

The American S. S. *Lurline*, shortly before entering San Francisco Harbor, ran into a northwest gale, force 10, pressure 29.68 inches.

On the 18th the American S. S. *Bakersfield* experienced a whole westerly gale, lowest pressure 28.81 inches, in 47° 16' N., 178° 42' E., and on the 22d the Japanese tanker *Kamoi*, Yokohama to San Pedro, met with a north-northeasterly hurricane in 45° N., 179° E., without much depression of the barometer.

During the remaining days of the month there was a slackening in storm intensity, although on the 25th and 26th whole westerly gales were reported from the southward of Dutch Harbor, the barometer on board the American S. S. *Norlina* registering a pressure as low as 28.51 inches, in 50° 13' N., 167° 35' W.

On the 30th whole gales also occurred to the westward of the 180th meridian, the Japanese S. S. *Boston Maru* reporting a southwesterly wind, force 10, in 49° 33' N., 177° 07' E. The lowest observed pressure on this date was 28.64 inches, read on board the American S. S. *West Jessup* during a strong northerly gale, in the midst of a driving snowstorm, in 46° 50' N., 168° 12' E.

There was some slight shifting in the fog area since February. Much less of the phenomenon was observed along the American coast, but there was a slight increase in its occurrence over the general region of the great eastern high pressure area. Scattered fog occurred thence along the northern routes to the 160th meridian of east longitude.

NOTE.—In the February weather review of the north Pacific Ocean the highest noted force of the wind for the month was given as 11. A late report received from the British S. S. *Knockferna* shows that a full southeasterly hurricane was encountered on February 25, while the vessel was in latitude 52° 20' N., longitude 154° 05' W., the minimum pressure read being 28.45 inches.

551.515 (916)

#### GALES OFF THE AFRICAN COAST AND IN AUSTRALIAN WATERS

By ALBERT J. McCURDY, JR.

Gales of short duration and limited extent prevailed off the north and east African coast throughout March, as indicated by weather reports from vessels traversing shipping routes in that region.

The American S. S. *Nile*, Capt. Charles Olsen, proceeding from Bombay to the United States, via Port Said, on the 4th, while in the Red Sea, encountered a moderate gale with rough seas. Mr. Christian Olsen, second officer, reports that the lowest pressure observed was 29.90 inches (uncorrected), occurring at 2:40 p. m., in 24° 03' N., 36° 11' E. The wind at this time was NNW., force 7.

On the 8th and 9th the British S. S. *Hyson*, Capt. A. S. Blues, proceeding from Singapore to Jeddak, experienced a moderate southerly gale and rough seas off the islands of Perim and Kamaran in the Red Sea. The second and third officers state that the lowest pressure, 29.76 inches (corrected), was observed off Kamaran Island at 2:51 p. m., on the 9th, at which time the wind was S., force 7.

The *Hyson* encountered its second gale of the month north of Port Said on the 16th, while proceeding from Jeddak to Algiers. The second officer reports a rough confused sea with occasional rain squalls. At 8 p. m., while in 33° 30' N., 26° 23' E., the lowest pressure was observed, 29.42 inches (corrected). The wind at this time was SSW., force 7, but later shifted to northwest and increased to a fresh gale. This gale continued until 4 p. m., on the 17th.

The British S. S. *Clan Malcolm*, Capt. C. J. Higgins, Calcutta toward London, was involved in the same storm from the 16th, when proceeding into the Suez Canal, until midnight of the 17th, reporting conditions similar to those experienced by the *Hyson*. The lowest pressure reading, 29.61 inches (uncorrected), occurred at 4 a. m., on the 17th. The wind at this time was W., force 7.

The same vessel again encountered heavy squalls on the 25th, while running up the coast between Port Said and Gibraltar. Captain Higgins states that the lowest pressure was 29.81 inches (uncorrected), occurring at 4 p. m., in 36° 30' N., 2° 18' E. At this time the wind was SW., force 9.

On March 8 there was an area of low pressure south of Australia that drifted slowly northeastward and from the date of its first appearance until the 11th fresh to strong gales prevailed between Australia and the coast of New Zealand.

During the period of maximum intensity of this storm, three vessels encountered fresh to strong gales. These were the American S. S. *Las Vegas*, and the British steamships *Waiotapu* and *Maunganui*.

The *Las Vegas*, Capt. Joseph Fritsch, proceeding from Dunedin, New Zealand, to Melbourne, on March 8 encountered a westerly gale accompanied by heavy rain squalls and rough seas. Mr. A. C. Larsen, second officer, reports that the lowest pressure observed was 29.27 inches, this occurring at 6 a. m., in 42° 50' S., 152° 50' E. The wind increased by the 9th to force 9, NNW., continuing so throughout the day.

On the 9th the *Waiotapu*, Capt. J. F. S. Brown, proceeding from Auckland, New Zealand, to Melbourne, encountered this same gale while in 36° 13' S., 163° 5' E., reporting conditions similar to those experienced by the *Las Vegas*. Mr. B. S. Cave, observer, states that the lowest barometer, 29.30 inches, was recorded at 3:30 p. m., on the 9th. The wind at this time was W. by S., force 8, thence shifted to south by midnight and increased to a whole gale which continued throughout the morning of the 10th.

On the 11th this cyclone had passed over New Zealand and the center was reported to be off Auckland. The *Maunganui*, Capt. L. Worsall, westward bound from Raratonga, came within its influence 85 miles off East Cape, New Zealand, experiencing southwesterly gales, force 10, accompanied by high seas and severe rain squalls. Mr. W. Johnson, second officer, reported that the lowest observed pressure, 29.25 inches, occurred in 37° 37' S., 179° 5' W., about six hours before the gale was experienced. This gale lasted for two days and during that time the wind was steady and blowing from the southwest.