

A. S. C. 6-11-1862

87.363

QC
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R38
1862

METEOROLOGICAL OBSERVATORY.

PORI-LOUIS.

Lat. 20° 9' 56" South

ing Lat. 57° 29' 30" East.

RESULTS OF OBSERVATIONS TAKEN IN 1862.

The Barometers and Thermometers are 30 feet above the sea-level. The Barometer, which has a diameter of .564, inch is by Newman; the Thermometers are by Casella. The direction and force of the wind are recorded by Osler's Anemometer. The Rain-Gauge is 40 feet above the ground.

In ordinary weather five observations on the pressure and temperature of the air, the direction and force of the wind, the amount and character of cloud, &c., are taken daily, viz: at 3½ A. M., Noon, 3½ P. M., and 9½ P. M., and in unusual weather, and on the 21st of each month, hourly observations. The readings of the Self-Registering Thermometers and Rain-Gauge are recorded daily at 9½ A. M. Two ozone test-papers are used in the course of the twenty-four hours; one from 9½ A. M. to 9½ P. M., and the other from 9½ P. M., to 9½ A. M.

OBSERVATIONS.	JAN.	FEB.	MAR.	APR.	MAY.	JUNE.	JULY.	AUG.	SEP.	OCT.	NOV.	DEC.	Mean of Year.
BAROMETER.													
<i>(Corrected for altitude and capillarity, and to 32° Fah.)</i>													
Mean of month	29.899	29.890	29.944	30.009	30.062	30.093	30.151	30.174	30.151	30.139	29.992	29.921	30.036
Mean at 3½ A. M.	29.881	29.871	29.921	29.999	30.043	30.078	30.135	30.157	30.136	30.127	29.977	29.904	30.019
Mean at 9½ A. M.	29.923	29.917	29.972	30.048	30.092	30.128	30.188	30.212	30.182	30.173	30.014	29.945	30.066
Mean at 3½ P. M.	29.859	29.851	29.908	29.978	30.021	30.051	30.111	30.131	30.105	30.090	29.950	29.879	29.994
Mean at 9½ P. M.	29.934	29.924	29.976	30.046	30.088	30.116	30.173	30.201	30.180	30.165	30.029	29.957	30.066
Highest reading	30.029	30.039	30.150	30.117	30.185	30.255	30.300	30.337	30.259	30.265	30.124	30.029	30.174
Lowest reading	29.745	29.730	29.750	29.898	29.947	29.863	30.025	30.065	30.062	30.053	29.826	29.564	29.877
Range in month	0.284	0.309	0.400	0.219	0.238	0.392	0.275	0.272	0.197	0.212	0.298	0.465	0.297
Range from 3½ A. M., to 9½ A. M.	0.042	0.046	0.051	0.049	0.049	0.050	0.053	0.056	0.046	0.046	0.037	0.041	0.047
Range from 9½ A. M. to 3½ P. M.	0.064	0.066	0.064	0.070	0.071	0.077	0.077	0.081	0.077	0.083	0.064	0.066	0.072
Range from 3½ P. M. to 9½ P. M.	0.075	0.073	0.068	0.068	0.067	0.065	0.062	0.070	0.075	0.075	0.079	0.078	0.071
Range from 9½ P. M. to 3½ A. M.	0.049	0.053	0.055	0.047	0.045	0.038	0.038	0.044	0.044	0.038	0.052	0.053	0.046
Mean diurnal range....	0.057	0.059	0.059	0.058	0.058	0.057	0.057	0.062	0.060	0.060	0.058	0.059	0.059
TEMPERATURE OF AIR.													
<i>(Dry Bulb Ther. in Shade)</i>													
Mean of month	81.4	81.1	79.9	79.7	76.0	73.3	72.7	73.9	74.6	76.3	79.1	82.3	77.52
Highest reading	88.0	87.0	87.5	87.0	86.1	80.2	79.5	78.3	79.0	80.1	85.0	89.4	83.96

