

### THE PAN-PACIFIC FOOD CONSERVATION

For the Pan-Pacific Food Conservation Conference, Honolulu, July 31-August 14, 1924, the following agenda have been suggested for discussion at the Meteorological and Climatological Sections.

Submitted by THOMAS A. BLAIR, Director U. S. Weather Bureau, Honolulu

Meteorological "Centers of Action" in the north Pacific:

1. Causes of their variation in position and intensity.
  - a. Relation to position, velocity, and temperature of ocean currents, particularly the Kuroshiwo and Oyashiwo.
  - b. Relation to Siberian air pressures.
2. Interrelations between the variations of the "Highs" and "Lows."
  - a. Resulting correlations between weather in different parts of the world.
3. Effects of their variation in position and intensity.
  - a. Effects on weather in United States and Canada.
    1. Relation to water temperatures along California coast.
  - b. Effects on weather of Japan.

Relations between Climate, Weather, and Crops:

1. Rainfall and wheat yield in Australia and California.
2. Rainfall and number of sheep or cattle per acre in Australia, and western United States.
3. Temperature and rice yield in Japan.
  - a. Relation of temperature to centers of action, to ocean temperatures, to ice in Bering Sea.
4. Sunshine, temperature, cane growth, and sugar yield in Hawaii.

Improvement and Extension of Marine Weather Records by Ships.

Twice Daily Radio Weather Reports by Ships:

1. Extension to all ships.
2. International co-operation in sending and exchanging reports.

Ocean Currents and Surface Water Temperatures:

1. Possibility of season weather forecasts on basis of ocean surface temperatures. Necessary to find out
  - a. How changes in water temperatures originate and move, and
  - b. How these changes control atmospheric pressure and winds.
2. Tropical Cyclones in northeast Pacific between Hawaii and Mexico.

Tropical Cyclones in Australia, the Philippines, and the South Pacific and Indian Oceans.

Their origin.

Tracks.

Frequency.

Monthly distribution.

Rate of progress.

—*Pan-Pacific Union Bulletin*, Mar., 1924, p. 7.

### FRANK HAGAR BIGELOW

Frank Hagar Bigelow, M.A., L.H.D., noted meteorologist and solar physicist, died at Vienna, March 2, 1924, at the age of 73 years. From 1891 to 1910 Dr. Bigelow was Professor of Meteorology, U. S. Weather Bureau. While in this position he was Chief of the Climatological Division and published several monumental researches, among which were: Report on the International Cloud Observations; Report on the Barometry of the United States, Canada, and the West Indies; The Mechanism of Countercurrents of Different Temperatures in Cyclones and Anticyclones, and researches into the law of evaporation at Salton Sea and in the United States generally. For a quarter century Professor Bigelow's tables have been used by the U. S. and Canadian weather services in making the sea-level reductions of pressure for the daily weather

maps. From 1910 to 1921, when he retired, Dr. Bigelow was Professor of Meteorology in the Argentine Weather Service, and during the last 6 years of this period, Director of the Pilar Solar and Magnetic Observatory. While in Argentina he published two books: *Circulation and Radiation of the Atmospheres of the Earth and Sun*, and *Treatise of the Sun's Radiation and other Solar Phenomena*. Into the advance phases of these latter studies few could follow him. Professor Bigelow often urged his American colleagues to break away from the conventional studies in meteorology and devote their attention more to research in radiation and its atmospheric effects. Professor Bigelow was a contributing member of the American Meteorological Society.—*C. F. B.*

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#### NOTES

The Royal Meteorological Society presented, on January 16, the Symons gold medal for 1924 to DR. TAKEMATSU OKADA, director of the Central Meteorological Observatory, Tokyo, Japan.

DR. DINSMORE ALTER, California Institute of Technology, Pasadena, Calif., has been elected a fellow of the American Meteorological Society, in recognition of his contributions on rainfall periodicities.

ROSCOE NUNN, Section Director, U. S. Weather Bureau, Nashville, Tenn., published a three-column article on, *Meteorology and Some Tennessee Meteorologists*, in the *Nashville Banner* for March 23, 1924. The article begins with an excellent general statement of the progress and aims of meteorology, while the body of the paper is devoted to very interesting biographies of Maury, Ferrel, Clayton and Fergusson.

DR. C. LEROY MEISINGER, Meteorologist, U. S. Weather Bureau, is now at Scott Field, Ill., engaged in the balloon project for following storm winds. (Cf. March, 1924, BULLETIN, p. 45.) Dr. Meisinger went from Washington to McCook Field, Ohio, and Scott Field, by airplane. A special dispatch, from Dayton, concerning Dr. Meisinger's project was published in the *New York Evening Post*, April 5. Dr. Meisinger's first flight, on the rear of the intense coast cyclone, April 2, carried him to South Carolina.

On Feb. 22, 1924, Lieut. John A. Macready observed a temperature of  $-60$  degrees C. over Dayton, Ohio. He thinks the air got much colder, since he went considerably higher after the thermometer failed at  $-60^{\circ}$  C. However, he may have entered the stratosphere, where the temperature is not quite so low as immediately beneath it. The *New York Times* report (Feb. 23) says that Lieut. Macready's failure to break the altitude record of 36,555 feet, held by Lecoq, was due to the break of the supercharger and to the extraordinary cold. Aside from the direct effects of the cold, the low temperature probably resulted in an unusually low pressure at the height of 34,983 feet reached. The fact of an altimeter reading of 41,000 feet shows this. When the air is cold the atmosphere becomes contracted to such an extent that there is less than the usual amount of air at great heights. Winter, especially cold winter weather when the pressure is not high at the ground, is, thus, not a favorable time to break altitude records. Warm, summer weather, when the surface pressure is high, especially in late summer