On the 11th, an important atmospheric depression appeared in the west and affected the southern zone, causing bad weather with violent winds and rain between Concepcion and Chiloe Provinces. This was the beginning of a period of frequent atmospheric changes in the southern zone which lasted until the 23d; depressions succeeded one another at intervals of two to four days as they crossed the southern area. During this period, temperatures were moderate in the south and high in the central zone where fine weather was persistent.

On the 24th the southern anticyclone reestablished itself and lasted until the end of the month; during this period general fine weather prevailed, with southerly winds; the temperature rose rapidly, causing intense hot waves in the central zone, with maximum temperatures of 33° C. (91° F.) in the shade.

METEOROLOGICAL SUMMARY FOR BRAZIL, NOVEMBER, 1925

By J. DE SAMPAIO FERRAZ

(The Meteorological Office, Rio de Janeiro)

The country was visited by four anticyclones the tracks of which were irregular and abnormally far south on account of the activity of the continental LOW.

The first two HIGHS appeared in the Argentine on the 9th and 12th respectively, both deflected to a southerly track by the continental depression. From the 13th to 19th this system dominated the whole center and south of the continent.

The third anticyclone made its appearance on the 20th, following the usual northeastern track, with "surges." The last HIGH, the largest of the month, was first seen on the chart of the 24th, bringing down the temperature generally and producing fresh winds in the south on the 25th, 26th and 27th, on account of the strong contrast in pressure between it and the continent LOW, whose occasional vigorous activity was the leading feature of the month.

Rains were generally plentiful in the center and south, excepting in Bahia, although irregular in distribution in some States. In northern Brazil precipitation was below normal, perhaps because of the southern position of the tracks of the anticyclones. Rio de Janeiro had a cool, damp, and unsettled November. On the 29th the city was struck by a passing gale.

Crops were generally good. Cotton harvesting continued, but the crop was less plentiful than in the previous year. Coffee, as indicated by actual yield, will not give a normal crop, having suffered from earlier droughty conditions, although the weather of the present month ran favorably. Cane, cocoa, and tobacco were in good condition, but slightly damaged in the north by rain deficiency.

BIBLIOGRAPHY

C. FITZHUGH TALMAN, Meteorologist 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:

Aircraft development corporation.

Metalclad airships. A proposal to the United States government from the Aircraft development corporation . . . Detroit. 1925. 37 p. plates (part fold.) 29 cm.

Nagaoka anniversary volume.

Anniversary volume dedicated to Prof. Hantaro Nagaoka, by his friends and pupils on the completion of twenty-five years of his professorship. Tokyo. 1925. xvi, 422 p. illus. plates. 26 cm. [Contains articles of meteorological interest.]

Antevs, Ernst.

Retreat of the last ice-sheet in eastern Canada. Ottawa. 1925. iii, 142 p. figs. plates (part fold.) 25 cm. (Canada, Dept. of mines. Geol. surv. mem. 146. No. 126, geol. ser.)

Barbé, M. G.

Climatologie de la région du Rhin. Paris. 1924. 33 p. plates. 31 cm. (Mem. Off. nat. mét. de France. No. 8.)

Bindewald, Hilmar.

Winde und Niederschläge im Klima des Damaralandes. Giessen. 1925. [4 p.] 21 cm. (Dissert. der Hessischen Ludwigs-Universität zu Giessen. 1924.) [Manifolded.]

Boerema, J.

Uitbreiding van regenbuien te Batavia. (Extension of rainshowers at Batavia.) Weltevreden. 1925. 54 p. figs. 27½ cm. (K. Mag. en met. observ. te Batavia. Verhandelingen. No. 15.)

Clayton, H. H.

Les variations de la radiation solaire et le temps. Paris. 1925. 28 p. figs. 31 cm. (Mem. Off. nat. mét. de France. No. 11.)

Cook, William C.

Climatic variations and moth flight at Bozeman. p. 229–234. 27 cm. (Exc.: Canadian entom., Oct., 1924.)

Distribution of the alfalfa weevil (Phytonomus posticus Gyll). A study in physical ecology. Washington. 1925. p. 479–491. figs. 23½ cm. (Repr.: Journ. agric. research, v. 30, no. 5. Washington, Mar. 1, 1925.)

Diehl, Walter S.

Standard atmosphere—Tables and data. Washington. 1925. 28 p. 29 cm. (Nat. adv. comm. aeron. Report no. 218.)

Engineers study tornado forces. p. 14–16. illus. 28½ cm [Extr.: Illinois cent. mag., Chic., Sept., 1925.]

