

# THE MONTH AT CALTECH



Oppenheimer

## Distinguished Visitor I

■ As the first of a series of distinguished physicists to visit the Institute this year, Dr. I. I. Rabi, Executive Officer of the Department of Physics at Columbia University, came to Caltech last month chiefly to conduct a series of six seminars on nuclear physics. On at least two occasions, however—in an evening talk for members of the Athenaeum on “The Atomic Armaments Race,” and in a subsequent conference with the press—Dr. Rabi addressed himself to the subject which most laymen are most interested in hearing most physicists discuss: the bomb.

If nothing else, said Dr. Rabi, the fact that Russia now has the atomic bomb should encourage us to re-evaluate our foreign policy. Ever since the Russian rejection of the Acheson-Lilienthal Report proposals, it has been our *declared* policy to continue to attempt to abolish the use of the bomb. But our *actual* policy has been to attempt to contain Russia within its present boundaries—counting on our possession of the bomb to enforce that policy.

Now that Russia has the bomb too, what do we do? Build bombs faster? Russia would be sure to do the same thing. The effect would only be an increase in our insecurity.

Thus far we have proceeded along only one line of policy in dealing with Russia. Now we must consider other possibilities. Considering the similarities between

this country and Russia—including the fact that both are large countries, containing every natural resource; and that neither one can attack the other without devastating itself at the same time—we *must* attempt to find some basis for agreement.

But there didn't seem to be any way to reach any agreement, said one of Dr. Rabi's listeners.

“It is like living in the same house with a difficult neighbor during a housing shortage,” said Dr. Rabi. “You still don't want to burn the house down.”

Could Russia, in one surprise attack, bomb enough United States cities to paralyze us and prevent our retaliating?

“I'm not interested in whether we are *paralyzed*,” said Dr. Rabi. “I want a policy that prevents this situation entirely—that isn't reconciled to this viewpoint, to be able merely to defend after ten million Americans are dead.”

## Distinguished Visitor II

■ Dr. J. Robert Oppenheimer, Director of the Institute for Advanced Study at Princeton, N. J., and a former member of the Caltech faculty, returned to the campus last month to deliver a series of lectures on the elementary particles of physics. Like Dr. Rabi, he had his day with the press too.

Elementary particles were the last things the newspapermen wanted to discuss with Dr. Oppenheimer at his press conference. And the atomic energy program and the hydrogen bomb were the last things Oppenheimer wanted to discuss with them.

“If I can't talk about these things,” he explained, after dodging half a dozen questions, “it doesn't mean that I don't think I should. For my part, I think our



Rabi

situation would be a lot healthier if a large chunk of the lid could be taken off secrecy."

The press decided to play it safe and ask about new developments at the Institute for Advanced Study. Dr. Oppenheimer told them about the Institute's new electronic calculator, which is more marvelously complicated and faster than any other yet built, and is familiarly known as the Maniac. It can multiply two sets of figures, each containing 40 digits, in one hundred-thousandth of a second.

And what was the value of that?

"Well," said Dr. Oppenheimer, "it provides the basis for wider intuition. By giving a fast answer to a problem that would ordinarily take days or weeks to solve, it provides physicists and mathematicians with relative experience—which is pretty much what intuition is."

Was Dr. Einstein busy these days at the Institute?

He was. In fact, he was "wearing out one assistant after another."

What about atomic power?

"I'm afraid there is an uninformed expectation of atomic power," said Dr. Oppenheimer. "It's still an open question, but I don't think it's an urgent one. There's no great incentive in developing power from the atom in a hurry. We don't know yet how much atomic material is available, or to what extent thorium can be used as a supplement to uranium."

And Russia — what did the scientists think about Russia anyway; didn't they worry about Russia like ordinary people do?

Dr. Oppenheimer answered that one with a parable—about a woman who awoke one night to find a mean-looking, desperate character standing at the foot of her bed, glaring at her with bloodshot eyes.

"My God!" said the terrified woman. "What are you going to do?"

"Madam," the man replied, "this is *your* dream."

## Y Drive

■ FOR MORE THAN two years the Caltech YMCA has been trying to find a larger residence house, closer to the campus. The present residence is not only too small; it's a mile from the Institute.

Early last December, the Board of Directors of the Y, after a house-to-house survey of residences and vacant lots near the Institute arranged to buy a piece of property at 391 S. Holliston Ave., just 400 feet from the campus. Here, the Y planned to build a new residence—the kind it needed, with space concentrated in the living room and dining rooms rather than in numerous bedrooms. The Board decided to take a 30-day option on the property, then try to raise \$15,000 for construction of a residence and \$15,000 more to endow its upkeep.

It looked like a long-term project until a young alumnus of the Institute, who had been active in the Y as an undergraduate and closely associated with the organization ever since his graduation, offered to contribute the \$15,000 for the residence, as a memorial to his parents, if other friends of the Y would come up with the additional \$15,000—*within 30 days*.

That was on December 10, and what happened after that deserves the careful attention of the most experienced professional fund-raisers.

Largely through the efforts of Prof. Royal W. Sorensen, Mrs. Margaret Fleming, Executive Secretary Wes Hershey, and Chairman J. Stanley Johnston, of the Y's Board of Directors the additional \$15,000 was pledged by December 30. And by the time the January 10 dead-

line was reached checks had come in for \$5,000 more, making an available endowment of \$20,000.

Right now a local architect is drawing up plans for the projected residence—gratis, as his contribution to the project. Construction may get under way as early as March, and the residence should be ready by fall.

