

While only a few flashes were observed, the "howler"¹ on the composite telephone was very noisy, sounding like static on a radio. This was probably due to lightning near Port Angeles. The Navy radio operator said that he had not noticed any lightning, but that the static had been bad all night.

CLIMATOLOGICAL SUMMARY FOR CHILE NOVEMBER AND DECEMBER, 1930

By J. BUSTOS NAVARRETE

[Observatorio del Salto, Santiago, Chile]

November.—Atmospheric circulation was less active than in October. Important depressions crossed the

¹ The composite phones "ring" by a buzzer arrangement which is heard through the "howler." This is nothing more than a receiver with a small horn to amplify the sound. It is connected to the line so that any noise on the line is heard through the "howler."

extreme southern region in the following periods: 8th-10th, 18th-20th, 24th-26th, and 27th-29th. Anticyclones, all moving from southern Chile toward Argentina, were charted from 4th to 7th, 12th to 17th, and 24th to 26th.

December.—Despite the advance of the season the atmospheric circulation continued active, ending in a severe storm in the south near the summer solstice. Well defined depressions crossed the southern region during the periods 2d-3d, 10th-13th, and 18th-21st. Anticyclones showed but little intensity, the one with greatest development being that of the 22d-26th moving from southern Chile toward northeastern Argentina and Brazil.—*Translated by W. W. Reed.*

FRANKLIN G. TINGLEY, 1871-1931

Franklin Ginn Tingley was born October 8, 1871, at Marion, Ind., and died at Hyattsville, Md., January 26, 1931. He was educated at the public schools of his native town and at Purdue University, from which he was graduated with the degree of bachelor of civil engineering. He was appointed to the Weather Bureau July 16, 1898, and was one of the pioneer observers of the West Indian weather service organized by the bureau during the Spanish-American War primarily for the protection of the American fleet in Caribbean waters. After a brief period of instruction at Washington, he served at Kingston, Jamaica, as assistant to W. B. Stockman, who was in charge of the West Indian service. When the headquarters of the service were moved from Kingston to Habana in January, 1899, Tingley remained at Kingston in charge of the station. In June, 1899, he was transferred to Habana. In August, 1899, on account of illness, he was recalled to the United States, and served successively at the Atlanta, Wilmington, and Jacksonville stations of the Weather Bureau. In November, 1901, he was assigned to the central office at Washington, where

for many years he was connected with the administrative branch of the bureau.

Meanwhile he became deeply interested in certain scientific problems, especially as bearing upon the question of extending the period of weather forecasts. In June, 1916, he was assigned to the climatological division to pursue his studies of forecasting and also to take charge of the marine section of that division. On April 1, 1920, the marine section was made a separate division, and Tingley became its chief. He served in this capacity up to the time of his death. The marine work of the bureau was greatly enlarged under his capable direction, including, among its more recent developments, a comprehensive revision of wind-roses for the Pilot Charts and the beginnings of a far-reaching study of surface-water temperatures.

Modest, gentle, and unselfish to an extraordinary degree, Tingley won the affection of everybody with whom he came in contact. His death was a grievous personal loss to his late colleagues and associates.—*C. F. T.*

BIBLIOGRAPHY

C. FITZHUGH TALMAN, in charge of Library

RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

Ashbel, Dob.

Die Niederschlagsverhältnisse im südlichen Libanon, in Palästina und im nördlichen Sinai. Berlin. 1930. 79 p. figs. 23 cm. (Inaug.-Dissert. Friedrich-Wilhelms-Univ. Berlin.)

Clyde, George D.

Establishing snow courses and making snow surveys. Logan. n. d. 16 p. illus. 23 cm. (Utah agric. exper. sta. Circ. 91. Dec. 1930.)

Gallé, P. H.

Klimatologie van den Indischen Oceaan. V. Neerslag. VI. Frequentie van luchtdrukkingen en stormachtige winden. VII. Tropische cyclonen. Amsterdam. n. d. 31 p. illus. plate (fold.). 24 cm. (K. Ned. met. inst. no. 102. Med. en verh. 29c.)

Harmer, Paul M.

Prevention of wind injury to crops on muck land. East Lansing. n. d. 8 p. illus. 23½ cm. (Agric. exper. sta. Mich. state coll. Soils sec. Circ. bull. no. 103. March, 1927.)

Höfcke, Theodor.

Der Einfluss der Höhenlage auf die Niederschläge in Thüringen. Weimar. (1930. 47 p. figs. map (fold.). 21 cm. (Mitt. der Thür. Landeswett. Heft 2.)

International commission for the study of clouds.

International atlas of clouds and of states of the sky. Abridged edition for the use of observers. Paris. 1930. ii, 41 p. 41 plates. 32 cm.

International meteorological organisation.

1r rapport de la Commission internationale de l'année polaire 1932-1933. Compte-rendu des travaux de la commission pendant sa première année de travail. Procès-verbaux-des séances de la réunion à Leningrad août 1930. Leyde. 1930. iv, 152 p. figs. plates. 24½ cm. (Sec. de l'Organ. mét. internat. No. 6.)

Kochergin, V.

Atmosfernye osadki Zakavkaz'ia. Tiflis. 1928. xxv, 347 p. 25 cm. [Rainfall in Transcaucasia.] (Transcaucasian water admin. Div. sci. invest. no. 51.)

McEwen, George F.

Results of evaporation studies conducted at the Scripps institution of oceanography and the California institute of technology. Berkeley. 1930. p. 401-415. 27½ cm. (Bull. Scripps inst. ocean., Tech. ser., v. 2, no. 11.)

Pettersson, Vilhelm I., & Pettersson, Otto.

Cartes synoptiques trimestrielles donnant la température et la salinité de l'eau de surface de l'océan Atlantique Nord. n. p. n. d. [3 p.] fig. plates (fold.) 35 cm.

Richard, W.

Wetter und Verkehrswesen. v. p. figs. 30 cm. (Die Reichsbahn. nr. 37-39. Jahrg. 1929. 11, 18, 25 Sept.)

Welter, L.

Note sur l'organisation de la protection météorologique de la navigation aérienne en Afrique Occidentale Française. [Paris. 1930.] 8 p. figs. 25½ cm. (Bull. du comm. d'études hist. et scient. de l'Afrique Occident. Franç. Année 1930. T. 13.)