door-opening to other more important labors. Whoever, looking out over the Pacific, off the California coast, be the person professional scientist or layman, would like to picture in his imagination what a myriad animal population extending through cubic miles of the ocean water may be doing, as day and night follow each other, month after month and year after year, such doing consisting of the ceaseless activity of the animals in their "struggles for existence," has only to search Dr. Esterly's writings for material out of which to construct such a picture. What the creatures eat, how they catch their prey and how fast they digest it; by what creatures they in turn are preyed upon; when and how they propagate; how the different kinds respond, each largely in its own way, to the change of light from midday to midnight, back and forth, and from midsummer to midwinter, also back and forth; how far into the depths they descend—such are the items of information available for his picture, thanks to Esterly's perseverance and skill in catching, counting, computing statistics and experimenting. The history of marine biology does not furnish many instances of such a well-balanced combination of field, statistical work and laboratory experimentation as is furnished by the researches of Esterly on the Copepoda of the "San Diego area" of the Pacific.

But no account of the man's life, however brief, would do him justice that said nothing about him as a teacher. President Remsen du B. Bird, of Occidental College, with whom he worked hand-in-hand for many years, is especially fitted to speak of him in this capacity:

> Dr. Esterly was one of our great teachers. He had those qualities of personality which endeared him to everybody. He gave himself without stint to the college and his devotion carried him to all its activities. Particularly was he active as chairman of the Committee on Athletics, a position which he handled with tact and fairness and deep interest in student affairs.
>
> There was universal respect for him in the work of the classroom. His quietness, thoroughness and deep interest in all his students won from his colleagues and those who were in his classes the very highest praise. I do not see how a professor in a college such as Occidental could have been better fitted for his task in scholarship, progressive interest in his departmental affairs, wise counselling and fine loyalty than Dr Esterly.

Through the years of my association with Dr. Esterly at the Scripps Institution, I was impressed with his case as an example of the possibilities there are in the identification of teachers of science in non-research colleges and schools, with institutions devoted exclusively to research.

The loss which Dr. Esterly's personal friends and professional associates have suffered from his untimely death is unrecordable in printer's ink. Much less is so recordable the loss suffered by Ruth Orgren Esterly, the wife and vital companion of most of his adult life.

WM. E. RITTER
UNIVERSITY OF CALIFORNIA

SCIENTIFIC EVENTS

THE INTERNATIONAL TEMPERATURE SCALE

THE Seventh General Conference on Weights and Measures, at its meeting on October 4, 1927, adopted provisionally a temperature scale, including certain standard temperatures, interpolation formulae, and methods of measurement. This scale will be used by the Bureau of Standards and other national laboratories.

In addition to the melting and boiling points of water (0° and 100°), the standard temperatures adopted are:

(a) Boiling point of oxygen	−182.97° C.
(b) Boiling point of sulphur	444.60
(c) Melting point of silver	960.5
(d) Melting point of gold	1063

The platinum resistance thermometer is standard below 660° C., the platinum rhodium thermocouple between 660° C. and 1063° C. Above 1063° C., the temperature scale is based on the Wien-Planck equation with $c_2 = 1.432$ cm degrees. There is also included a series of temperatures for calibrating secondary measuring instruments, and details of experimental technique.

The complete text of the decisions of the conference will appear in the October number of the Bureau of Standards *Journal of Research*.

GEORGE K. BURGESS
NATIONAL BUREAU OF STANDARDS

THE NAVAL GRAVITY DETERMINATION SURVEY

LAST fall the International Geodetic and Geophysical Union communicated with the Navy Department on the subject of contributing to an oceanic gravity determination survey, but the initiation of such work without a background of technical experience and with no apparatus to start with presented such difficulties as necessitated a more or less indefinite postponement of any participation. Fortunately, however, Dr. William Bowie, chief of the division of geodesy of the U. S. Coast and Geodetic Survey, learned from Dr. F.