Fabry, Charles.

Ozone as an absorbing material for radiations in the atmosphere. 20 p. figs. plate (fold.) 23 cm. (Mass. inst. tech., Bull. v. 60, no. 56, Jan., 1925. Contrib. Rogers lab. physics, ser. 2, no. 24.) [Repr.: Journ. math. & physics, v. 4, no. 1, Jan., 1925.]z

Gregg, Willis Ray.

Aeronautical meteorology. New York. [c1925.] xii, 144 p. illus. maps. diagrs. plates. 22 cm.

Hellmann, G.

Grenzwerte der Klimaelemente auf der Erde. p. 200–215. 25½ cm. (Sitzungsber. preuss. Akad. der Wissensch. 11. 1925. Sitzung phys.-math. Klasse vom 26. März.)

Die Verbreitung der Hydrometeore auf der Erde. p. 285–298. 25½ cm. (Sitzungsber. preuss. Akad. der Wissensch. 15. 1925. Sitzung phys.-math. Klasse vom 30 April.)

Kolhörster, W.
Die durchdringende Strahlung in der Atmosphäre. Hamburg. 1924. 72 p. figs. 23½ cm. (Probleme der kosmischen Physik. No. 5.)

Kwangtung. Agric. and forestry exper. station.
Meteorological record, 1921, by weather bureau. n. p. n. d. 51 p. figs. 26 cm.

Lindholm, F.
Exploration de la haute atmosphère par avion. Résultats d'une campagne de sondages aérologiques en Suède. Application aux records d'altitude. 4 p. illus. 31½ cm. (Extr.: Revue de l'aéronautique, no. 72, mai 1925.)

Temperaturens och lufttäthetens variation med höjden. [Uppsala. 1925.] p. 51–69. illus. 23 cm. (Artilleritidskrift. 54:e årg. Häft 2–3.)

Lühe, Paul.
Das Klima von Wilhelmshaven. Hamburg. 1925. 26 p. diagr. 29 cm. (Archiv der deutschen Seewarte. 42. Jahrg. 1924. Nr. 3.)

Meinardus, W.
Neue Mitteltemperaturen der höheren südlichen Breiten. 12 p. fig. 23 cm. (Nachrichten der Gesellsch. Wissensch. zu Göttingen. Math.-phys. Klasse. 1925.)

Miller, M. F., & Duley, F. L.
Effect of a varying moisture supply upon the development and composition of the maize plant at different periods of growth. Columbia. 1925. 36 p. figs. plates. 23 cm. (Univ. Mo., Coll. agric. Agric. exp. sta. Research bull. 76.)

Montessus de Ballore, R. de.
Les courbes de Gauss dissymétriques et leur application à l'étude des phénomènes météorologiques. Paris. 1924. 17 p. illus. 31 cm. (Mem. Off. nat. mét. de France. No. 9.)

Montessus de Ballore, R. de., & Duarte, F. J.
Table à 12 décimales de log n. pour toutes les valeurs de n de 1 à 1000. Applications à l'étude des statistiques. Paris. 1925. 33 p. 31 cm. (Mem. Off. nat. mét. de France. No. 10.)

Pfeiffer, Robert.
Die Verteilung der Jahreszeiten im tropischen nordäquatorialen Afrika. [3 p.] chart. 33 cm. (Auszug Inaug.-Dissert. Giessen. 1920.)

Shaw, *Sir* Napier.
Weather map. Sixth issue. An introduction to modern meteorology. London. 1925. 112 p. plates (part fold.) 15½ cm. (Air ministry, Met'l office. M. O. 225i.)

Taber, C. A. M.
Cause of warm and frigid periods. Boston. 1894. 80 p. plates. 20 cm.

RECENT PAPERS BEARING ON METEOROLOGY

The following titles have been selected from the contents of the periodicals and serials recently received in the library of the Weather Bureau. The titles selected are of papers and other communications bearing on meteorology and cognate branches of science. This is not a complete index of all the journals from which it has been compiled. It shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau.

American meterological society. Worcester, Mass. v. 6. 1925.
Kincer, J. B. Protecting orchards from frost. p. 118–122. (Aug.–Sept.)
Nunn, Roscoe. World weather maps. p. 113–117. (Aug.–Sept.)
Van Cleef, Eugene. Do weather conditions influence radio? p. 137–138. (Aug.–Sept.)
Drought and heat in the southeast. p. 151–155. (Oct.)
Fergusson, S. P. Meteorology of the total solar eclipse of 1925. p. 141–150. (Oct.)
Nunn, Roscoe. Does it ever get too dry to rain? p. 155–166. (Oct.)
Nunn, Roscoe. Summer showers that perplex meteorologists. p. 156–159. (Oct.)

