



JAMAICA.

JULY 30, 1887.

No. 83.

WEATHER REPORT

FOR THE MONTH OF

JUNE, 1887.

QC
987
.J25
W34
1887
[June-Dec.]

Published by Authority.

JAMAICA:
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET, KINGSTON.
1887.

National Oceanic and Atmospheric Administration

Climate Database Modernization Program

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March 28, 2002

METEOROLOGICAL RESULTS FOR JUNE, 1887.

STATION.	ELEVATION.	MEANS FOR THE MONTH.									
		Pressure.		Temperature.		Dew-point.		Vapour.		Humidity.	
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
	ft.	in.	in.	°	°	°	°	in.	in.		
Kingston	60	29.979	29.936	79.3	84.0	70.3	72.1	0.740	0.787	74	68
King's House	490	...	...	78.0	84.8	71.4	73.6	0.769	0.826	79	69
Castleton Garden	580	29.36	29.36	72.8	78.1	69.3	74.9	0.708	0.868	87	91
Cinchona Plantation	4,907	25.254	25.254	62.5	66.0	56.8	60.6	0.465	0.527	82	82

STATION.	MEANS FOR THE MONTH.					EXTREMES FOR THE MONTH.					NOTES.
	Temperature.			Wind.		Temperature.					
	Max.	Min.	Range.	From.	Miles daily.	Max.	Date.	Min.	Date.	Range.	
	°	°	°			°		°		°	
Kingston	88.5	73.0	15.5	S.E.	98	92.1	2	68.4	6	23.7	
King's House	89.5	68.8	20.7	...	...	91.0	9	67.0	4	24.0	
Castleton Gardens	84.3	72.0	12.3	...	...	89	16	69	5	20	
Cinchona Plantation	68.3	58.9	9.4	E	56	71.4	2	57.2	6	14.2	Bar. 32° but uncer. 61° 5 G.T. 6 ft.

NOTE—The Barometric pressure is the reading of the Barometer corrected for instrumental error and reduced to 32°, that of Kingston being further reduced to the sea-level. The Thermometers are similarly exposed at all the above stations; their readings have all been corrected.

BLUE MOUNTAIN PEAK.

The Maximum, Minimum, and Rainfall registered at any time refer to the interval since the preceding registration; the Temperature of the air and the Weather were noted at the time of registration.

1887.	Hour.	Max. cor.	Min. cor.	Rainfall.	Temp.	Weather.	Observer.
		°	°	in.	°		
Jan. 29.	3 p.m.	63.4	40.3	23.65	49.8	Cloudy: strong gusts N.E.	B.S.G.
Feb. 27.	10 a.m.	59.4	40.2	12.55	46.9	Cloudy: N.	do.
March 30.	...	75.4	38.3	8.00	...	Fine and clear.	H. McC.
April 1.	...	62.3	43.9	2.35	...	Fine, hazy.	C. F. S.
April 28.	11 a.m.	69.1	43.3	3.82	57.0	Thick mist, calm.	B.S.G.

THE HEALTH OF KINGSTON.

The following table shows the number of deaths in Kingston during the month from a few groups of diseases, compared with the average number for the month for a few years past:—

	JUNE.	
	1887.	Average.
Infantile diseases not otherwise specified	15	19
Lung diseases	9	14
Fever	3	7
Dysentery and Diarrhœa	14	7
Various	49	53
Total	90	100

Of the various, 27 were undescribed, and 2 were due to Small-pox.

RAINFALL FOR JUNE, 1887.

The first columns contain all the Rainfall returns sent in for publication up to the date of this report; the second columns contain the corresponding average Rainfall according to the Tables published in October,

1883, as Nos. 31 and 33 of the present series of reports; and to an unpublished supplementary Table of the average Rainfall at certain places where gauges have been registered for at least five years. In obtaining the mean Rainfall for the month from the numbers in the first columns, only those stations are considered for which the average Rainfall has been given in the second columns; so that the results of these two columns are directly comparable. These results are more clearly shown in the Comparative Table at the end of these Rainfall returns:—

NORTH-EASTERN DIVISION.		JUNE.	
		1887.	Average.
		In.	In.
Morant Point L. H.	St. Thomas	9.98	6.24
Hordley		18.86	7.80
Elmwood (Long Bay)	Portland	22.96	...
Boston	...	28.70	...
Port Antonio	...	19.15	...
Cinchona Plantation,	St. Andrew	10.18	6.33
New Haven Gap	...	11.70	...
Newton	...	6.87	...
Stony Hill Reformatory	...	9.49	6.01

NORTH-EASTERN DIVISION, cont'd.

		MAY.	
		1887.	Average.
Castleton Gardens	St. Mary	16.36	8.24
Dever	...	10.80	...
Quebec	...	6.17	...
Port Maria	...	6.49	...
New Ramble	...	8.09	4.23
Gayle	...	12.00	5.85
Rio Hoe	St. Ann	12.58	9.97
Unity Valley	...	12.98	8.70
Albion	...	10.46	5.58
Averham Park	...	5.52	...
Bradfield	...	...	...
Drax Hall	...	...	...
Seville	...	6.81	3.78
Richmond Estate	...	6.42	3.25
Llandovery	...	6.94	3.24
Means		10.86	6.09

NORTHERN DIVISION.