National Oceanic and Atmospheric Administration

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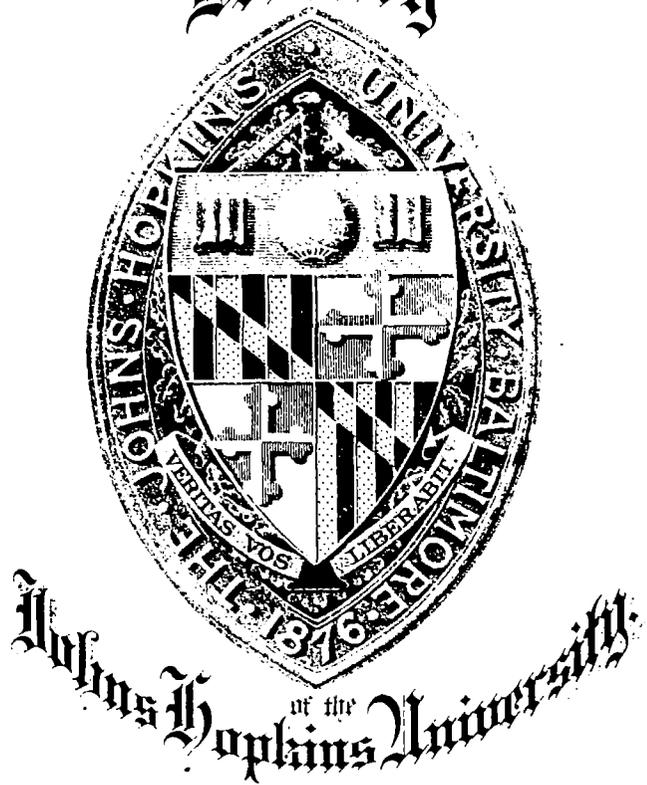


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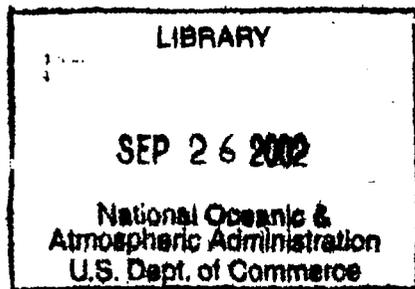
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Results of
Observations taken in 1862.



