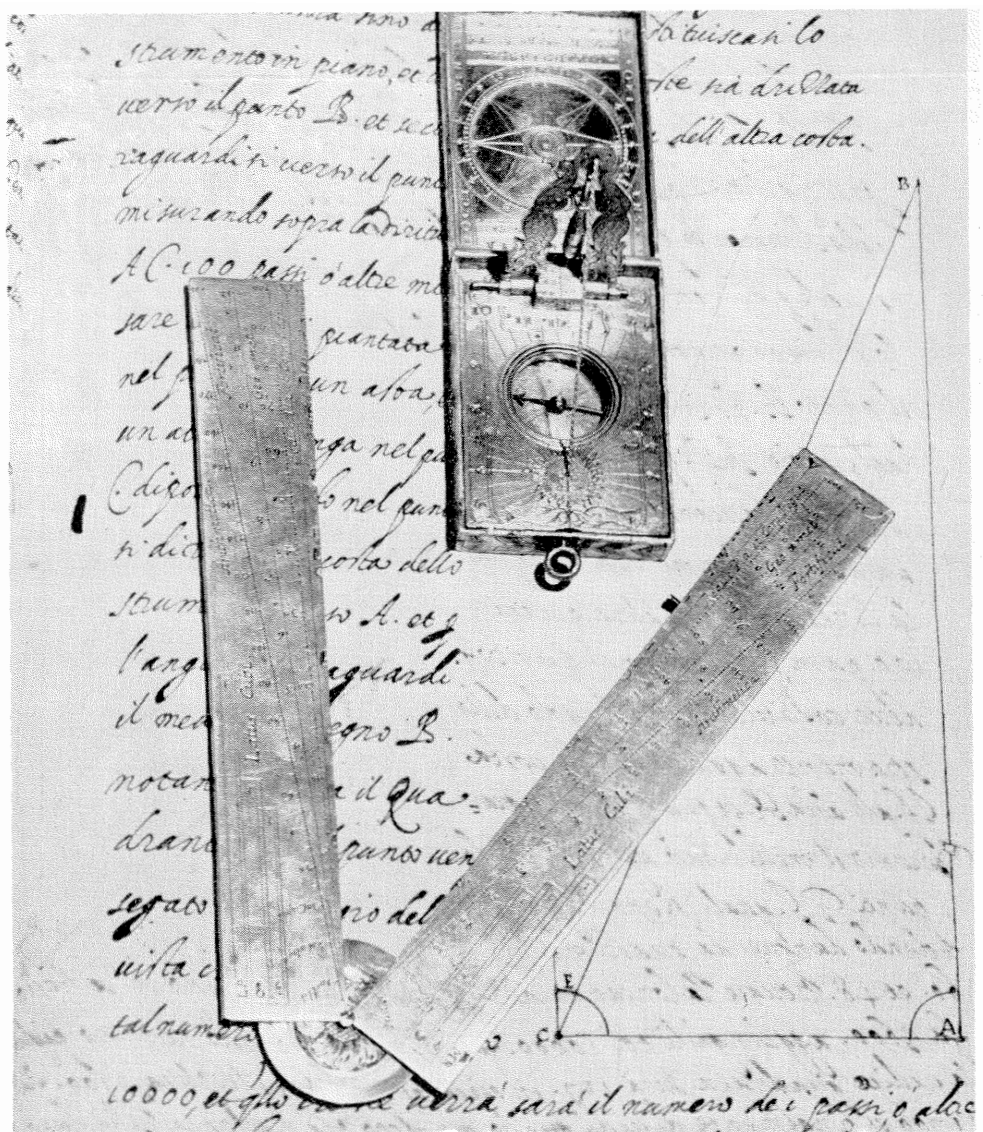


THE MONTH AT CALTECH



Galileo manuscript describes rare instruments already in Caltech's collection.

Rare Books

A COLLECTION of 300 rare scientific books, including first editions of Galileo, Copernicus and Kepler, were formally presented to Caltech last month by a trustee of the Institute. Purchased from Dr. Giampaolo Rocco of Florence, Italy, some of the books are still in their original bindings, handsome and sturdy after hundreds of years of use.