		JUNE.	
		1887.	Average.
		In.	In.
Lillyfield	St. Ann	11.23	5.38
Home Castle	...	...	...
Richmond Pen	...	...	...
Colchis Pen	Trelawny	...	...
Mahogany Hall	...	7.79	2.77
Braco	...	...	...
Arcadia	...	...	...
Harmony Hall	...	4.10	1.68
Lancaster	...	...	...
Duncans	...	...	...
Vale Royal	...	...	...
Hyde	...	...	...
Georgia	...	...	...
Steelfield	...	...	...
Oxford	...	...	...
Cambridge	...	...	...
Spring	...	4.49	2.49
Lottery	...	...	...
Falmouth	...	2.24	2.01
Holland Pen	...	...	...
Golden Grove	...	12.85	5.79
Pembroke	...	5.85	3.37
Green Park	...	7.18	2.68
Phoenix	...	11.77	...
Tilston	...	12.62	4.34
Orange Valley	...	4.20	2.80
Kent	...	5.30	2.89
Dundee	...	7.30	3.26
Weston Favel	...	13.40	...
Gale's Valley	...	18.82	5.66
Greenwood	St. James	2.95	...
Guildbro'	...	18.60	...
Spring Vale	...	17.63	9.21
Latium	...	...	...
Cinnamon Hill	...	3.31	...
Rose Hall	...	2.85	...
Bunning Gut	...	3.45	2.32
Irwin	...	...	...
Leogan	...	5.04	...
Ironshore	...	5.11	4.16
Providence	...	4.36	...
Montego Bay (Market)	...	7.96	...
Catherine Hall	...	7.99	6.05
Catherine Mount	...	7.58	6.55
Fairfield	...	8.17	...
Means		8.10	4.08

WEST CENTRAL DIVISION.

		JUNE.	
		1887.	Average.
		In.	In.
Linstead	St. Catherine	8.65	6.80
Cave Valley	St. Ann	...	...
Barton Isles	St. Elizabeth	5.82	...
Appleton	...	6.18	7.20
Windsor Pen	Trelawny	18.69	...
Maroon Town	St. James	17.03	...
Kepp	St. Elizabeth	8.18	7.25
Mount Charles	...	...	...
Mount Edgecombe	Westmoreland	6.49	5.61
Windsor Forest	...	6.96	...
Woodstock	...	9.05	...
Struie	...	3.60	...
Kew Park	...	4.04	...
Hermitage	...	...	...
Chester Castle	Hanover	6.18	...
Copse	...	12.85	8.85
Houghton Grove	...	...	...
Kempshot	St. James	4.75	...
Anchovy	...	7.31	7.12
Wiltshire	...	11.14	8.21
Eden	...	9.25	...
Bound Hill	Hanover	12.45	6.20
Cacoon Castle	...	16.97	10.51
Golden Grove	...	14.05	10.92
Great Valley Pen	...	16.00	...
Tryall	...	11.38	7.98
Sweet River	Westmoreland	6.95	...
Mackfield	...	4.15	...
Windsor (Sav.-la-Mar)	...	6.86	6.68
Fontabelle	...	11.21	...
Belle Isle	...	6.70	...
King's Valley	...	11.06	...
Kew Estate	Hanover	...	...
Houghton Court	...	...	...
Orange Cove	...	...	...
Abingdon	...	9.63	...
Means		10.12	7.78

SOUTHERN DIVISION.

		JUNE.	
		1887.	Average.
		In.	In.
Albion Hospital	St. Thomas	9.81	...
The Abbey	...	16.00	...
Halberstadt	St. Andrew	11.94	...
Hope Plantation	...	6.37	...
Cherry Garden	...	5.16	...
King's House	...	5.64	3.12
Monatric	...	5.34	3.63
Public Works Office	Kingston	4.82	3.32
Franklyn Town	...	4.39	...
Elletson Road	...	5.27	...
Plumb Point L. H.	...	5.79	3.79
Spanish Town	St. Catherine	4.57	3.74
Windsor Park	...	6.71	...
Hog Hole Pen	...	4.86	3.90
Headworks, R. O. C.	...	4.24	5.50
Old Harbour	...	5.06	...
Springfield	Clarendon	9.12	...
Farm Plantation	Manchester	9.58	6.70
Stone's Hope	...	10.93	...
Brokenhurst Plant.	...	...	...
Pepper	St. Elizabeth	3.61	2.63
Long Hill	...	5.26	2.92
Potsdam	...	2.65	...
Gilmore Hall	...	...	...
Santa Cruz (Poor House)	...	6.25	...
Black River	...	1.00	2.68
Bloomsbury	...	7.27	...
Means		4.97	3.80

*Gauge overflowed on the 30th.

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered 4.77 and 5.79 inches respectively.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

	JUNE.	
	1887.	Average.
North Eastern Division	In. 10.86	In. 6.09
Northern "	8.10	4.08
West Central "	10.12	7.78
Southern "	4.07	3.80
The Island	8.51	5.44

The largest fall, namely, 28.70 in. was recorded at Boston in Portland; the smallest, 1.00, was recorded at Black River. It will be noticed that the Rainfall was exceedingly irregular.

With regard to the Rainfall at Boston, Mr. Jenoure writes that 13.50 fell in 24 hours on the 5th of June, and that 8 inches fell in 4 hours.

MAXWELL HALL.

Kempshot Observatory,
July 25th, 1887.



JAMAICA.

AUGUST 27. 1887.

No. 84.

WEATHER REPORT

FOR THE MONTH OF

JULY, 1887.

Published by Authority.

JAMAICA,
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET, KINGSTON

1887.

METEOROLOGICAL RESULTS FOR JULY, 1887.

STATION.	ELEVATION.	MEANS FOR THE MONTH.									
		Pressure.		Temperature.		Dew-point.		Vapour.		Humidity.	
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
Kingston	ft. 60	in. 30.036	in. 29.997	° 79.0	° 86.0	° 69.9	° 73.8	in. 0.731	in. 0.834	74	66
King's House	400	...	...	...	...	...	...	...	...	...	...
Castleton Garden	580	...	...	...	...	...	...	...	...	...	...
Cinchona Plantation	4,907	...	...	...	...	...	...	...	...	...	...

