present act also as curator of the other divisions. Associate curators **E. C. Leonard, C. V. Morton,** and **E. H. Walker** are assigned to the Division of Phanerogams, and **Paul Conger,** in charge of the Section of Diatoms, is assigned with his collections to the Division of Cryptogams. It is expected that this reorganization will enable the staff working with the collections designated as the U. S. National Herbarium to give them better care and to respond more promptly to the many requests for information received from all parts of the world.

The National Bureau of Standards, in cooperation with the Office of Naval Research, has just published in loose-leaf form the first tables in a new and comprehensive compilation of "Tables of Selected Values of Chemical Thermodynamic Properties," which bring together for the first time all available published data of chemical thermodynamic properties. One set of these tables, which are published in three parts, is being furnished to each university Department of Physics, Chemistry, or Engineering. U. S. Government laboratories, research institutions, and industrial laboratories may obtain one set each on request to the Bureau.

Make Plans for—

American Roentgen Ray Society, September 14–19, Atlantic City, New Jersey.

American Chemical Society, September 15–19, New York City.

Illuminating Engineering Society, September 15–19, New Orleans, Louisiana.

American Institute of Electrical Engineers, Middle Eastern District Meeting, September 23–25, Dayton, Ohio.

American Public Health Association, October 6–10, Atlantic City, New Jersey.

American Academy of Ophthalmology and Otolaryngology, October 12–17, Chicago.

American Association for the Advancement of Science, 114th Meeting, December 26–31, Chicago, Illinois.

COMMENTS *by Readers*

In solar radiation work the unit called the gram calorie per square centimeter per minute is very frequently used; for longer time intervals, such as an hour or day, for example, the gm cal/cm²/hr or gm cal/cm²/day is used, when appropriate. These units are somewhat cumbersome to write and even more awkward to say.

A more convenient unit is therefore needed. According to F. Linke (*Handb. Geophys.*, 1942, **8,** 30) the "langley" has been proposed to designate the gm cal/cm²/min, in honor of Samuel P. Langley, who, as the first director of the Astrophysical Observatory of the Smithsonian Institution, contributed greatly to the study of solar radiation and its depletion by various gases in the earth's atmosphere.

However, in view of the need of considering longer time intervals than a minute, it is herewith proposed that the "langley" be defined as the gm cal/cm², where "gm cal" denotes the 15°C gm cal. It is also proposed that the written abbreviation of "langley" be "ly"; to shorten the word in other ways might tend to confuse it with other units.

Having adopted the new unit we may now speak of the langley per minute, the langley per hour (and so forth), which will be written as ly/min and ly/hour. (L. B. ALDRICH, *Smithsonian Institution, Washington, D. C.*; H. WEXLER and S. FRITZ, *U. S. Weather Bureau, Washington, D.C.*; I. F. HAND, *U. S. Weather Bureau, Boston*; A. COURT, *Office of the Quartermaster General*, and MAJOR W. P. MELLEN, *Air Corps, Washington, D. C.*)

A remarkable set of rainbows was seen from 8:00 until about 8:15 P.M. (C.D.T.) on July 20, 1947, at Urbana, Illinois. The main primary rainbow showed a continuous band of clear color. The most unusual part of this bow was the brilliance of the violet band, which at times exceeded in intensity that of the blue and green bands. From top to bottom the colors in a primary rainbow run: red, orange yellow, green, blue, indigo, violet. Usually the indigo and violet bands are quite faint, whereas in this case they were unusually bright.

A secondary rainbow was very plain, above and outside the arc of the primary bow. In this, as is usual, the order of colors was reversed, with red at the bottom and green above. It is uncommon for the blue, indigo, and violet bands to show above the green in the secondary rainbow, and this was no exception. However, the width of the secondary bow, even without the blues, was about equal to that of the whole primary bow. Between the primary and secondary bows the sky appeared to be lacking in light. It was dark, leaden gray in color.

Beneath and within the curve of the primary rainbow were the so-called supernumerary rainbows, very brilliantly exhibited. Although these are referred to as "familiar" phenomena by W. J. Humphreys in his *Physics of the air* (1920, pp. 456–482), they have never before been seen by the writer or by many other mature persons. In this case the position of the sun, due to the time of day, was almost ideal for rainbow phenomena. The whole band of rainbows appeared to lie within a vertical angle of about 20°, from about 60–40° above the horizon, with the zenith of the bows in a direction about 10° S.E. from the observer. Two supernumerary bands of color beneath the unusually brilliant violet of the primary bow were visible to this observer, and Lt. Col. J. S. Shaplund, C.E., U. S. Army, told the writer that he was able to distinguish still another inner band from his place of observation. The only colors distinguishable in these supernumerary bows were green and red-violet. The bands of green and violet were very narrow, their width being about that of green and blue only