QC
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R38
1862-1879

QC 802

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OBSERVATIONS.	JAN.	FEB.	MAR.	APR.	MAY	JUNE.	JULY.	AUG.	SEP.	OCT.	NOV.	DEC.	Mean of Year.
TEM. OF AIR (Continued)													
Lowest reading	76.9	76.9	75.9	74.9	70.8	68.0	68.2	69.0	70.0	73.2	73.6	75.4	72.73
Range in month	11.1	10.1	11.6	12.1	15.3	12.2	11.3	9.8	9.0	6.9	11.4	14.0	11.23
Mean of highest daily readings	85.8	85.9	84.3	84.5	80.8	77.6	75.7	75.9	77.1	78.9	81.8	86.2	81.21
Mean of lowest readings	79.3	79.0	78.1	77.1	73.6	70.7	70.7	71.6	72.4	74.1	76.9	79.7	75.27
Mean diurnal range	6.5	6.9	6.2	7.4	7.2	6.9	5.0	4.3	4.7	4.8	4.9	6.5	5.94
Greatest diurnal range.	9.3	8.1	7.0	9.5	11.1	11.3	8.7	7.3	6.9	6.4	6.4	8.9	8.41
Least diurnal range...	4.6	5.0	4.8	5.7	3.9	3.8	2.1	2.1	0.7	2.1	3.9	4.0	3.56
TEMPERATURE OF EVAPORATION.													
<i>(Wet Bulb Ther. in Shade)</i>													
Mean of month	74.9	74.9	72.9	73.3	69.6	65.2	66.5	67.0	67.1	67.9	71.8	74.1	70.43
Highest reading	79.0	81.9	79.0	77.2	78.4	75.3	71.9	71.8	71.5	72.6	77.0	82.0	76.46
Lowest reading	70.0	69.0	66.8	67.5	61.9	59.0	60.9	60.1	60.6	62.9	64.5	66.5	64.14
Range in month	9.0	12.9	12.2	9.7	16.5	16.3	11.0	11.7	10.9	9.7	12.5	15.5	12.32
Mean of highest daily readings	76.8	76.8	75.2	72.7	72.0	69.5	69.7	69.3	69.1	70.1	76.2	76.7	72.84
Mean of lowest readings	73.0	72.4	72.5	71.0	67.1	63.1	64.5	64.7	64.7	65.6	69.4	71.6	68.30
Mean diurnal range ...	3.8	4.4	2.7	1.7	4.9	6.4	5.2	4.6	4.4	4.5	6.8	5.1	4.54
DEW POINT (Deduced)													
Mean of month	71.8	71.3	69.5	70.0	66.1	62.0	63.3	63.3	63.2	63.8	68.2	70.0	66.88
Mean at 3½ A. M.	71.2	70.9	69.0	69.2	65.4	61.3	62.9	63.4	63.4	63.4	67.4	69.5	66.41
Mean at 9½ A. M.	72.2	71.5	69.8	70.0	66.3	62.0	63.8	63.5	62.9	63.4	68.4	69.3	66.93
Mean at 3½ P. M.	72.2	71.6	69.6	70.7	66.5	63.0	63.5	63.2	63.3	63.9	69.0	71.0	67.29
Mean at 9½ P. M.	71.7	71.4	69.6	70.1	66.4	61.7	63.0	63.6	63.3	64.4	68.0	70.1	66.93
ELASTIC FORCE OF VAPOUR (Deduced)													
Mean of month .....	.774	.764	.720	.731	.640	.563	.585	.587	.585	.595	.689	.722	.663
Mean at 3½ A. M. ....	.759	.752	.708	.711	.628	.552	.578	.587	.588	.587	.670	.717	.653
Mean at 9½ A. M. ....	.783	.769	.726	.731	.636	.563	.591	.588	.579	.589	.695	.688	.661
Mean at 3½ P. M. ....	.784	.773	.723	.747	.648	.580	.590	.585	.586	.597	.708	.753	.673
Mean at 9½ P. M. ....	.770	.764	.722	.733	.643	.558	.580	.588	.586	.607	.682	.732	.664
HUMIDITY (Deduced)													
<i>(Compl. Sat=1)</i>													
Mean of month .....	.745	.740	.727	.730	.727	.691	.735	.711	.691	.667	.706	.676	.712
Mean at 3½ A. M. ....	.766	.760	.746	.753	.736	.707	.755	.741	.730	.692	.721	.704	.734