STATION.	MEANS FOR THE MONTH.					EXTREMES FOR THE MONTH.					NOTES.
	Temperature.			Wind.		Temperature.					
	Max.	Min.	Range.	From.	Miles daily.	Max.	Date.	Min.	Date.	Range.	
Kingston	° 90.3	° 72.4	° 17.9	S.E.	69	° 93.3	21	° 69.0	2	° 24.3	
King's House	...	...	...	...	...	...	...	...	...	...
Castleton Gardens	...	...	...	...	...	...	...	...	...	...
Cinchona Plantation	...	...	...	...	...	...	...	...	...	...

NOTE.—The Barometric pressure is the reading of the Barometer corrected for instrumental error and reduced to 32°, that of Kingston being further reduced to the sea-level. The Thermometers are similarly exposed at all the above stations; their readings have all been corrected.

BLUE MOUNTAIN PEAK.

The Maximum, Minimum, and Rainfall registered at any time refer to the interval since the preceding registration; the Temperature of the air and the Weather were noted at the time of registration.

1887.	Hour.	Max. cor.	Min. cor.	Rainfall.	Temp.	Weather.	Observer.
Jan. 29.	3 p.m.	° 63.4	° 40.3	in. 23.65	° 49.8	Cloudy: strong gusts N.E.	B.S.G.
Feb. 27.	10 a.m.	° 59.4	° 40.2	12.55	° 46.9	Cloudy: N.	do.
March 30.	...	° 75.4	° 38.3	8.00	...	Fine and clear.	H. McC.
April 1.	...	° 62.3	° 43.9	2.35	...	Fine, hazy.	C. F. S.
April 28.	11 a.m.	° 69.1	° 43.3	3.82	° 57.0	Thick mist, calm.	B.S.G.

THE HEALTH OF KINGSTON.

The following table shows the number of deaths in Kingston during the month from a few groups of diseases, compared with the average number for the month for a few years past:—

	JULY.	
	1887.	Average.
Infantile diseases not otherwise specified	17	16
Lung diseases	8	18
Fever	11	6
Dysentery and Diarrhoea	6	3
Various	45	54
Total	87	97

RAINFALL FOR JULY, 1887.

The first columns contain all the Rainfall returns sent in for publication up to the date of this report; the second columns contain the corresponding average Rainfall according to the Tables published in October, 1883, as Nos. 31 and 33 of the present series of reports; and

to an unpublished supplementary Table of the average Rainfall at certain places where gauges have been registered for at least five years. In obtaining the mean Rainfall for the month from the numbers in the first columns, only those stations are considered for which the average Rainfall has been given in the second columns; so that the results of these two columns are directly comparable. These results are more clearly shown in the Comparative Table at the end of these Rainfall returns;—

NORTH-EASTERN DIVISION.		JULY.	
		1887. | Average.	
		In.	In.
Morant Point L. H.	St. Thomas	4.25	3.48
Hordley		7.79	6.29
Elmwood (Long Bay)	Portland	10.25	...
Boston	...	9.26	...
Port Antonio	...	16.98	...
Cinchona Plantation,	St. Andrew	...	...
New Haven Gap	...	...	...
Newton	...	5.28	...
Stony Hill Reformatory	...	8.99	4.90

NORTH-EASTERN DIVISION, *contd.*

		JULY.	
		1887. | Average.	
		In.	In.
Castleton Gardens	St. Mary	9.72	7.82
Dover	...	...	...
Quebec	...	3.21	...
Port Maria	...	4.08	...
New Ramble	...	...	...
Gayle	...	...	...
Bio Hoe	St. Ann	13.75	5.05
Unity Valley	...	20.10	6.91
Albion	...	10.79	4.13
Averham Park	...	5.27	...
Bradfield	...	6.62	4.28
Drax Hall	...	4.34	2.91
Seville	...	3.89	2.02
Richmond Estate	...	...	...
Llandoverly	...	4.40	1.00
Means		3.60	4.38

NORTHERN DIVISION.

		JULY.	
		1887. | Average.	
		In.	In.
Lillyfield	St. Ann	6.30	2.53
Home Castle	...	4.04	...
Richmond Pen	...	4.95	...
Colchis Pen	Trelawny	2.85	...
Mahogany Hall	...	3.02	5.04
Braco	...	2.61	2.41
Arcadia	...	2.20	...
Harmony Hall	...	...	...
Lancaster	...	3.20	2.66
Duncans	...	...	...
Vale Royal	...	4.42	3.48
Hyde	...	6.66	6.22
Georgia	...	2.91	2.92
Steelfield	...	3.70	3.07
Oxford	...	2.53	...
Cambridge	...	3.59	3.75
Spring	...	2.46	1.44
Lottery	...	3.79	2.40
Falmouth	...	3.25	1.49
Holland Pen	...	2.84	...
Golden Grove	...	5.95	5.70
Pembroke	...	7.10	3.06
Green Park	...	...	...
Phoenix	...	7.24	...
Tilston	...	4.00	4.44
Orange Valley	...	1.69	2.84
Kent	...	2.42	1.37
Dundee	...	1.35	3.91
Weston Favel	...	9.91	...
Gale's Valley	...	6.55	5.30
Greenwood	St. James	2.48	...
Gullsbro'	...	6.17	...
Spring Vale	...	...	...
Latium	...	...	...
Cinnamon Hill	...	...	...
Rose Hall	...	...	...
Running Gut	...	...	...
Irwin	...	...	...
Leogan	...	3.42	...
Ironshore	...	2.05	2.06
Providence	...	1.59	...
Montego Bay (Market)	...	3.30	...
Catherine Hall	...	2.88	3.33
Catherine Mount	...	2.68	4.89
Fairfield	...	4.44	...
Means		3.98	3.38

WEST CENTRAL DIVISION.

