

# Letters

San Diego, California

EDITOR:

I am sure that a large number of the alumni who have received advanced degrees from the Institute will be interested to learn of the retirement of Mrs. Jeanne Augé, assistant to the Dean of Graduate Studies. She has made a most important contribution to the administration of the Graduate Office for a period of 30 years.

Mrs. Augé came to Caltech in 1936 as assistant to the first Dean of Graduate Studies, Richard C. Tolman. As other deans came and went, she remained as assistant to each and, until her retirement on April 1, she was the only person to have served Caltech in that capacity.

Her interest in helping to smooth the way for students has been keen. Foreign students naturally have more problems and so have benefited particularly. As a result, she has friends dotted all over the globe.

Her service to Caltech will be missed—as will her virtuosity in accompanying carols on the recorder at campus Christmas parties. Her interest in music and other intellectual activities will keep her busy during her retirement, and everyone who has known her, I am sure, wishes her well.

WILLIAM N. LACEY  
*Professor of chemical engineering,  
emeritus and Dean of Graduate  
Studies, 1946-56.*

Pasadena, California

EDITOR:

Perhaps you would be interested in one of the many letters I received after the Caltech Glee Club's recent tour to the East Coast—this one from Charles V. Decker, Director of Music of the City of Oneida (N.Y.) Schools:

"I want to congratulate you and the Caltech Glee Club for the superior performance you recently gave here. I feel

that it was one of the finest choral concerts we have ever had the privilege of hearing. It was amazing to hear such fine, trained voices in a non-music-major school. Not only was the caliber of the performance superior, but the boys were a fine group of well-mannered and courteous gentlemen. If you are ever in this area again, we would like to have you back for another concert."

OLAF M. FRODSHAM  
*Caltech Director of Choral Music*

Woodland Hills, California

EDITOR:

In *Newsweek* I read *Cal Tech*. In JPL's publication, *LAB-ORATORY*, it was written *CIT*. In your magazine it's *Caltech*. Isn't there a standard way of referring to the Institute?

HAL WYMAN '62

*Officially it's Caltech.*

# Books

## Fluid Mechanics with Engineering Applications

by Robert L. Daugherty and Joseph B. Franzini  
McGraw-Hill .....\$9.95

Reviewed by Vito A. Vanoni, professor of hydraulics.

Robert Daugherty is professor emeritus of mechanical and hydraulic engineering at Caltech. This sixth edition of his book is co-authored by his former student, now professor of civil engineering at Stanford University. It is more than 100 pages longer than the fifth edition by Daugherty and Ingersoll. The material has been rearranged so that it is more convenient for teaching and revised to include a more rigorous and complete development of basic principles. A higher level of mathematics is used.

The book features a complete treatment of turbo machinery as do the previous editions. Daugherty's clear physical approach to the subject and his practice of including data needed to solve engineering problems have been retained.

The reader familiar with the fifth edition will recognize that much of the important material has been changed

very little. The changes which do appear make the book a better one for use in the classroom, but are less important to engineers using it as a reference book.

## Thirty Years That Shook Physics: The Story of Quantum Theory

by George Gamow  
Doubleday & Company .....\$5.95

Reviewed by Frederick J. Gilman, research fellow in theoretical physics

The prolific George Gamow, physicist and writer, has now come forth with a book on the basic ideas of quantum theory and the history of their development during the first 30 years of this century. The book contains the usual lucid Gamow presentation for the educated layman of a scientific theory, in this case the theory and momentous new concepts involved in the development of quantum mechanics. In addition, the book contains personal recollections of important scientific meetings, lectures, and incidents at Niels Bohr's Institute in Copenhagen, as well as Gamow's own drawings of, and anecdotes about the men who created the quantum theory.

For the scientist already acquainted

with quantum mechanics, the most interesting part of the book is to be found in the personal anecdotes, reminiscences, and pictures sprinkled through the book. Where else can one find pictures of Ehrenfest lecturing, the physicists in attendance at the 1932 Copenhagen Spring Conference, and Niels and Mrs. Bohr roaring down a road on a motorcycle?

## The Language of Life: An Introduction to the Science of Genetics

by George and Muriel Beadle  
Doubleday and Co. ....\$5.95

Reviewed by Lois Edgar\*

As every high school student knows today, the science of genetics has changed and expanded immensely in the past 10 or 15 years, since the discovery of DNA.

This new book on genetics for the layman, by the former chairman of Caltech's biology division, Nobel Laureate George Beadle, and his writer-wife, Muriel, is aimed at filling in for

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\*Mrs. Edgar is the wife of Robert S. Edgar, Caltech associate professor of biology.

those who were educated before this new burst of knowledge reached the textbooks—"people whose study of biology culminated, ten or more years ago, with the dissection of a frog."

"If George could explain genetics in terms simple enough for Muriel to grasp, *anybody* could understand it" was the theory behind the Beadles' collaboration. However, they do not oversimplify in the sense of leaving out important parts of the over-all picture. They have written in a chatty, readable style, adding many delightful anecdotes, and avoiding scientific terminology as much as possible.

The first few chapters of the book describe nucleic acids and then present the highlights in the evolution of life: current ideas as to its origin; its evolution from simple nucleotides through genes to multicellular and higher organisms; and so down to man, where a cultural evolution becomes superimposed upon biological evolution.

As might be expected of a biochemical geneticist, much of the latter part of the book deals with DNA, RNA, the cracking of the genetic code, and how it functions. Yet there is a delightful treatment of "classical genetics" from Mendel on, full of personalities and anecdotes, which forms the basis for understanding the more recent work.

The Beadles also consider the impact of this new knowledge on modern man, and, in a chapter titled "Some Unanswered Questions," they discuss some still-mysterious aspects of biology—differentiation, the cause of cancer, the functioning of the brain—and then move on to philosophical implications of the new view of evolution and its conflict with the concept of God.

The final chapter, "A Look into the Future," considers the possibility of man directing his own evolution; the increasing load of genetic defects in the world's population; the increments added to this by manmade factors such as weapons testing and medical x-rays, and the moral questions these raise; the genetics of race; and the problem of differentially expanding population.

These clearly raised questions and the range of possible answers discussed make clear how important it is that the layman understand genetics, and extend the scope of an already interesting book.

### ALUMNUS WANTED

Associate Director for Caltech's Industrial Associates Office. Position involves liaison and organization for technical conferences between research people in industry and Caltech faculty, and requires extensive personal and written communication with technical and administrative personnel at Caltech and member companies. Contact Dick Schuster at Caltech for further information.

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Luncheon first Friday of each month at noon.  
Visiting alumni cordially invited—no reservations.