OBSERVATIONS.	JAN.	FEB.	MAR.	APR.	MAY.	JUNE.	JULY.	AUG.	SEP.	OCT.	NOV.	DEC.	Mean of Year.
HUMIDITY.—Continued													
<i>Compl. Sat=1.)</i>													
Mean at 9½ A. M.....	.749	.742	.726	.713	.728	.687	.739	.709	.676	.651	.702	.649	.706
Mean at 3½ P. M.....	.715	.709	.689	.706	.701	.673	.704	.667	.651	.630	.689	.659	.683
Mean at 9½ P. M.....	.749	.749	.747	.749	.742	.697	.741	.723	.709	.697	.713	.693	.725
TEMPERATURE IN SUN'S RAYS.													
Highest reading of Black Bulb Ther. insulated	126.0	126.0	126.0	121.5	114.5	110.0	108.8	114.2	115.2	117.5	120.5	125.1	118.77
Lowest do. do....	105.0	98.0	100.5	106.8	98.1	97.0	95.2	95.4	101.1	102.7	104.6	96.4	100.67
Mean of month	117.5	116.4	114.6	114.3	105.9	103.4	102.7	103.1	109.3	112.4	114.3	116.5	110.9
Highest reading of Black Bulb Ther. exposed	110.0	113.5	108.2	109.5	102.0	100.9	98.9	102.8	102.4	101.8	109.0	111.8	105.90
Lowest do. do....	91.0	88.2	90.5	94.9	85.6	84.0	81.2	85.9	88.8	90.9	89.4	86.5	88.08
Mean of month	102.0	102.0	101.4	103.1	94.5	92.7	91.1	93.3	96.6	97.9	100.9	103.9	98.2
CLOUD—(10-0.)													
Mean of month	5.3	6.8	4.5	3.4	3.9	2.8	3.5	4.2	3.8	5.7	4.2	3.7	4.2
Mean at 3½ A. M.....	3.8	4.0	3.3	1.7	2.9	2.3	3.0	3.5	2.8	4.5	1.6	1.5	2.9
Mean at 9½ A. M.....	5.9	5.6	5.8	4.1	4.5	2.6	3.4	5.3	4.9	7.6	5.8	5.5	5.1
Mean at 3½ P. M.....	6.8	6.7	5.7	6.1	5.8	4.1	5.0	5.1	5.1	7.0	6.6	5.9	5.8
Mean at 9½ P. M.....	4.9	4.9	3.4	1.9	2.5	2.8	2.7	2.9	2.6	3.6	2.8	1.7	3.0
RAIN.—(inches in depth)													
Fall in month	4.019	4.695	5.970	1.845	6.760	0.580	0.600	1.090	0.314	0.589	0.806	1.129	2.366
No. of days on which rain fell	17	12	15	8	9	4	10	13	7	9	13	7	10
WIND.													
Prevailing direction ...	East	S. E. to E.	S. E.	S. E. to E.									
Mean Max. Force in lbs. per square foot	0.93	2.85	2.28	0.29	0.99	0.37	0.56	1.15	0.50	0.68	0.91	0.65	1.01
Mean Force of month ..	0.44	0.99	0.56	0.12	0.15	0.14	0.18	0.20	0.16	0.19	0.21	0.23	0.29
Mean Force at 3½ A. M..	0.40	0.64	0.61	0.05	0.06	0.12	0.17	0.16	0.11	0.11	0.13	0.16	0.23
Mean Force at 9½ A. M..	0.48	1.51	0.57	0.17	0.17	0.12	0.17	0.21	0.19	0.24	0.24	0.27	0.36
Mean Force at 3½ P. M.	0.42	0.69	0.46	0.19	0.17	0.20	0.18	0.26	0.22	0.23	0.26	0.42	0.31
Mean Force at 9½ P. M.	0.47	1.10	0.61	0.07	0.20	0.13	0.20	0.19	0.12	0.21	0.21	0.08	0.29
OZONE (Schönbein's Ozonometer 0-10.)													
Mean during day.....	0.50	1.44	1.23	0.03	1.35	2.08	2.86	3.08	.....	.....	.....	3.31	1.76
Mean during night	1.44	3.13	2.63	0.23	2.61	3.51	4.70	4.74	3.70	3.81	3.05
Mean amount	0.97	2.28	1.93	0.13	1.98	2.79	3.78	3.91	3.56	2.40

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† Test-papers done.

WIND.—Number of times it blew from

Hours of Observation.	North.	N. to N. E.	N. E.	N. E. to E.	East.	E. to S. E.	S. E.	S. E. to S.	South.	S. to S. W.	S. W.	S. W. to W.	West.	W. to N. W.	N. W.	N. W. to N.	Calm.	Variable.
3½ A. M.	1	..	..	11	67	72	55	12	2	..	..	..	..	..	..	..	144	1
9½ A. M.	3	5	8	34	53	103	62	23	1	1	1	4	12	5	10	7	30	3
Noon	14	4	3	34	35	100	51	16	2	3	4	7	23	7	13	10	6	..
3½ P. M.	10	7	4	31	33	86	53	27	1	1	4	12	19	22	16	13	16	1
9½ P. M. ....	..	1	1	11	63	115	57	18	4	1	..	2	..	2	..	1	89	1
TOTALS.....	28	17	16	121	251	476	278	96	10	6	9	25	54	36	39	31	285	6

THUNDER AND LIGHTNING.