The books were added to the impressive library already started by Ernest C. Watson, dean of the Caltech faculty, and the late Drs. Edwin P. Hubble and George Ellery Hale. These combined collections now make the finest library on the early history of astronomy on the West Coast.

Among the rarest books in the new collection is Galileo's treatise on his first invention, a geometrical and military compass, a device resembling a modern sector. Published in Padua in 1606, this was Galileo's earliest printed work; only eight copies of it are known to exist today. The collection also contains a manuscript of this work, bound together with the manuscript of Galileo's first work on mechanics.

Another first edition, dated 1543, is *De Revolutionibus*

Orbium Coelestium, written by the great Polish astronomer, Copernicus. In this volume, he expands on his theory that the earth moves around the sun, which upset all previous conclusions that the earth was the center of the universe. The rare 1566 and 1617 editions of this work are also in the collection.

One of the handsomest editions in the collection is Kepler's *Rudolphin Tables*, which contains a large world map regarded as the most elaborate and authoritative of its day.

MIT at Caltech

PRESIDENT JAMES R. KILLIAN, vice-president and provost J. A. Stratton and eight other administrative officers and department heads of the Massachusetts Institute of Technology will visit the campus this month to discuss mutual educational problems with Caltech staff members.

The MIT group starts its visit with a trip to Palomar Observatory on March 18. In the party will be Caltech President L. A. DuBridge, members of the board of

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trustees, division heads and deans of Caltech, who will accompany the group to the observatory and from there to Warner Hot Springs for the night. The following day the whole group will take a tour through the desert. With Dr. George Beadle, chairman of the Division of Biology, as chairman, the formal meetings will begin on March 20 at Caltech.

During the three days of meetings, discussions will include the future complexion of engineering education, fiscal problems and government contracts, methods of improving the quality of science and mathematics instruction in secondary schools, new educational experiments at Caltech and MIT, graduate school problems and the handling of students of exceptional intellectual capacity.

Pasadena '76

PRESIDENT DuBRIDGE accepted appointment last month to a new committee set up by the Pasadena Chamber of Commerce to study the economic and cultural growth of this area and make a report which will provide a background for planning for the next 20 years.

The four-man committee, known as Pasadena '76, also includes industrial designer Henry Dreyfuss as chairman; Philip S. Fogg, president of Consolidated Aerodynamics Corp.; and Walter S. Young, superintendent of Bullock's Pasadena.

Travelogue

EARNEST A. WATSON, dean of the faculty, took a leave of absence from the Institute this month to make an extensive tour of the Middle East with Mrs. Watson—he to do research on the contributions of the area to the history of science, she to collect material for a book on the Crusades and the Middle Ages.

The Watsons, who left Pasadena on March 6, are not due back until school opens in the fall, and a run-through of their itinerary indicates that there is little of the Middle East they intend to miss.

After flying direct from New York to Cairo they go on to Alexandria, then up the Nile to Luxor and Aswan. Back in Cairo, they join a group of about 20, in a chartered plane, to travel to such spots as Petra—the rose-red desert city that commanded the caravan trade for centuries — and other old caravan cities, Damascus, Palmyra, Bagdad and Babylon.

Moving east to Iran, they stop at Kermanshah, Hamadan, Tehran, Isfahan, Shiraz and Persepolis, the old Persian capital destroyed by Alexander the Great. After visits to Saudi Arabia and some of the oil developments, as well as Ur of the Chaldees, the Watsons leave the chartered plane to do some traveling on their own—including Nishapur and the tomb of Omar Khayyam, and

Maragha, Persia's once-great capital of science.

From Beirut the Watsons will tour the Crusaders' country by car, move on to Cyprus, Ankara, Istanbul, Izmir and down the coast of Asia Minor. To cover the islands off the coast they will either take an Istanbul-Antioch freighter or hire their own fishing boat out of Rhodes.

Through Crete, Athens, Thessaly and Thrace they will then use Sicily as a base to cover the centers in Italy and Sicily where Archimedes and Pythagoras lived and early Greek science flourished. Finally, by way of Madrid and Lisbon, this itinerary includes—home.