Archives des sciences physiques et naturelles. Genève, v. 7. Septembre-octobre 1925.
Klingelfuss, Fr. Sur la question de la rigidité diélectrique de l'air. p. 337–340. [Abstract.]
Stäger, A. Sur l'électricité des poussières. p. 335–337. [Abstract.]

Arkiv för matematik, astronomi och fysik. Stockholm. Band 19. Häfte 2. 1925.
Bäcklin, Erik. Bestimmung von Pyrheliometerkonstanten am Physikalischen Institute der Universität Uppsala. no. 10. 14 p.
Bäcklin, Erik. Über die Konstanz der Ångströmschen Pyrheliometerskala. no. 18. 8 p.

Astronomie. Paris. 39. an. Novembre 1925.
Antoniadi, E.-M. Les variations d'intensité de la radiation calorifique du soleil. p. 497–501. [Variations in solar radiation compared with variations in Martian polar caps.]

Beiträge zur Physik der freien Atmosphäre. München. Band 12. 1925.
Koschmieder, Harald. Theorie der horizontalen Sichtweite. p. 33–55. (H. 1.); p. 171–181. (H. 3.)
Hesselberg, Th. Die Gesetzte der ausgeglichenen atmosphärischen Bewegungen. p. 141–160. (H. 3.)
Traviček, Ferdinand. Schwankungen der Luftdruckveränderlichkeit, ihre Abnahme mit der Höhe und deren Beziehung zur Phasendifferenz und dem Amplitudenverhältnis primärer und sekundärer aperiodischer Druckwellen. p. 161–170. (H. 3.)

California citrograph. Los Angeles. v. 11. December, 1925.
Rainfall for 1925–26 season predicted by McEwen. p. 42.

Deutsche Seewarte. Aus dem Archiv. Hamburg. 42. Jahr gang, nr. 2. 1923.
Seilkopf, Heinrich, & Stüve, Georg. Ergebnisse von Höhenwindmessungen auf dem Nordatlantischen Ozean und im Golf von Mexico, Februar bis Mai 1923.

France. Académie des sciences. Comptes rendus. Paris. t. 181. 1925.
Dedebant. Sur l'isolement des tendances dynamiques dans les régions à forte variation diurne de la pression. p. 225–226. (3 août.)
Lejay, P. Les perturbations orageuses du champ électrique et leur propagation à grande distance. p. 678–679. (9 novembre.)

Franklin institute. Journal. Philadelphia. v. 200. November, 1925.
Seemann, Herman E. Solar radiation during the total eclipse of January 24, 1925. p. 629–633.

Heating & ventilating magazine. New York. v. 22. 1925.
Fansler, P. E. The iso-degree-day chart. p. 73. (Sept.)
How and how not to use the iso-degree-day chart. p. 49–51. (Nov.)

Hemel en dampkring. Den Haag. 23 jaargang. 1925.
Everdingen, E. van. Dr. Ch. M. A. Hartman. p. 273–276. (November.) [Obituary.]
Visser, S. W. De theorie van de zijdelingsche bogen aan den grooten kring volgens Bravais. p. 288–293. (November.)
Everdingen, E. van. Wolken en weersverwachtingen. p. 277–287. (November); p. 321–333. (December.)
Everdingen, E. van. De cycloonachtige windhoozen van 10 Augustus 1925. p. 306–316. (December.)

Japanese journal of astronomy and geophysics. Transactions and abstracts. Tokyo. v. 3 no. 1. 1925.
Akiyama, Minesaburô. On the origin of the penetrating radiation.
Fujiwhara, Sakuhei. Bead and rocket lightnings? [Abstract.]
Hirata, Tokutarô. Preliminary observations on the evaporation of water from soil surface. p. (7)–(8). [Abstract.]
Kobayasi, Seigo. Coloured snow observed at Tôkamati, Niigata Prefecture. p. (6). [Abstract.]
Misawa, Katue. Second report on the glaze storm in Nagano Prefecture. p. (5)–(6). [Abstract.]
Misu, Morisaburô. On casualties due to lightning in a mountain region. p. (6). [Abstract.]
Sekine, Yukio. On dust storms or whirlwinds of small scale. p. (4)–(5). [Abstract.]
Terada, Torahiko, Ômae, Kenzaburô, & Mituhasi, Yôzirô. Effect of topography on gustiness of winds. p. 39–44.