THE MONTH AT CALTECH

Scholarship and the Citizen

IN AN ADDRESS on "Scholarship and the Citizen," delivered at the Matriculation Day ceremonies of Pomona College in Claremont, Calif., last month President Du-Bridge had some pertinent and pointed remarks to make on the subjects of the hydrogen bomb and the National Science Foundation Bill. We quote:

"The atomic bomb, and now the proposed hydrogen bomb, have served to shock the American people into the realization that science and national affairs are no longer two separate and mutually exclusive fields of human endeavor. Each has its impact upon the other.

"Science affects national affairs because nuclear energy has now become the business of every American citizen. The responsibility of developing atomic energy for both peaceful and military purposes is the exclusive responsibility of the United States government—that is,

of you and me...

"... When the President announced that he had issued orders to continue the development of this weapon (the hydrogen bomb), he did not provide for the release of information which would enable the public to understand something about the nature of the weapon or the reasons why it was necessary to develop it. As a result, the public press has been filled with the wildest sort of speculations, and it is impossible for the layman to determine which of the stories he reads has any resemblance to the truth. Obviously, informed public opinion cannot be built on the basis of misinformation. In a misguided attempt to keep information from potential enemies who already have it, we are keeping it from the American people who desperately need it in order to think and act clearly on urgent national and world problems.

"The second result of our secrecy hysteria has occurred more recently. For four years Congress has been considering various bills to establish a National Science Foundation to serve as an agency to stimulate the continued growth of basic science in this country. It is rather astonishing that there is no Federal agency authorized to give broad attention to the problems of basic science, and except for the important work of the Public Health Service, the attention of the Federal Government is devoted pretty largely to those areas of science having

military potentialities.



At Caltech's virus conference—F. C. Bawden of England; Conference Leader Max Delbruck; Wendell M. Stanley of the University of California.

"Partly for this reason, and partly because of the great attention which has been given to the military weapons which modern science has made possible, there is apparently a feeling that all of the field of science must somehow be kept secret. As a result, when the National Science Foundation Bill finally passed the House of Representatives on March 1 there were attached to it three amendments having no relation to the purpose or function of the Foundation, and which might easily, indeed, kill the whole idea of the Foundation itself. These amendments parade under the euphonious name of "loyalty provisions" and purport to insure that all scientists connected with the Foundation are loval citizens of the United States. Now everyone, of course, is in favor of loyalty, and consequently these amendments apparently pass without much opposition.

"The careful analysis of these amendments, however, shows that they actually stem from a misguided attempt to keep secret the work in nonsecret fields and the result of enforcing these provisions, as they are now stated, would be to impose qualifications concerning political beliefs and associations upon men working in the field

of science.

"Now science has been built up on the theory that the political beliefs of the scientist have no relation to the value of his scientific work. To retain this policy is essential to the freedom of all American citizens.

"You, as students, will be especially interested in the provision that imposes political tests on students who wish to study science under a Foundation scholarship. You would normally expect that your qualifications for scholarship would depend only upon your intellectual competence and not upon the political organizations to which you belong, or to which you once belonged in the past. The original idea of the Science Foundation was that it was essential to national welfare to encourage competent young students to enter the field of science. But what student will be anxious to go into science if he knows that the first thing he must undergo is an FBI investigation, and that his opportunities for securing scholarships, and eventually a job, will depend upon, not his scientific ability, but his political beliefs and activities? Hitler excluded from the German universities those whose political beliefs were not liked. Stalin is doing the same thing. And now we in the United States of America propose to follow this same path.

"Scientists and educators throughout the country are organizing a concerted effort to have these amendments killed before the final bill is passed. They should have the united support of every thoughtful citizen."

First Virus Conference

Twenty-two nationally prominent research scientists met at the Institute last month for a three-day conference covering the entire field of viruses. It was the first time scientists working on the three different groups of viruses—those which attack plants, those attacking men and animals, and those which attack bacteria (E & S, March '49; Feb. '50)—had ever formally gathered together. The conference was under the direction of Dr. Max Delbrück, Professor of Biology at the Institute, whose special field of interest is bacterial viruses.

In recent years man's bacterial diseases have been

brought more and more under control by antibiotics like penicillin and streptomycin. As a result, virus diseases (like polio, influenza, Q fever, the common cold) are being pointed up; few of them are susceptible to treatment by the antibiotics.

The control of other diseases in plants has pointed up vi as diseases there too; most plants didn't use to live long enough to get them. Today the annual loss from plant and animal viruses in California alone runs to \$100.000.000.

Viruses may, and do, differ enormously both physically and chemically, but—whether they attack plants, man, animals or bacteria—they have a good many features in common and show a remarkable similarity in their behavior. Thus, virus researchers—whether they work in the fields of agriculture, forestry, animal husbandry, medicine, or pure research—have a common problem. The Institute's virus conference, in recognizing this fact, is a heartening indication that we may someday find a way to launch a common attack on the virus.

Student Officers

The Newly-Elected officers of the Associated Students for 1950-51 took office this month, at the start of the third term. The line-up: President, Ulrich Merten; Vice President, Oliver Gardner; Treasurer, Peter Mason; Secretary, Stanley Groner; First Representative, Robert Davis; Second Representative, Patrick Fazio Jr.; Publicity Manager, Robert Stanaway; Athletic Manager, David Hanna; Rally Commissioner, Frank Ludwig; Yell Leader, Charles Miller; Business Manager of the California TECH, Charles Steese; Editor of the California TECH, Robert Kurland; Business Manager of the BIG T, Charles Walker; and Co-Editors of the BIG T, John Boppart and Bernard Engholm.

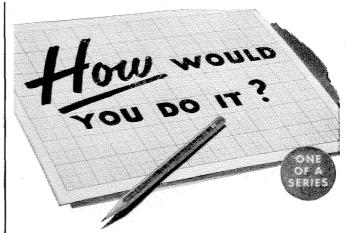
Honors and Awards

- DR. ALFRED H. JOY, Research Associate in Astronomy and retired Mount Wilson and Palomar Observatories astronomer, was presented the Catherine Wolfe Bruce Gold Medal for 1950 at a meeting last month of the Astronomical Society of the Pacific in San Francisco. Dr. Joy, who received the award for his outstanding work in the field of stellar spectroscopy, is the 43rd astronomer to receive the medal, and the sixth member of the Mount Wilson Staff to be so honored.
- DR. ALFRED STERN, Lecturer in French, German and Philosophy, has been awarded the Academic Palm and the title of Officer of the Academy by the French government, for "his outstanding contributions to science, philosophy and especially to French culture."

Millikan's 82nd

ON HIS 82ND birthday, March 22, Dr. R. A. Millikan, badgered by the press for his comments on the hydrogen bomb, complied with the succinct statement: "I am not yet convinced that it is at all certain we can build such a bomb." He was careful to add, however, that "we must be modest in skepticism concerning the hydrogen bomb, as the 'impossible' has been achieved before."

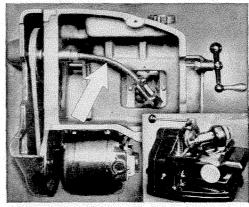
Dr. Millikan celebrated his birthday in typical fashion by delivering a speech before the faculty of Fresno State College—his fourth lecture in a three-day stay in Fresno—after which he flew back to Los Angeles and arrived home in time for a small birthday dinner party.



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