## Eminent Member

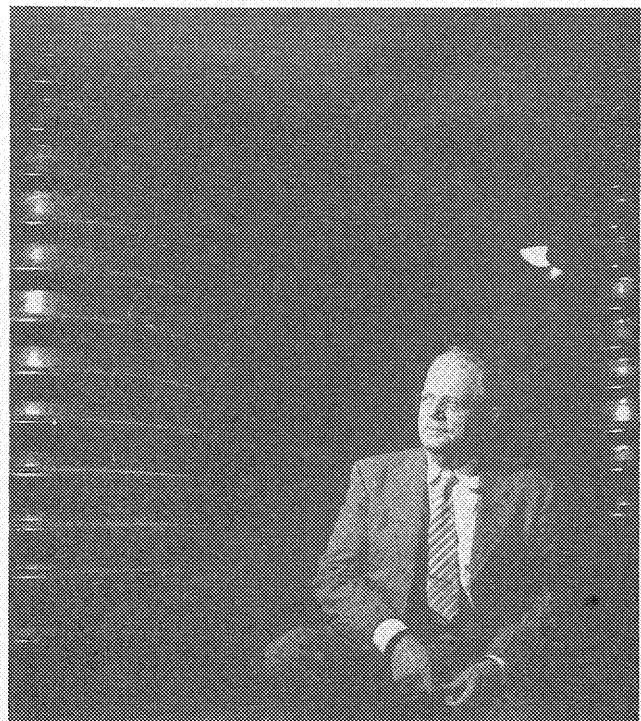
■ ON JANUARY 30, Royal W. Sorensen, Professor of Electrical Engineering, was elected an Eminent Member of Eta Kappa Nu, national honorary organization of electrical engineers.

At the same meeting in New York City two other outstanding scientists were similarly honored—Dr. Vannevar Bush, President of the Carnegie Institution of Washington, who headed the Office of Scientific Research and Development during the war; and Dr. V. K. Zworykin, Director of Research for the Radio Corporation of America.

This is the first time that Eta Kappa Nu has awarded this honor, though it has been provided for in the organization's constitution for many years. For the past 13 years, however, Eta Kappa Nu has annually honored the Outstanding Young Electrical Engineer of the Year. Three of Dr. Sorensen's former students have received this award. In 1948 the honor went to Dr. A. M. Zarem (M.S. '40, Ph.D. '44), head of the Stanford Research Institute's Los Angeles office. In 1942 it went to Dr. John R. Pierce (B.S. '33, M.S. '34, Ph.D. '36), now with the Bell Telephone Laboratories. And in 1940 it went to Dr. Jesse E. Hobson (Ph.D. '35), at that time with Westinghouse, now director of the Stanford Research Institute.

## NACA Advisors

■ SIX MEMBERS of the Institute staff were appointed members of technical subcommittees of the National



Sorensen

Advisory Committee for Aeronautics last month. Professor Ernest E. Sechler was appointed to the Subcommittee on Aircraft Structures and Frank E. Marble to the Subcommittee on Compressors. Reappointments: Dr. Clark B. Millikan (Chairman) and Dr. Hans W. Liepmann, Subcommittee on Fluid Mechanics; Dr. Beno Gutenberg and Dr. Oliver R. Wulf, Special Subcommittee on the Upper Atmosphere.

Members of the NACA's 27 technical committees and subcommittees are selected for their technical ability, experience, and recognized leadership in their special field of competence. They serve in a personal and professional capacity without compensation in contributing their knowledge toward formulation of the research programs required for the country's air leadership.

Responsibilities of subcommittee members include advising on problems related to the assigned technological field of the technical committee or subcommittee; reviewing research in progress both at NACA laboratories and at other organizations throughout the country; recommending research projects; and assisting in coordination of research programs.

### McCallum Fellowship

■ PRESIDENT DUBRIDGE last month announced the establishment of a graduate fellowship for work in the field of biochemical genetics, to be awarded on a competitive basis to a student interested in working toward a Ph.D. degree in this field in Caltech's Biology Division. The \$2,500 fellowship, which is established by the McCallum Foundation in cooperation with the Nutrition Foundation, will go to a student interested in "investigating

the basic ways in which living cells build up and utilize foodstuffs."

### New Arrivals

■ PROFESSOR BENGT STRÖMGREN, Director of the Copenhagen University Observatory in Denmark, has joined the Institute faculty as Visiting Professor of Astrophysics for the second term. A graduate of Copenhagen University, Professor Strömberg served as a lecturer there from 1932 to 1936, when he came to the United States as Assistant Professor of Astrophysics at the University of Chicago. In 1938 he returned to Copenhagen University as Professor of Astronomy, and in 1940 he became director of the University's observatory. His last trip to the United States was made in 1947, when he served as Visiting Professor of Astronomy at the University of Chicago. At the end of the current term at Caltech, Professor Strömberg will go to Princeton as a visiting professor for the remainder of the academic year.

Professor Strömberg is General Secretary of the International Astronomical Union, and a member of the executive committee of the International Council of Scientific Unions.

■ WILLIAM H. GEIS has joined the Geology Division as Lecturer in Petroleum Geology. A graduate of the University of California, Mr. Geis has been specializing in oil-field engineering and petroleum geology since 1916. Formerly assistant to the vice president of the Union Oil Company, he is now a consulting geologist, living in Pasadena.



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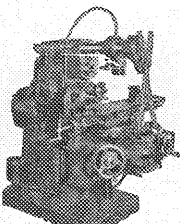
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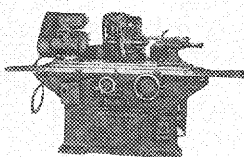
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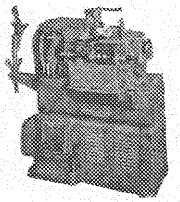
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