tends to rise at solsticial times, and to sink at the time of the equinoxes. Mauna Loa responded to the last solstice with an outbreak. In Kilauea a daily rise at noon and midnight has been observed at almost all the prolonged watches during the past month. There has also been a periodic activity of Mauna Loa, and a certain amount of periodicity in Kilauea.

At the time of the 1907 activity of Mauna Loa there was a period of relative inactivity in Kilauea. Since that time there has been prolonged activity. If the next quiescence is to come in the near future, as is perhaps foreshadowed by the dropping of the lava in 1913–14, the lava may continue to drop after the coming equinox, and disappear. If, on the other hand, the present period of activity is to continue, the lake will rise during the spring in response to the summer solstice.

Mauna Loa, since the first known eruption in 1832, has shown an average duration of epochs of 11.5 years before 1868, and 5.5 years since 1868; with an average interval of repose before 1868 of 5.5 years, and since 1868 of 4.75 years. The maximum intervals of repose have been eight years each, the second being the last one. Moreover, the general activity has been an outbreak on the summit, followed, sooner or later, by an outbreak on the side of the mountain accompanied by a lava flow. Within the next three or four years, at one of the solsticial times, there should be another flow.

SIDNEY POWERS

HAWAIIAN VOLCANO OBSERVATORY, March 19, 1915

## INTERSTATE CEREAL CONFERENCE

An Interstate Cereal Conference was held at the University of California, Berkeley, June 2, 1915, with an attendance of 37. Dr. J. W. Gilmore, of the University of California, was elected chairman and Mr. Charles E. Chambliss, of the U. S. Department of Agriculture, secretary. The executive committee consists of the officers and Messrs. M. A. Carleton, F. S. Harris and Bert D. Ingels. The program was as follows:

"Cereal Production in California as Af-

fected by Geographic and Climatologic Conditions," by J. W. Gilmore and B. A. Madson.

"The Water Requirements of Cereals as determined by Physical Environments," by H. L. Shantz and L. J. Briggs.

"Work with Cereals at the Nevada Experiment Station," by C. S. Knight.

"Effect of Various Alkali Salts on the Growth of Cereals," by F. S. Harris.

"Improvement of Barley for the Pacific Coast," by E. Clemens Horst.

"Possible Sources of Barley for Introduction into California," by H. V. Harlan.

"Present Status of Studies of Helminthosporium Diseases of Barley in America," by A. G. Johnson.

"Rhyncosporium graminicola on Barley," by James McMurphy.

"Cereal Diseases and their Control in Denmark," by F. Kølpin Ravn.

"Wheat Varieties of the Basin and Pacific Coast States," by C. R. Ball.

"The Bunt Problem in the Pacific Coast States," by H. B. Humphrey.

"Wheat Breeding in the Rocky Mountain Regions," by B. C. Buffum.

"The Effect of Rust on Water Requirement of Wheat at Akron, Colo.," by H. L. Shantz and L. J. Briggs.

"The Milling of California Wheat," by B. D. Ingels.

"Commercial Handling and Grading of Grain," by L. M. Jeffers.

On June 1 the cereal crops in the vicinity of Stockton, Cal., were inspected by many in attendance at the conference.

The cereal experiments of the University of California at Davis and of the office of cereal investigations, U. S. Department of Agriculture, at Chico and Biggs, Cal., were inspected June 3 and 4.

CHARLES E. CHAMBLISS, Secretary

## $\begin{array}{cccc} INVENTION & COMMITTEES & IN & ENGLAND \\ AND & IN & THE & UNITED & STATES \end{array}$

The Invention Board established by the British government consists of a central committee and consultants who will advise the main committee on questions referred to them.