- January 5.—Thunder and lightning at S. Wrd. during the day.
 „ 6.—Lightning at N. W. at night.
 „ 12.—Thunder and lightning during the night.
 „ 18.—Lightning round horizon at night.
 „ 19.—Much lightning at W. S. W. at night, near horizon.
 „ 25.—Faint flashes of lightning overhead at night.
 „ 28.—Lightning at North and N. W. at night.
 „ 30.—Loud thunder in afternoon, with very heavy rain in Pouce Valley.
 February 7.—Lightning at East, at 7 P. M.
 „ 8.—Faint lightning near horizon at N. W. at 8 P. M.
 „ 9.—Loud thunder and much lightning in evening.
 „ 15.—Thunder at West at 4 P. M. Lightning at West at 8 P. M.
 March 8.—Thunder at a distance early in morning.
 „ 9.—Much distant thunder.
 April 22.—Thunder-storm at Southward in afternoon.
 „ 24.—Frequent flashes of lightning at 8 P. M. at Westward.
 „ 26.—Thunder at S. Wrd. during the day.
 „ 28.—Two or three loud peals of thunder at 1.40 P. M.
 May 24.—Much lightning at W. S. W. at 9 P. M., and a heavy thunder-storm during the night.
 No ball or forked lightning was observed.

METEORS.

With the exception of a large meteor which is said to have been seen for a few seconds travelling to Northward at 11 h. 20 min. P. M. on the 19th April, and then breaking up into three or four fragments, there is nothing worthy of note to record under this head.

REMARKS.

The Monthly Means of the Barometer, Dry Bulb Thermometer, Wet Bulb Thermometer, Dew Point, Elastic Force of Vapour, Relative Humidity, Amount of Cloud, and Force of Wind, in the Tables, have been derived from the four observations taken daily at 3½ A. M., 9½ A. M., 3½ P. M., and 9½ P. M.

In the results of the barometric observations for 1861 no correction was made for the altitude (30 feet) above the sea-level. This correction has been applied to the observations for 1862, and as it amounts to about .030 (additive), the mean height of the Barometer for 1861 (30.002) was very nearly the same as for 1862 (30.036—.030=30.006.)

The highest reading of the Barometer was 30.337 (corrected) at 9½ A. M. on the 15th August, and the lowest 29.564 at 3½ A. M. on the 2nd December; which gives for the year a range of 0.773 inch. This is the

The S. E. trade then resumed its normal state, the barometer rising. By noon on the 20th, the trade reigned from at least 34° S. to 15° S. and 40° E. to 90° E., as shewn by the logs of twenty seven vessels. At $9\frac{1}{2}$ P. M. on the 21st the barometer here stood at 30.108, with the wind at S. E. to East, and the weather fine. But on the 22nd the mercury again began to fall, and it continued falling till, at $3\frac{1}{2}$ P. M. on the 25th, it stood at 29.856, after which it gradually rose to 30.094 at $9\frac{1}{2}$ P. M. on the 28th. Now, at the time the barometer was beginning to go down at Port Louis the S. E. trade on its polar edge, in about 35° S. and 50° E., was being deflected to an E. N. E. and a N. E. wind, and at noon on the 22nd a strong N. E. gale was blowing in 37° S. and 48° E., with a low and falling barometer; while, on the equatorial borders of the trade, in 13° S. and 56° E., there was another locality of strong winds and falling barometer. By noon on the 23rd the wind, from 23° S. and 80° E. to 40° S. and 52° E., blew in an extensive curve, from right to left, or contrary to the motion of the hands of a watch; and in 38° S. and 50° E. a strong gale prevailed from the Northward, and a few degrees farther West from the Southward. At the same time a strong N. W. ly gale was blowing near Agalega, with every appearance of the existence of a cyclone in that quarter. On the 25th at noon similar winds and weather prevailed, the deflected trade, from 20° S. to 40° S. and 90° E. to 60° E., moving in a semicircle from right to left, in strong gales, from 30° S. to 40° S., with apparently a cyclone to the N. Wrd. of Mauritius, the wind at Port Louis being strong from the N. Erd., while at Réunion it was from the S. Erd. The weather then improved and the trade-wind resumed its usual direction. It would thus appear that when the barometer stood high at Mauritius there was, both to the North and South of the island, on the equatorial and polar borders of the trade-wind, a locality of lower atmospheric pressure, towards which the heavier air began to move: and accordingly the barometer fell.