		JULY.	
		1887. | Average.	
		In.	In.
Linstead	St. Catherine	12.05	5.05
Cave Valley	St. Ann	11.92	5.15
Barton Isles	St. Elizabeth	5.29	...
Appleton	...	7.11	7.54
Windsor Pen	Trelawny	9.26	...
Maroon Town	St. James	16.73	...
Kepp	St. Elizabeth	8.53	8.31
Mount Charles	...	...	...
Mount Edgecombe	Westmoreland	8.42	7.11
Windsor Forest	...	11.73	...
Woodstock	...	6.32	...
Struie	...	7.05	...
Kew Park	...	8.29	...
Hermitage	...	...	...
Chester Castle	Hanover	7.16	...
Copse	...	5.45	8.66
Haughton Grove	...	...	...
Kempshot	St. James	8.43	...
Anchovy	...	5.86	5.25
Wiltshire	...	4.16	6.27
Bden	...	4.46	...
Round Hill	Hanover	3.00	4.70
Cacoon Castle	...	10.11	7.75
Golden Grove	...	10.25	7.92
Great Valley Pen	...	10.30	...
Tryall	...	5.66	5.56
Sweet River	Westmoreland	7.43	...
Mackfield	...	8.09	...
Windsor (Sav.-la-Mar)	...	7.44	7.59
Fontabelle	...	10.76	...
Belle Isle	...	9.90	...
King's Valley	...	16.18	...
Kew Estate	Hanover	...	...
Haughton Court	...	...	...
Orange Cove	...	2.53	6.62
Abingdon	...	16.52	...
Means		7.32	6.63

SOUTHERN DIVISION.

		JULY.	
		1887. | Average.	
		In.	In.
Albion Hospital	St. Thomas	7.53	...
The Abbey	...	12.40	...
Halberstadt	St. Andrew	9.00	...
Hope Plantation	...	7.54	...
Cherry Garden	...	7.07	...
King's House	...	...	...
Monaltrie	...	7.44	2.73
Public Works Office	Kingston	7.10	2.03
Franklyn Town	...	6.71	...
Elletson Road	...	7.14	...
Plumb Point L. H.	...	7.63	2.17
Spanish Town	St. Catherine	14.21	1.94
Windsor Park	...	11.87	...
Hog Hole Pen	...	15.65	2.41
Headworks, R. C. C.	...	11.27	3.94
Old Harbour	...	7.56	...
Springfield	Clarendon	10.70	...
Farm Plantation	Manchester	9.50	3.67
Stone's Hope	...	11.26	...
Brokenhurst Plant.	...	10.20	...
Pepper	St. Elizabeth	2.94	2.71
Long Hill	...	3.05	4.34
Potsdam	...	5.25	...
Gilnock Hall	...	5.28	...
Santa Cruz (Poor House)	...	5.99	...
Black River	...	2.50	5.16
Bloomsbury	...	8.75	...
Means		8.13	3.10

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered 6.53 and 7.63 inches respectively.

COMPARATIVE TABLE.
(Based upon the "Average" Stations only.)

	JULY.	
	1887.	Average.
North Eastern Division	In. 8.60	In. 4.38
Northern "	3.98	3.38
West Central "	7.92	6.68
Southern "	8.13	3.10
The Island	7.01	4.38

The largest fall, namely, 20.10 in., was recorded at Unity Valley in St. Ann; the smallest, 1.35, was recorded at Dundee in Trelawny.

THE COMMENCEMENT OF THE HURRICANE SEASON.

This occurred earlier than usual. On July 19th according to *The Gleaner*, a storm passed over Barbados and drove nine vessels ashore. On the 22nd the bar. dropped suddenly in Jamaica, the dull weather, cloud-drift, &c., indicating that the disturbance had passed far north of Jamaica.

But as so frequently happens, this Cyclone developed another smaller one; the smaller one passed south of Jamaica on a north-westerly course early on Sunday, July 24th, and was off the west-end of the Island at 7 a.m. At Kempshot the wind rose to more than 20 miles an hour; and as the action was well marked, it was considered advisable to send a note to the Harbour Master in Montego Bay to the effect that the danger had passed. The only effect in Kingston produced by these Cyclones was that of rain—seven inches fell on the 22nd, 23rd and 24th.

MAXWELL HALL.

Kempshot Observatory,
August 20th, 1887.

THE JAMAICA WEATHER SERVICE, 1887.

(1.) During the hurricane months of August, September, and October, the weather will be considered "disturbed" when the barometer is falling and when it has fallen between one and two tenths of an inch (0.15) below its mean value for the time of day and year, all due corrections having been applied.

(2.) When the weather during these months is disturbed, a circular telegram will be despatched; and copies of this telegram will be posted at all the Telegraph Stations in the Island.

(3.) The forms used in posting the copies of these weather telegrams will be the same as hitherto, except that the forms will be printed on red paper; and the telegrams will give the hour of despatch, the reading of the barometer, corrected and reduced, the temperature of the air, the direction and force of the wind, the weather, and any remarks which may be necessary.

(4.) These telegrams are intended to attract public attention to the weather, so that due care may be taken, and so that the second circular telegram may not take the community by surprise should it be of a warning nature.

(5.) In order to render the Weather Service effective in warning the shipping in the different Ports of the Island, copies of the telegrams referred to above will be given to the Harbour Masters at Black River, Sav-la-Mar, Lucea, Montego Bay, Falmouth,

St. Ann's Bay, Port Maria, Port Antonio, and Morant Bay, or to their representatives as the Government may direct, who will keep themselves in readiness, up to 10 o'clock at night if necessary, to receive the second circular telegram, and to warn the shipping in Harbour should the second telegram render such warning necessary.

