

# The Month at Caltech

## *National Academy*

Rudolph L. Minkowski, research associate at Caltech and a staff member of the Mount Wilson and Palomar Observatories, was elected to the National Academy of Sciences last month — one of the highest scientific honors in the nation.

Election to the Academy is in recognition of outstanding achievement in scientific research, and membership is limited to 500 American citizens and 50 foreign associates. The election of Dr. Minkowski brings the number of Caltech staff members to 32.

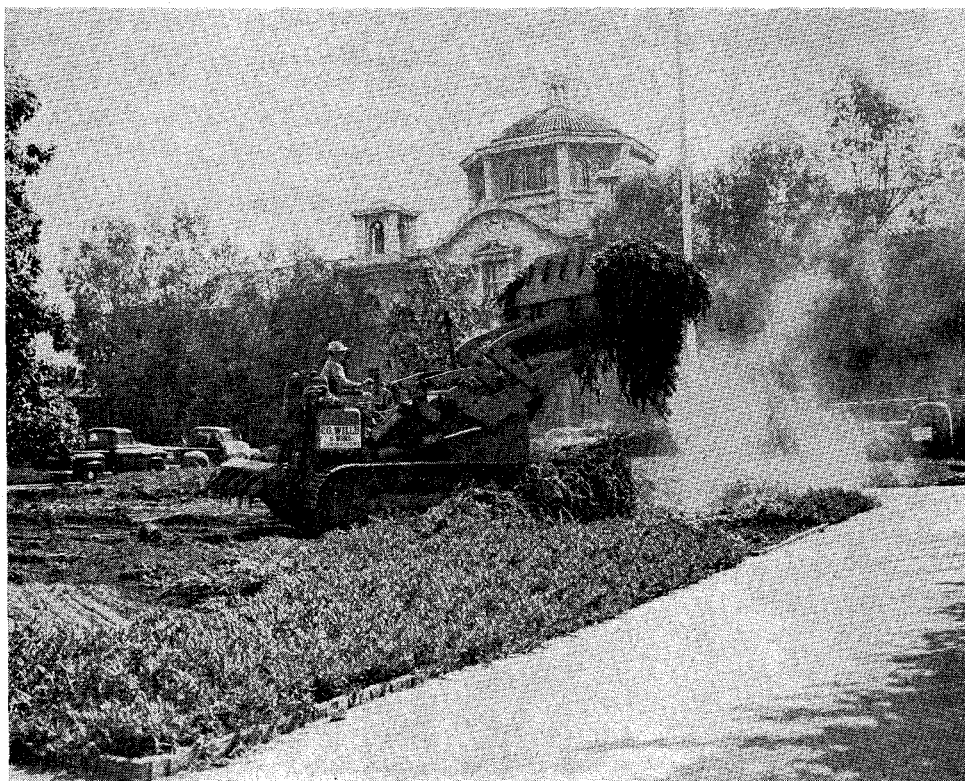
A native of Strasbourg, France, Dr. Minkowski received his PhD in physics at Breslau University in Poland. He was assistant, privatdocent and professor at the Physikalisches Staatsinstitut in Hamburg, Germany, from 1922-35.

Among various investigations Dr. Minkowski made

in Germany were several in which he successfully applied kinetic theory and quantum theory to the interpretation of observed effects in the spectra of gases. His first astronomical investigation was a thorough study of relative intensities of lines in the spectrum of the Great Nebula in Orion.

He became a staff member of the Mount Wilson and Palomar Observatories in 1935 and received his American citizenship papers in 1940. He has been a research associate at Caltech since 1948.

At Mount Wilson, Dr. Minkowski became interested in the challenging problems of gaseous nebulae and of novae. By studying slit spectra obtained with the large telescopes, he discovered a large number of planetary nebulae from objects found on a smaller telescope on Mount Wilson. His discussion of the new data, together with his superior direct photographs of planetaries, which disclosed many remarkable geo-



## THE ICEPLANT GOETH

*— and most of the central campus is uprooted as bulldozers pave the way for construction of an underground room to house the \$1,000,000 electrostatic generator for the new Alfred P. Sloan Laboratory of Mathematics and Physics.*



## EXHIBIT DAY

*An enthralled visitor and an enthusiastic demonstrator at the spring party given for the California Institute Associates on May 7. Scientific demonstrations and exhibits, which filled Dabney Lounge and Gardens, were shown to Caltech students, faculty and employees on May 8.*

metrical forms, has greatly enlarged our knowledge of this subject.

