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 Affected 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

INVENTION COMMITTEES IN ENGLAND AND IN THE UNITED STATES

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.

The central committee is composed of Admiral Fisher, chairman, Sir Joseph John Thomson, Cavendish professor of experimental physics at Cambridge University; Sir Charles A. Parsons, and Mr. George T. Beilby, chairman of the Royal Technical College at Glasgow. The consulting panel includes the following and will be added to from time to time as such action becomes necessary: Herbert B. Baker, professor of chemistry at the Imperial College of Science and Technology, London; William H. Bragg, Cavendish professor of physics, University of Leeds; H. G. H. Carpenter, professor of metallurgy in the Royal School of Mines; Percy F. Frankland, professor of chemistry and dean of the faculty of science, University of Birmingham; Bertram Hopkinson, professor of mechanism and applied mechanics, Cambridge University; William Jackson Pope, professor of chemistry, Cambridge University; the Hon. Robert J. Strutt, professor of physics, Imperial College of Science; Sir William Crookes, the well-known chemist; Mr. William Duddell, electrical engineer; Sir Oliver J. Lodge, principal of the University of Birmingham; Sir Ernest Rutherford, professor of physics, University of Manchester, and Mr. George Gerald Stoney, a consulting engineer.

Secretary Daniels announced on July 19 that he had that day written to eight leading scientific societies asking each of them to select two members to serve on the proposed Naval Advisory Committee on inventions, of which Mr. Thomas A. Edison has accepted the chairmanship. The societies are: American Chemical Society, President Charles H. Herty; American Institute of Electrical Engineers, President Paul M. Lincoln; American Institute of Mining Engineers (metals), President Benjamin B. Thayer; American Mathematical Society, President E. W. Brown; American Society of Civil Engineers, President Hunter MacDonald; American Society of Mechanical Engineers, President James Hartness; American Aeronautical Society, Acting President Frederick W. Baker, and the Inventors' Guild, President Dr. Edward Weston.

The New York *Times* states that "when the attention of Secretary Daniels was called to the fact that he had not invited the American Association for the Advancement of Science or the National Academy of Sciences to participate in the naming of the board, Mr. Daniels answered that it was not his purpose to overlook any of the leading scientific bodies and that it was altogether possible that additional invitations might be sent to several other societies. The American Association for the Advancement of Science was organized in 1848 and now has a membership of 8,100. The National Academy of Sciences, incorporated by Act of Congress on March 3, 1863, is composed of 139 members and 49 foreign associates. The act of congress provides that the academy 'shall, whenever called upon by any department of the government, investigate, examine, experiment and report upon any subject of science or art, the actual expense to be paid from appropriations which may be made for the purpose.'"

SCIENTIFIC NOTES AND NEWS

DR. WILLIAM H. WELCH, professor of pathology in the Johns Hopkins University, sailed for China on July 17, and Dr. Simon Flexner, director of the laboratories of the Rockefeller Institute for Medical Research, will join him there. They go on behalf of the China Medical Board of the Rockefeller Foundation to report on the medical schools and hospitals.

A MARBLE chair is about to be placed in the open-air Greek Theater of the University of California in honor of Eugene Waldemar Hilgard, professor of agriculture and dean of the College of Agriculture from 1875 to 1906, and now professor emeritus.

THE next course of Lane medical lectures before the School of Medicine of Stanford University, will be given by Dr. Frank Billings, of Chicago. Dr. Billings will speak on "Focal Infection." The five lectures will be delivered the evenings of the week of September 20 to September 25, 1915. Dr. Billings has also agreed to give some clinical demonstrations.

PRINCE BORIS GALITZIN, professor of physics in the Imperial Academy of Sciences, Petro-