of the National Research Council, Washington. Dr. L. O. Howard, chief of the U.S. Bureau of Entomology and Dr. D. T. MacDougal, director of the Desert Laboratory, Tucson, Ariz., retiring general secretary, were made members of the council.

As vice-presidents and chairmen of the various specialized sections of the American Association, the following were chosen:

Section A, mathematics, Prof. W. H.Roever, Washington University, St. Louis Mo.; section B, physics, Dr. H.M. Randall, University of Michigan, Ann Arbor, Mich.; section C, chemistry, Prof. H.P. Cady, University of Kansas, Lawrence, Kansas; Section D, astronomy, Dr. A.E. Douglass, University of Arizona, Tuscson, Arizona; section E, geology, Prof. Reginald Aldworth Daly, Harward University, Cambridge, Mass.; section F, zoology, Prof. H.S. Jennings, Johns Hopkins University, Baltimore, Md.; section G, botany, Prof. R.B. Wylie, Iowa State University, Iowa City, Iowa; section H, anthropology, Prof. C.B. Davenport, director of the Station for Experimental Evolution, Carnegie Institution of Washington, Cold Spring Harbor, N.Y.; section I, psychology, Prof. C.R. Seashore, Iowa State University, Iowa City, Iowa; section K, social and economic sciences, Dr. F.R. Fairchild, Yale University, New Haven, Conn.; section L, historical and philological sciences, Dr. W.A. Oldfather, University of Illinois, Urbana, Illinois; section M. engineering, Prof. F. G. Cottrel director of the Fixed Nitrogen Laboratory, U.S. Department of Agriculture, Washington, D.C.; section N. medical sciences, Prof. A.J. Carlson, University of Chicago, Chicago, Ill.; section O, agriculture, Prof. Charles V. Piper, U.S.Department of Agriculture, Washington, D.C.; section Q, education, Prof. Otis W. Caldwell, director of the Lincoln School, Columbia University, New York, N. Y.

OFFERINGS OF THE HEAVENS FOR 1925

By Isabel M. Lewis,
U. S. Naval Observatory.

The outstanding event of 1925 - the astronomical treat of the year - will be the total eclipse of the sun on January 24 which will be visible in one of the most densely populated parts of the United States. The path of totality of this eclipse will be about one hundred miles wide and several thousand miles long. It will start at sunrise a little to the east of Red Lake, Minn., sweep over the Great Lakes and part of Canada to Niagara Falls and then pass diagonally across New York state and northern Pennsylvania to Connecticut, Rhode Island, Long Island and the Sound and the islands south of Cape Cod. After last touching land at Nantucket it will sweep onward across the North Atlantic, cutting the lanes of transatlantic travel, to a point midway between the Orkney and Faroe Islands where it will leave the earth at sunset. This eclipse will take place early in the morning in the United States and Canada, in the middle of the day in mid-Atlantic, and at sunset in the British Isles and western Europe. A greater or less partial eclipse will take place over all of the central and eastern part of the North American continent, all of Central America, and northern part of South America, practically all of the North Atlantic Ocean, Central and Western Europe and northwestern Africa.

A second eclipse of the sun, an annular eclipse, will take place on July 20 in the South Pacific. An annular eclipse receives its name from the fact that at greatest eclipse the moon covers all of the sun except a very thin annulus or ring of light. The relative postions of sun and moon are such at the time that the disk of the moon fails to completely cover the sun. This eclipse will be visible as a partial eclipse from a number of islands of the south Pacific and the sun will rise

partially eclipsed in eastern Australia. The path of the annulus will pass over the coast of the extreme northern part of New Zealand and a few small islands.

There will also be two partial eclises of the moon in 1925. The magnitude of each of these eclipses will be about 75 per cent., that is, about three fourths of the diameter of the moon will be covered by the earth's shadow at greatest eclipse. The first will occur on Febrary 8 and will be visible in the eastern part of the United States where the moon will rise partially eclipsed. The eclipse will take place with the moon fully above the horizon in Europe, Asia, Africa, and the Indian Ocean. The moon will rise partially eclipsed in the Atlantic Ocean, South America and eastern North America and will set eclipsed in western Australia and the western part of the Pacific.

The second eclipse of the moon will take place on August 4 and will be visible in the western part of North and South America, the Pacific Ocean, Australia, eastern Asia and the Indian Ocean.

There will be occutations of the planets Neptune, Venus and Jupiter this year and of the first magnitude stars, Aldebaran and Regulus. The only one of these visible in the eastern part of the United States, however, will be the occultation of Aldebaran on February 2 and of Neptune on Febraury 8.

Among the planets, Mars will be visible in the western sky in the evening until August. During the year Mars will describe that part of its orbit farthest from the earth and will not be favorably placed for observation. On September 13 it will be in conjection with the sun and farthest from the earth and after that will be in the eastern morning sky but owing to proximity to the sun will not be seen for several weeks before and after conjunction. The next close approach of Mars to the earth will not take place until November, 1926.

Venus is now a beautiful object in the eastern sky before sunrise and will continue to be so during the winter. On April 24 Venus will be in superior conjunction with the sun and farthest from the earth. She will be too close to the sun to be seen for some time before and after conjunction but will appear again in June in the western evening sky where she will remain for the rest of the year approaching the earth and increasing greatly in brilliancy toward the end of the year.

Jupiter and Saturn are now visible in the eastern sky before sunrise, Saturn is far to the west of Jupiter. It will be in opposition to the sun and visible all night on May 1, and Jupiter will be in opposition on July 10. Both planets will be in excellent position for observation in the evening during the summer and early fall, but Saturn will come into conjunctionwith the sun in November.

PORTRAYS INLAND OCEAN WASHING OVER AMERICA

Imagine an earthquake 200 miles wide, and stretching from one end of north America to the other. This is what happened on the west coast of this continent on at least two successive occasions, before the gigantic forces which folded and wrinkled the earth's crust were finally spent. Why geologists think these holocausts must have taken place was the story unfolded to the American Assocation for the Advancement of Science by Dr. Charles D. Walcott, secretaty of the Smithsonian Institution and retiring president of the Association, who has just completed a study of the record of this period in geology as it is written in the fossils and formations of the Rocky Mountains. Both oceans, and a great inland sea, washed