINE ANNUAL REPORT FOR 1958 FROM HIS DADE COUNTY (FLORIDA) DISTRICT, which announced among many meaty statistics the sinister arrival of an anti-mosquito-fish fish. These science-fiction monsters turned out to be no product of nuclear fallout but an import from Yucatan, brought in wittingly by a fancier, like the gypsy moth, and then turned loose when he found no sale for them. Their impact on Fred's program has yet to be evaluated. He also has giant tree holes 5 to 25 feet in diameter for his tree-hole mosquitoes, with only the bright spot that the holes are so big that fish can get in and eat the mosquitoes! This brings them back to the anti-

fish fish. Fred reports his airplane spray program averaged 20 to 24 cents an acre, as against 21 for turbine ground equipment. This is quite similar to the 29 cents per acre ED WASHBURN estimated in his Turlock (Calif.) Mosquito Abatement District report for 1958, which he dropped in our lap just before taking off for Liberia, and the 20 cents their new District-owned plane has cost JOHN BRAWLEY's Kings County (Calif.) Mosquito Abatement District.

IN RESPONSE TO OUR WHO'S WHERE QUERY OF LAST ISSUE, THE CALIFORNIA BUREAU OF VECTOR CONTROL ANNOUNCES SADLY that they are beginning to wonder where everybody went, too. At the moment they have the following tally on their wall like a wartime service flag (no gold stars yet, thank goodness):

ERNIE MEYERS left for Indonesia in July; RUSS FONTAINE is still in Ethiopia (back next year, though); ED SMITH has gone back for another try at Indonesia; DON GREEN has gone to Brazil; GERRY BROOKS, has gone to Iran and thence to Ethiopia; HAL BRYDON is in Nepal; JOHN STIVERS has gone to Nicaragua; ED WASHBURN has gone to Ethiopia and ED LOOMIS has just left for Indonesia. . . .

It looks as if the next AMCA meetings might have to be in either Ethiopia or Indonesia, if this sort of migration continues.

Well, we're going to start off our Who's Who with ED LOOMIS anyway, *in absentia* or not. We had gone to all the trouble of researching him already, and picked up the phone to find his birthplace and found . . . lookie. . . . no Ed!

SO WE DON'T KNOW WHERE ED LOOMIS WAS BORN but he was in California in time to go to school there. He was President of the Student Body in Junior High and High School in Oakland, giving previews of that old personality he is now so famous for. His life was largely that of athletic hero, what with varsity baseball and basketball and all, until the Navy stepped in and tapped him for two years in the South Pacific, where he rose to be an AMM 1/c and presumably learned that the world also contained mosquitoes. Back to the University of California he came to get his B.S. and then go on to graduate work and it was at this time the Bureau of Vector Control twined itself around his heart. In 1947 he became a part-time entomologist with the Bureau and in 1952 was made Associate Vector Control Specialist ("1/c," he says). For the past several years he has been Senior Vector Control Specialist at the Fresno laboratory, working on problems of measurement of mosquito populations. Ed is also a member of the American Association of Parasitologists, the Pacific Coast Entomological Society, and the Society of the Sigma Xi.

GORDON F. SMITH whom people kept mixing up with Gordon E. Smith of TVA and even with Lester Smith, at the Utah meetings, probably because they're all sort of modest and quiet, has been one of the California Mosquito Control Association's hardest working members, Vice-President in 1958 and now President in 1959. He was born in Berkeley in 1918 and received his BS in entomology from the University of California. After being with the 14th Malaria Control Detachment of the U. S. Army in the Southwest Pacific and Philippines, he was manager of the Kern County Mosquito Abatement District for ten and one-half years and then moved to the East Side MAD, at Modesto, where he is now. He is a member of the Entomological Society of America and his hobby is wood working, and he's an Optimist . . . so you see that he's a nice balance of the contemplative and studious and the practical and the gregarious.

LEWIS T. NIELSEN WAS BORN IN 1920 IN SALT LAKE CITY where he now lives and received his B.A., M.A. and Ph.D. degrees from the University of Utah, after also doing graduate work at Montana State University. He served in the Army Medical Service Corps (then known as the Sanitary Corps) from 1942 to 1945 and is still active in the Reserve, being seen from time to time on active duty as far away as the Presidio of San Francisco. He has done much fine work in mosquito taxonomy, particularly that of mountain species of *Aedes*, and also in the related fields of aquatic botany and aquatic insects. He has been a consultant for the Salt Lake City Mosquito Abatement District since 1938 and is Assistant Professor of Entomology at the University of Utah. He served as President of the Utah Mosquito Abatement Association in 1957 and 8 and has been a prime mover in the progress and activity of that very active and vigorous Association. His hobby is photography and he excels at that, too, or else he is that rare form of photo hobbyist who knows how to weed out all his bad pictures!

EDMUND J. STANSFIELD

Another loss to the ranks of mosquito control workers and the AMCA occurred with the death of Mr. Edmund J. Stansfield on February 25, 1959. He was manager of the Greater Winnipeg Mosquito Control District, a valued contributor to *Mosquito News*, and an active participant in AMCA meetings.