Once every few centuries, one star out of the billions in the Milky Way system may explode into a supernova, several times brighter than the sun. One of these is the Crab Nebula, known to be a fragment of the supernova of 1054. Dr. Minkowski made a valuable physical analysis of his spectroscopic observation of the Crab Nebula, and his painstaking studies of other supernovae have been the source of most of our knowledge about these objects.

Some of his recent research has been concerned with the identification of strong radio sources with faint objects on photographs taken with the large reflectors. Several of these radio sources are believed to be galaxies in collision. A detailed spectroscopic observation of NGC 1275 has indicated relative velocities of 3,000 kilometers per second within this object and has greatly strengthened the hypothesis of colliding galaxies.

Dr. Minkowski also acted as general director of the Sky Survey, a seven-year research project sponsored by the National Geographic Society and the Palomar Observatory.

### *Guggenheim Fellowships*

Three Caltech faculty members were awarded Fellowship grants by the John Simon Guggenheim Memorial Foundation last month—W. Barclay Kamb, assistant professor of geology; Vincent Z. Peterson, assistant professor of physics; and Walter A. Schroeder, research associate in chemistry.

Dr. Kamb will continue his studies of the relation between state of stress and preferred orientation of ice crystals in selected glaciers of the Alps; Dr. Peterson will study the photoproduction of mesons and hyperons of high energy x-rays; and Dr. Schroeder will continue studies of the total structure of human hemoglobin.

### *Leif Erikson Award*

President L. A. DuBridge received the Leif Erikson Foundation Award at a banquet at the Huntington-Sheraton Hotel in Pasadena on April 24. The award is given each year to a man whose work commemorates the pioneering spirit of the Scandinavian people.

Although Dr. DuBridge has received many honors and awards for original research in the physical sciences and for administrative work on national scientific projects, this award is for his work in the field of education.

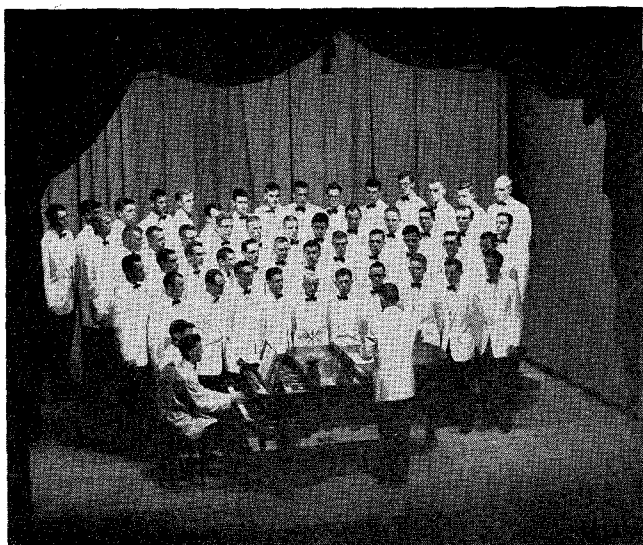
The bronze plaque was presented to Dr. DuBridge by Vaino Hoover, president of the Leif Erikson Foundation and a Caltech alumnus. The award is made jointly by societies representing the five Scandinavian

countries — Finland, Sweden, Denmark, Norway and Iceland.

### *Cancer Grant*

Henry Borsook, Caltech professor of biochemistry, received the largest research grant ever awarded by the American Cancer Society to a Los Angeles County scientist. The \$58,539 grant will support a three-year attempt to isolate and identify a hormone involved in the function of red blood cells.

The hormone stimulates production of red blood cells in the bone marrow but its origin and composition are uncertain. Important clues to such problems as anemia and other abnormal blood conditions may result from these studies.



### BOOMING GLEE CLUB

*The Caltech Glee Club, under the direction of Olaf Frodsham, has grown from a once-a-week community sing involving about 10 men, to its present membership, limited to 62 — or about one-tenth of the undergraduate student body. This year the club made a one-week tour of California cities; this month its annual spring concert filled Culbertson Hall for two nights; next month it puts out a two-record LP album. And on May 24 the club winds up the current Caltech TV series, "The Next Hundred Years," when it appears with President DuBridge on the final show of the season, on Channel 4, at 4 p.m.*

