

"From the 25th to the 29th April the wind veered from S.E. to E. On the 30th it backed to S.E. x E., and then veered to N.E. on the 3rd May; was light and variable on the 4th, from N.N.W to W on the 5th and 6th, from W to S.W on the 7th, from W.S.W on the 8th and 9th, and from the S. on the 10th.

"On the night of the 3rd to the 4th May there was a thunderstorm, and also some thunder and lightning throughout the 4th. From 9 a.m. of the 3rd to 9 a.m. on the 4th, 3.75 inches of rain fell at the Observatory.

"These atmospheric disturbances indicated the existence of heavy weather away to the southward and westward, and it is now known that on the 6th May two vessels, the 'Maria Elizabeth' and the 'Wagrien,' were dismasted in about latitude 29° S. and longitude 53° E."

This last position, it will be seen, is about 420 miles E.S.E. of the locality given by the ship "Windsor Castle" on the 4th, in the following paragraph, which would show the storm to have had a progressive motion of about 210 miles per day in an E.S.E. direction.

The ship "Windsor Castle," from Port Pirie, in South Australia, to Antwerp, appears to have felt the full force of the storm on 4th May, in latitude 27° 10' longitude 45° 45' E., or about 200 miles south of Madagascar. The captain reports as follows:—

"Left Port Pirie Roads (South Australia) on 13th March; passed Cape Borda on the 19th. Had light S.E. trades across the Indian Ocean to latitude 27° 10' S., longitude 45° 45' E., when, on 4th May, was overtaken by a cyclone, which came on at the N and veered by the W to S.E. During this gale, and for several hours before its commencement, a mountainous sea was running from S.W. Had for four days previous hot sultry weather, with light variable winds. In the height of the storm the vessel was forced over on her beam-ends, and everything movable on deck washed overboard; two harness casks full of beef and pork, which were lashed under the topgallant fore-castle for present use, were washed adrift, and their contents went overboard; the carpenter's tool-chest, which was lashed in the same place as the cask, was stove in, and some of the tools washed overboard; the half-deck and galley doors stove in, and one of the iron posts wrenched off its hinges; the gig was floated out of her chocks, and dashed against the lifeboat, both boats received damage; the fore-pump was washed about the main deck and broken."

On the 18th May the barque "Elizabeth" reports experiencing a storm in 118° E., latitude 39° S., the barometer falling to 28.9 inches.

The clipper ship "Oberon," from England, on the same day, in longitude 115° E., latitude 39° S., had a violent S.E. gale, the barometer falling to 21.16 on the 19th, having evidently sailed into the S.W. quadrant of the storm.

The barque "Alice Mary," from Port Louis, on the 18th, in longitude 114° E., latitude 37° S., reports the wind to have veered to S.E., blowing a heavy gale with high confused sea. Fierce gale on the 19th, and the ship was hove-to from the 20th to the 23rd.

The central depression passed therefore from the meridian of Cape Leuwin to Hobart in about sixty hours, more or less, and had a mean velocity of about 26 miles an hour; but the velocity increased as the disturbance advanced eastward, as between Cape Leuwin and Eucla it moved at about the rate of 570 miles a day, 650 per day between Eucla and Cape Northumberland, and 960 miles per day between Cape Northumberland and Tasmania: this increased velocity in the neighbourhood of Tasmania may be accounted for by the supposition that the area of low pressure then lying to the S.E. of Cape Howe in a great measure lessened the resisting medium in front. The storm off Madagascar had a velocity of about 210 a day, and assuming a gradually increased velocity to a mean of about 300 miles a day between the 6th and 19th would bring it off the Leuwin on the 18th or 19th. It seems not improbable, therefore, that the storms were identical, and that, having passed southwards between Madagascar and the mainland of Africa, it recurred to the eastward, traversing the Indian Ocean to Australia, on the south side of the area of high pressure, which, however, did not move bodily off the continent to the eastward, but gradually contracted and was dissipated; thus we find on the 10th that the isobar of 30.4, which on the 9th embraced an area of about 800,000 square miles, extending from Melbourne to beyond Eucla, with an average breadth from N. to S. of about 500 miles, was restricted to an area of only some 20,000 square miles over the Riverina District of New South Wales, north of the Murray, Deniliquin being about the centre. It should be added that the barometrical depression which we have described as setting in from the westward, passing Perth on the 19th, was felt slightly on the north coast at Port Darwin, and was very marked in the centre of the Continent, where, at Alice Springs, the mercury fell from 30.46 on the 15th, to 29.72 on the afternoon of the 18th, remaining low till the afternoon of the 22nd, the barometer at all other times of the month being there over 30 inches.

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By Authority: GEORGE DIDSBURY, Government Printer, Wellington.—1881.