Pauling's Peregrinations

LINUS PAULING, chairman of Caltech's Division of Chemistry and Chemical Engineering, starts late this month on an extensive lecture tour which will take him as far north as the University of Manitoba (where he will give the annual Merck Lecture to the faculty of medicine) and as far east as Amherst College, Massachusetts.

In between, he will lecture at the State University of Iowa, Iowa State College, the American Psychiatric Association in Chicago (where a symposium will be held on the recent progress in genetics and its implications in psychiatric theory), the University of Kansas, and Yale University (where he will lecture by invitation from the Yale Law School Forum).

Dr. Pauling will spend the month of April as a visiting professor at the University of Illinois.

Sir Charles Darwin

SIR CHARLES GALTON DARWIN, one of the world's leading physicists, visited Caltech this month to address two physics seminars. On March 8 he spoke on "The Discovery of Atomic Number"; on March 9 his subject was "Forecasting the Future."

Sir Charles, 68, was a pioneer in nuclear studies, and from 1938 to 1949 he was director of the National Physics Laboratory in England. He is the grandson of the Darwin who wrote *The Origin of Species*. His father was Sir George Darwin, a distinguished astronomer, and his godfather was Sir Francis Galton, the celebrated geneticist. He has written two popular science books: *The New Conception of Matter*, which was published in 1931, and *The Next Million Years*, which appeared in 1952.

Polio Grants

THE NATIONAL FOUNDATION for Infantile Paralysis last month announced grants to Caltech of \$40,509 for research by Renato Dulbecco, professor of biology, and \$32,126 for Linus Pauling, professor of chem-

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ENGINEERING AND SCIENCE

istry and chairman of the Division of Chemistry and Chemical Engineering.

Dr. Dulbecco, whose technique for studying animal viruses has made it possible to isolate genetically pure strains of polio viruses, will continue research to determine the properties of the polio virus. Dr. Pauling's research, financed by the new grant, will be to ascertain what viruses are made of and how they are formed.

NSF Grants

THE NATIONAL SCIENCE FOUNDATION recently announced research grants of \$3,240,500 to 164 institutions and individuals. At Caltech, Herschel K. Mitchell, professor of biology, received a three-year grant of \$18,000 to study the nature of phospholipids, a derivative of phosphoric acid. And Renato Dulbecco received a grant of \$15,000 for one year of study on the virus host complex formed by animal viruses and their host cells.

Honor Guest

RAY OWEN, professor of biology, left for England late last month to attend an international conference on

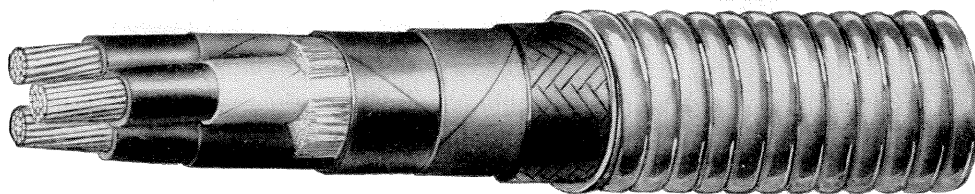
immunological tolerance sponsored by the Royal Society in London. Dr. Owen made the first discovery of naturally occurring tolerance to foreign cells in cattle twins more than a decade ago. As an honor guest at the conference, he was given a full morning to discuss results from his long-time research on red blood cell antigens and changes that occur in the antibody-forming mechanism when embryonic or new-born mammals and chicks are exposed to red cells from another individual of the same species, or exposed to red cells of a different species.

Earthquake Advice

ON, OF ALL THINGS, the Edgar Bergen Hour, Dr. Charles Richter, professor of seismology, provided radio listeners with a good deal of valuable information about earthquakes on February 19. Though readers of this publication may already be familiar with much of this information, they can still benefit from Dr. Richter's advice on what to do when caught in an earthquake.

"I always fall back on the saying of an eminent geologist, Bailey Willis," he said. "'Stand still and count 30. After that it doesn't matter what you do.'"

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