(6.) With the aid of the Harbour Master of Kingston, special arrangements will be made for warning the shipping in that Port. As heretofore notices will be posted during the day when necessary at the Colonial Secretary's Office, the Commercial Exchange, and Mr. John Macdonald's store in Harbour Street; and if necessary hurricane flags will be hoisted at the two former places.

(7.) A hurricane flag should be six feet square having a red border enclosing a black centre two feet square; and at night the flag should be replaced by a red lamp.

(8.) After the first circular telegram has been despatched a second telegram will be sent either to convey special warning or to relieve unnecessary alarm, as soon as the position and motion of the centre of the disturbance can be ascertained by an exchange of telegrams between Kingston and Montego Bay, and also between Kingston and Santiago de Cuba if possible.

(9.) But due weight should always be given to the first circular telegram; the telegraph wires may be broken before the second can be despatched; two centres may confuse the indications; or a storm centre to the south of Jamaica apparently moving westwards may suddenly curve northwards on its course.

(10.) Arrangements are being made so that the Harbour Masters may have flags and lamps to hoist when specially ordered by a warning telegram, or when the wires are down and a storm is clearly approaching.

(11.) Under special circumstances when due notice can previously be given to the Head Telegraph Office in Kingston, the wires will be kept open between 10 p.m. and 7 a.m., and also on Sundays.

(12.) Since the establishment of the Service in 1880, twenty cyclonic disturbances have passed within barometric range of Jamaica, and information respecting them has, when possible, been telegraphed round the Island without causing unnecessary alarm in a single case, for on two occasions only, namely, before the hurricanes of August 18th, 1880, and August 20th, 1886, have orders been given to hoist the hurricane flags.

We may therefore expect that about three disturbances will on an average be telegraphed round the Island each hurricane season; but only once in these seven years has it been necessary to telegraph between 10 p.m. and 7 a.m., namely, on the night of August 19th, 1886, and it has never been necessary to telegraph on a Sunday. But still the emergency may arise, and should be provided for; and the telegraph clerks may be assured that their services will never be asked for beyond the usual working hours except when absolutely necessary from a meteorological point of view.

(13.) The daily circular telegrams formerly despatched from Kingston during the hurricane months will be discontinued for the future.

MAXWELL HALL.

Kempshot Observatory,
August 12th, 1887.



JAMAICA.

OCTOBER 1, 1887.

No. 85.

WEATHER REPORT

FOR THE MONTH OF

AUGUST, 1887.

Published by Authority.

JAMAICA;
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET, KINGSTON

1887.

METEOROLOGICAL RESULTS FOR AUGUST, 1887.

STATION.	ELEVATION.	MEANS FOR THE MONTH.									
		Pressure.		Temperature.		Dew-point.		Vapour.		Humidity.	
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
Kingston	ft. 60	in. 29.952	in. 29.914	° 77.6	° 84.1	° 71.1	° 74.2	in. 0.761	in. 0.846	81	74
King's House	400	...	...	79.3	84.7	72.4	75.3	0.785	0.868	79	73
Castleton Garden	580	29.36	29.35	71.9	76.8	70.0	74.3	0.783	0.840	93	91
Cinchona Plantation	4,907	25.240	25.234	63.3	66.1	56.8	63.2	0.465	0.576	81	80

STATION.	MEANS FOR THE MONTH.					EXTREMES FOR THE MONTH.					TOTAL RAINFALL.
	Temperature.			Wind.		Temperature.					
	Max.	Min.	Range.	From.	Miles daily.	Max.	Date.	Min.	Date.	Range.	
Kingston	89.1	72.1	17.0	Var.	40	90.9	1	69.3	13	21.6	inch. 3.63
King's House	90.1	70.5	19.6	...	...	92	5	69	9	23	9.25
Castleton Gardens	83.9	71.4	12.5	...	...	86	21	69	15	17	12.00
Cinchona Plantation	71.2	60.0	11.2	E.	24	73.4	5	58.7	6	14.7	9.49

NOTE—The Barometric pressure is the reading of the Barometer corrected for instrumental error and reduced to 32° that of Kingston being further reduced to the sea-level. The Thermometers are similarly exposed at all the above stations; their readings have all been corrected.

THE HEALTH OF KINGSTON.

The following Table shows the number of deaths in Kingston during the month from a few groups of diseases, compared with the average number for the month for a few years past :—

	AUGUST.	
	1887.	Average.
Infantile diseases not otherwise specified	8	12
Lung diseases	22	16
Fever	0	4
Dysentery and Diarrhoea	4	3
Various	46	43
Total	80	78

RAINFALL FOR AUGUST, 1887.

The first columns contain all the Rainfall returns sent in for publication up to the date of this report, the second columns contain the corresponding average Rainfall according to the Tables published in October, 1883, as Nos. 31 and 33 of the present series of reports, and to an unpublished supplementary Table of the average Rainfall at certain places where gauges have been registered for at least five years. In obtaining the mean Rainfall for the month from the numbers in the first columns, only those stations are considered for which the average Rainfall has been given in the second columns; so that the results of these two columns are directly comparable. These results are more clearly shown in the Comparative Table at the end of these Rainfall returns :—

NORTH-EASTERN DIVISION.		AUGUST.	
		1887.	Average.
		In.	In.
Morant Point L. H.	St. Thomas	4.20	5.46
Hordley	...	7.54	10.78
Elmwood (Long Bay)	Portland	6.71	...
Boston	...	5.34	...
Port Antonio	...	7.01	...

NORTH-EASTERN DIVISION, contd.