From $9\frac{1}{2}$ P. M. on the 28th January to $3\frac{1}{2}$ P. M. on the 1st February, the barometer fell from 30.094 to 29.880, the wind being chiefly moderate from E. S. Erd. and the weather rainy and cloudy; and the mercury remained below 30.000 till the 10th of February, the wind slowly veering to N. E. and North. Now, the log-books show that during this period a storm travelled from about 10° S. and 70° E. to the vicinity of Tamatave, and also that strong gales occurred in Southern latitudes, especially on the 8th, 9th, and 10th.

The next case of low barometer worthy of remark occurred between the 21st February and the 2nd March. At $9\frac{1}{2}$ P. M. on the former day the mercury stood at 30.094, and it fell to 29.888 at $3\frac{1}{2}$ P. M. on the 27th, after which it began to rise. The wind during the whole time was from S. S. E. to East, chiefly from S. Erd., attaining on the 26th a maximum pressure of $12\frac{1}{2}$ lbs., per square foot; and, with the exception of the 27th, which was overcast and showery, the weather was fine. Now, during this period the weather on the inner borders of the N. W. monsoon and S. E. trade, from about 8° S. to 16° S. and 60° E. to 110° E., was very stormy, and at least two severe hurricanes were encountered in that locality, both of which, on the 27th and 28th, were raging at the same time, one in 10° to 20° S. and 70° to 80° E., and the other in 10° to 20° S. and 100° to 110° E.

Some days afterwards, the mercury again began to go down, and, from $9\frac{1}{2}$ A. M. on the 5th to 4 P. M. on the 9th March, it fell from 30.044 to 29.864, the wind veering from E. S. E. to East, North, and N. W., and blowing at times with a force of from 1 to 8 lbs. Now, this descent of the mercury was coincident with an advancement of the N. W. monsoon to the Southward, and the existence of strong gales to the Northward and Westward of the island, and also (especially on the 8th) in 30° to 40° S. and 45° to 55° E.

Nothing remarkable in the barometric oscillations occurred between the 10th and 20th March; but from $9\frac{1}{2}$ P. M. on the latter day to $3\frac{1}{2}$ P. M. on the 27th the mercury again fell from 30.244 to 29.972, the wind slowly veering from S. E. to East, and in the squalls (from S. E.) on the 23rd, blowing with a force of 7 lbs. Now, from the 22nd to the 27th a hurricane travelled from about 10° S. and 80° E. to 20° S. and 73° E., and there were signs of another to the N. Wrd. of Mauritius; in fact, the N. W. monsoon and the trade appear to have been in stormy collision over a great extent of longitude.

During, then, the three months of January, February, and March, the barometer never fell, to the extent of even the 10th of an inch, except when a gale or hurricane occurred at sea either on the equator or the polar borders of the trade-wind, or on both; and, on the other hand, no gale or hurricane occurred except when the barometer fell.

With regard to the remaining months of the year, an examination of the observations leads in every instance to the same conclusion; but there is space for only two or three examples.

From $9\frac{1}{2}$ P. M. on the 8th to $3\frac{1}{2}$ P. M. on the 11th June the barometer fell from 30.214 to 29.958, the wind being light from East to N. E. and North, and the weather fine, except on the 10th, when it was gloomy and showery. Now, during this period heavy gales prevailed on the polar limits of the trade, between 10° E. and 60° E.

Several instances occurred in July. For example, from the 13th to the 16th, the barometer fell from 30.308 to 30.120, with the wind light from the S. Erd. and the weather fine; and on this occasion hard gales were experienced from 30° to 40° S. and 10° to 50° E.

Again, from the 7th to the 19th August, the barometer fell on three occasions, viz., from 30.350 at 9½ A. M. on the 7th to 30.214 at 3½ P. M. on the 9th,—from 30.312 at 9½ P. M. on the 10th to 30.184 at 3½ P. M. on the 12th,—and from 30.424 at 9½ A. M. on the 15th to 30.222 at 3½ P. M. on the 17th; and during that period terrific gales and hurricanes took place from 30° to 40° S. and 10° to 50° E.

The September gales, also, in the same localities, were coincident with a falling of the barometer at Port Louis.