		AUGUST.	
		1887.	Average.
		In.	In.
Cinchona Plantation,	St. Andrew	9.49	8.18
New Haven Gap	...	4.56	...
Newton	...	4.9	...
Stony Hill Reformatory	...	18.53	12.66
Castleton Gardens	St. Mary	12.00	10.48
Dover	...	4.5	...
Quebec	...	4.21	...
Port Maria	...	5.46	...
New Ramble	...	4.68	5.69
Gayle	...	3.65	6.26
Rio Hoe	St. Ann	6.44	8.56
Unity Valley	...	8.83	5.33
Albion	...	8.86	5.85
Averham Park	...	8.53	...
Bradfield	...	4.95	5.05
Drax Hall	...	7.89	3.81
Seville	...	6.09	3.63
Llundoverly	...	5.40	2.29
Means		7.75	6.72

NORTHERN DIVISION.

		AUGUST.	
		1887.	Average.
		In.	In.
Lillyfield	St. Ann	12.27	5.50
Home Castle	...	5.39	...
Richmond Pen	...	6.45	...
Colchis Pen	Trelawny	4.54	...
Mahogany Hall	...	10.22	6.84
Braco	...	4.62	3.88
Arcadia	...	5.65	...
Harmony Hall	...	4.43	2.82
Lancaster	...	5.10	3.87
Vale Royal	...	4.58	5.44
Hyde	...	6.46	7.12
Georgia	...	3.99	4.64

NORTHERN DIVISION contd.

		AUGUST.	
		1887.	Average.
		In.	In.
Steelfield	Trelawny	3.71	4.66
Oxford	...	2.68	...
Cambridge	...	4.96	4.17
Spring	...	3.40	3.67
Lottery	...	3.81	3.96
Falmouth	...	3.52	3.00
Holland Pen	...	4.10	...
Golden Grove	...	5.71	5.50
Pembroke	...	5.10	5.26
Green Park	...	3.35	3.79
Phoenix	...	5.67	...
Tilston	...	5.50	5.94
Orange Valley	...	4.44	3.57
Kent	...	7.00	2.90
Dundee	...	4.20	5.36
Weston Favel	...	7.20	...
Gale's Valley	...	4.85	6.88
Greenwood	St. James	5.70	...
Guilbro'	...	6.42	...
Spring Vale	...	11.10	12.84
Cinnamon Hill	...	3.74	...
Rose Hall	...	3.50	...
Running Gut	...	...	...
Leogan	...	6.41	...
Ironshore	...	7.60	4.41
Providence	...	...	...
Montego Bay (Market)	...	4.69	...
Catherine Hall	...	6.84	6.40
Catherine Mount	...	6.41	8.81
Fairfield	...	7.69	...
Means		5.78	5.21

WEST CENTRAL DIVISION.

		AUGUST.	
		1887.	Average.
		In.	In.
Linstead	St. Catherine	7.48	7.41
Cave Valley	St. Ann	6.86	8.68
Barton Isles	St. Elizabeth	8.97	...
Appleton	...	13.18	12.48
Windsor Pen	Trelawny	10.11	...
Maroon Town	St. James	10.29	...
Kepp	St. Elizabeth	9.62	11.32
Mount Edgecombe	Westmoreland	5.01	5.96
Windsor Forest	...	...	...
Woodstock	...	...	...
Struie	...	...	...
Kew Park	...	5.39	...
Hermitage	...	...	...
Chester Castle	Hanover	12.09	...
Copse	...	7.90	12.70
Haughton Grove	...	...	...
Kempshot	St. James	13.07	...
Anohovy	...	9.12	8.58
Wiltshire	...	6.28	8.57
Eden	...	7.44	...
Round Hill	Hanover	2.85	5.45
Cacoon Castle	...	10.53	10.86
Golden Grove	...	15.90	11.04
Great Valley Pen	...	9.75	...
Tryall	...	2.93	6.06
Sweet River	Westmoreland	8.97	...
Mackfield	...	4.95	...
Windsor (Sav.-la-Mar)	...	6.47	7.17
Fontabelle	...	9.38	...
Belle Isle	...	11.65	...
King's Valley	...	7.67	...
Haughton Court	Hanover	...	...
Orange Cove	...	3.11	7.45
Abingdon	...	5.47	...
Means		7.66	8.85

SOUTHERN DIVISION.

		AUGUST.	
		1887.	Average.
		In.	In.
Albion Hospital	St. Thomas	2.34	...
The Abbey	...	5.50	...
Halberstadt	St. Andrew	6.85	...
Hope Plantation	...	10.83	...
Cherry Garden	...	14.79	...
King's House	...	9.25	7.75
Monaltrie	...	9.40	6.36
Public Works Office	Kingston	2.39	6.01
Franklyn Town	...	3.96	...
Elletson Road	...	3.63	...
Plumb Point L. H.	...	1.19	5.32
Spanish Town	St. Catherine	3.44	7.28
Windsor Park	...	2.21	...
Hog Hole Pen	...	1.83	7.24
Headworks, R. C. C.	...	5.52	8.14
Old Harbour	...	2.60	...
Springfield	Clarendon	4.50	...
Farm Plantation	Manchester	6.18	10.15
Stone's Hope	...	5.16	...
Brokenhurst Plant.	...	9.12	...
Pepper	St. Elizabeth	7.78	7.61
Long Hill	...	12.06	5.69
Potsdam	...	5.88	...
Gilmore Hall	...	13.71	...
Santa Cruz (Poor House)	...	13.00	...
Black River	...	6.70	7.21
Bloomsbury	...	11.40	...
Means		6.02	7.16

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered 0.92 and 1.19 inches respectively.

COMPARATIVE TABLE.
(Based upon the "Average" Stations only)

		AUGUST.	
		1887.	Average.
		In.	In.
North Eastern Division		7.75	6.72
Northern	"	5.73	5.21
West Central	"	7.66	8.85
Southern	"	6.02	7.16
The Island		6.79	6.98

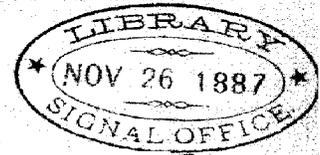
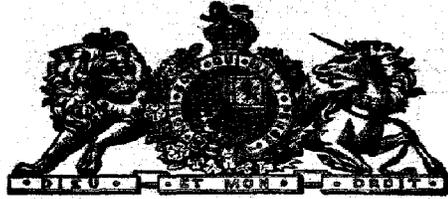
The largest fall, namely, 13.53 in., was recorded at the Stony Hill Reformatory; the smallest, 1.19, was recorded at the Plumb Point Lighthouse. These places are only 10 miles apart, but they are in different Divisions.

BAROMETRIC DEPRESSIONS WHICH PASSED NEAR JAMAICA
IN AUGUST, 1887.

If the depression referred to in the last Report be called No. 1, No. 2 occurred on August 12th, No. 3 on August 22nd, and No. 4 on August 31st and September 1st. They were all slight depressions; and in no case was it necessary to issue a circular telegram to call public attention to the weather, although indeed telegrams were exchanged between Kingston and Montego Bay. So far the new arrangements for the Hurricane Season 1887, detailed in the last Report, have answered well, by saving a great deal of unnecessary telegraphing, and by concentrating the public attention to the posting of the circular telegram when necessary, so that if no circular telegram be posted there can be no possible cause for alarm whatever public rumour may say.

MAXWELL HALL.

Kempshot Observatory,
Sept. 24th, 1887.



JAMAICA.

NOVEMBER 2, 1887.

No. 86.

WEATHER REPORT

FOR THE MONTH OF

SEPTEMBER, 1887.

Published by Authority.

JAMAICA;
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET, KINGSTON

1887.

2
METEOROLOGICAL RESULTS FOR SEPTEMBER, 1887.

STATION.	ELEVATION.	MEANS FOR THE MONTH.									
		Pressure.		Temperature.		Dew-point.		Vapour.		Humidity.	
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
	ft.	in.	in.	°	°	°	°	in.	in.		
Kingston	60	29.963	29.903	77.7	85.7	71.3	74.2	0.766	0.846	79	68
King's House	400	29.75	...	77.7	...	71.8	...	0.776	...	82	...
Castleton Gardens	580	29.37	29.36	72.7	81.5	69.9	75.6	0.733	0.882	91	82
Cinchona Plantation	4,907	25.258	25.233	64.1	67.2	56.0	62.9	0.449	0.576	75	67

STATION.	MEANS FOR THE MONTH.					EXTREMES FOR THE MONTH.					TOTAL RAINFALL.
	Temperature.			Wind.		Temperature.					
	Max.	Min.	Range.	From.	Miles daily.	Max.	Date.	Min.	Date.	Range.	
	°	°	°	Var.		°		°		°	inch.
Kingston	90.4	72.4	18.0	Var.	46.1	93.1	9	69.6	4	23.8	3.32
King's House	90.3	70.6	19.7	...	...	92	23*	69	17	23	2.09
Castleton Gardens	85.6	71.8	13.8	...	...	90	6	61	6	30	4.98
Cinchona Plantation	71.6	60.5	11.1	E.S.E.	...	75	9	58	16	17	3.11

NOTE—The Barometric pressure is the reading of the Barometer corrected for instrumental error and reduced to 32°, that of Kingston being further reduced to the sea-level. The Thermometers are similarly exposed at all the above stations; their readings have all been corrected.

BLUE MOUNTAIN PEAK.

1887.	Hour.	Temp.		Rain.	Temp.	Weather.	Observer.
		Max.	Min.				
July 3.	1.20 p.m.	70.0	47.0	in.	56	Rain.	B.S.G.
Aug. 23.	1.30 p.m.	75	49	10.20	65	"	H. C. M.
Oct. 28.	noon.	74.6	...	7.50	58	Drizzle.	C. F. S.

THE HEALTH OF KINGSTON.

The following Table shows the number of deaths in Kingston during the month from a few groups of diseases, compared with the average number for the month for a few years past :—

	SEPTEMBER.	
	1887.	Average.
Infantile diseases not otherwise specified	10	11
Lung diseases	10	13
Fever	1	5
Dysentery and Diarrhoea	4	2
Various	30	39
Total	55	70

RAINFALL FOR SEPTEMBER, 1887.

The first columns contain all the Rainfall returns sent in for publication up to the date of this report, the second columns contain the corresponding average Rainfall according to the Tables published in October, 1883,

as Nos. 31 and 33 of the present series of reports, and to an unpublished supplementary Table of the average Rainfall at certain places where gauges have been registered for at least five years. In obtaining the mean Rainfall for the month from the numbers in the first column, only those stations are considered for which the average Rainfall has been given in the second column; so that the results of these two columns are directly comparable. These results are more clearly shown in the Comparative Table at the end of these Rainfall returns;—

NORTH-EASTERN DIVISION.		SEPTEMBER.	
		1887.	Average.
		In.	In.
Morant Point L. H.	St. Thomas	3.78	7.64
Hardley		6.44	12.98
Elmwood (Long Bay)	Portland	...	...
Boston	...	9.02	...
Port Antonio	...	7.65	...
Cinchona Plantation,	St. Andrew	3.11	13.21
New Haven Gap	...	0.75	...
Newton	...	2.92	...
Stony Hill Reformatory	...	4.43	10.23

* and on 30th.

† and on 8 other days.

NORTH-EASTERN DIVISION, contd.