With respect to these winter gales, and also the summer gales in the same latitudes, it is probable that the mercury goes down in consequence of the withdrawal of air from the island and its neighbourhood towards the locality where the storm is raging and the atmospheric pressure less; for the S. E. trade is generally deflected to an East and a N. E. wind, which often extends over hundreds of miles, and forms (or feeds) the Eastern side of the storm. At all events, so invariable was the coincidence of a fall of the barometer with strong gales in Southern latitudes found to be in June and July, that those of August, September, and October were inferred at the time from the state of the barometer and weather.

On the 11th of October the barometer fell rather suddenly, standing at 9½ P. M. on the 10th at 30.312, and at 9½ P. M. on the 11th at 30.252. From 9½ A. M. on the 11th to 3½ P. M. it fell exactly .100, which was considerably more than the average; but on the 12th it again began to rise. The weather on the 10th, 11th and 12th was gloomy, with the wind from S. E. to East. This abrupt fall and rise of the mercury indicated an unusual atmospheric disturbance; and it was afterwards ascertained that a severe storm or hurricane had been experienced on the 11th and 12th at the Seychelles. From observations taken on board of H. M. S. V. *Orestes*, (Capt. Gardiner), in Port Victoria, it appears that the wind commenced at S. E., and at noon of the 11th was strong from South, from which it veered to S. W. and West by midnight, in increasing gales, with very gloomy weather, hard squalls, and much rain. On the 12th, the wind increased to a heavy storm from W. N. W., but in the afternoon gradually decreased to a calm. The barometer fell from 30.040 at noon on the 10th, with the wind at S. E., to 29.700 at 11 A. M. on the 12th with the wind from W. N. W. On the same days the Mail Steamer *Nepaul* (Capt. Curling), from Reunion to Mahé, had S. E. gales. At noon on the 10th, she was in 9° 38' S. and 57° 59' E., with a strong breeze from E. S. E., cloudy weather, heavy Easterly sea, and barometer at 29.93; at noon on the 11th in 5° 32' S. (acct.) and 56° 35' E. (acct.), with a fresh gale from S. E., constant heavy rain, a very heavy sea, and barometer at 29.78, at noon on the 12th in 5° 19' S. (acct.) and 56° 27' E. (acct.), with the wind moderating at E. b. N., the sea running high, and the barometer at 29.73; and at noon on the 13th, in 4° 40' S. and 55° 35' E. (acct.), with a fresh breeze from E. S. E., thick rainy weather, a long Easterly swell, and the barometer at 29.92. The lowest reading of her barometer was 29.40 at 3 A. M. on the 12th, when the wind was blowing furiously from E. S. E., and rain falling in torrents. The wind did not pass more than one point to the North of East, returning in the afternoon of the 12th to S. E. This storm, which appears to have been a rotatory one, travelling to the Westward, on the confines of the trade-wind, was attended with considerable loss of life and property, chiefly in consequence of landslips occasioned by the heavy rains.

From 9½ P. M. on the 27th November to 1 A. M. on the 2nd December, the barometer fell from 30.208 to 29.666, and then rose to 30.120 at 9½ P. M. on the 4th. The wind increased from S. E., and on the morning of the 1st December attained, in the squalls, a maximum pressure of 9½ lbs. per square foot. In the afternoon, it began to haul to the South, and by 8 A. M. on the 2nd it had veered to West, through the South, falling light; and then increasing to a fresh breeze from W. S. W. On this occasion a revolving storm travelled from about 10° S. and 75° E. to 29° S. and 66° E. at the rate of 10 to 15 miles per hour.

A hurricane and strong gales were experienced, also, from the 17th to the 22nd December in from 3° N. to 12° S. and 80° to 88° E. The barometer at Port Louis fell .050 inch.

It would appear that in the Indian Ocean gales and hurricanes, generally, if not always, *originate* on the borders of the trade-wind, and that the barometer is affected at very considerable distances, owing to an indraught of air towards the locality of diminished atmospheric pressure, whether that locality be on the equatorial or polar borders of the trade. In the former case the trade, as it approaches its limits towards the Equator, usually becomes a South and S. W. wind, and in the latter, as it is drawn away to the Southward, an East, a N. E., and North wind.

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