		AUGUST.	
		1887. | Average.	
		In.	In.
Castleton Gardens	St. Mary	4.98	11.22
Dever	...	...	...
Quebec	...	...	...
Fort Maria	...	...	...
New Ramble	...	4.78	5.88
Gayle	...	...	...
Rio Hoe	St. Ann	8.68	6.51
Unity Valley *	...	8.56	7.62
Albion	...	8.44	6.36
Averham Park	...	3.93	...
Bradfield	...	5.00	6.19
Drax Hall	...	3.91	4.21
Seville	...	3.61	4.22
Llandoverly	...	8.20	4.70
Richmond Estate	...	5.60	5.69
Means		5.68	7.62

NORTHERN DIVISION.

		SEPTEMBER.	
		1887. | Average.	
		In.	In.
Lillyfield	St. Ann	...	...
Home Castle	...	5.53	...
Richmond Pen	...	5.53	...
Colobis Pen	Trelawny	3.06	...
Mahogany Hall	...	...	...
Braco	...	3.83	4.55
Arcadia	...	4.03	...
Harmony Hall	...	2.88	4.61
Lancaster	...	3.45	4.80
Vale Royal	...	3.82	4.98
Hyde	...	3.51	7.03
Georgia	...	2.87	4.08
Steelfield	...	2.40	4.51
Oxford	...	3.50	...
Cambridge	...	2.62	4.56
Dry Valley †	...	3.03	...
Lottery	...	4.39	4.77
Falmouth	...	2.81	3.29
Holland Pen	...	3.15	...
Golden Grove	...	7.6	6.90
Pembroke	...	3.85	5.72
Green Park	...	...	...
Phoenix	...	...	...
Tilston	...	8.35	4.26
Orange Valley	...	8.75	2.73
Kent	...	9.80	4.49
Dunee	...	8.66	3.98
Weston Favel	...	7.12	...
Gale's Valley	...	6.75	5.73
Greenwood	St. James	9.28	...
Gullsbro'	...	3.18	...
Spring Vale	...	...	...
Cinnamon Hill	...	...	...
Rose Hall	...	...	...
Running Gut	...	...	...
Leogan	...	5.31	...
Ironshere	...	5.16	4.75
Providence	...	...	...
Montego Bay (Market)	...	4.61	...
Catherine Hall	...	4.85	7.77
Catherine Mount	...	5.22	6.10
Fairfield	...	5.73	...
Means		5.08	4.98

* On the 21st 6 inches 18 parts fell in 2 hours.
 † The rain-gauge at Spring has been moved a mile westwards to Dry Valley.

WEST CENTRAL DIVISION.

		SEPTEMBER.	
		1887. | Average.	
		In.	In.
Linstead	St. Catherine	...	...
Cave Valley	St. Ann	7.80	7.86
Barton Isles	St. Elizabeth	...	...
Appleton	...	6.75	11.55
Windsor Pen	Trelawny	8.12	...
Maroon Town	St. James	4.32	...
Kepp	St. Elizabeth	8.75	11.91
Mount Edgecombe	Westmoreland	3.85	9.43
Windsor Forest	...	...	...
Woodstock	...	10.26	...
Struie	...	5.95	...
Kew Park	...	4.49	...
Hermitage	...	...	...
Chester Castle	Hanover	...	...
Copse	...	3.23	10.79
Haughton Groves	...	...	...
Kempshot	St. James	4.86	...
Anchovy	...	5.50	7.79
Wiltshire	...	8.19	8.65
Eden	...	4.33	...
Round Hill	Hanover	6.70	5.37
Cacoon Castle	...	8.95	9.32
Golden Grove	...	...	...
Great Valley Pen	...	11.85	...
Tryall	...	9.68	4.67
Sweet River	Westmoreland	...	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	4.09	6.93
Fontabelle	...	8.76	...
Belle Isle	...	...	...
King's Valley	...	9.25	...
Haughton Court	Hanover	...	...
Orange Cove	...	9.21	8.19
Abingdon	...	6.29	...
Means		6.90	8.50

SOUTHERN DIVISION.

		SEPTEMBER.	
		1887. | Average.	
		In.	In.
Albion Hospital	St. Thomas	4.37	...
The Abbey	...	7.92	...
Halberstadt	St. Andrew	3.09	...
Hope Plantation	...	3.76	...
Cherry Garden	...	4.64	...
King's House	...	...	...
Monaltrie	...	2.10	7.20
Public Works Office	Kingston	2.15	5.03
Franklyn Town	...	3.18	...
Elletson Road	...	3.32	...
Plumb Point L. H.	...	1.74	4.30
Spanish Town	St. Catherine	...	...
Windsor Park	...	3.69	...
Hog Hole Pen	...	...	...
Headworks, R. C. C.	...	...	...
Old Harbour	...	...	...
Springfield	Clarendon	6.34	...
Farm Plantation	Manchester	7.61	7.65
Stone's Hope	...	8.10	...
Brokenhurst Plant.	...	9.50	...
Pepper	St. Elizabeth	...	...
Long Hill	...	8.26	9.20
Potsdam	...	7.77	...
Gilnock Hall	...	8.18	...
Santa Cruz (Poor House)	...	7.16	...
Black River	...	3.90	5.07
Bloomsbury	...	5.26	...
Means		4.24	6.41

At the Plumb Point Light House the upper gauge is 68 feet above the lower; those gauges registered 1.47 and 1.74 inches respectively.

COMPARATIVE TABLE.
(Based upon the "Average" Stations only.)

	SEPTEMBER.	
	1887.	Average.
	In.	In.
North Eastern Division	5.68	7.62
Northern "	5.08	4.98
West Central "	6.90	8.50
Southern "	4.24	6.41
The Island	5.48	6.88

The largest fall, namely, 11.85 in., was recorded at Great Valley in Hanover; the smallest, 0.75, was recorded at New Haven Gap in the Blue Mountain Range.

THE EARTHQUAKES OF SEPTEMBER 23RD.

The last recorded shock felt in Kingston occurred on June 3rd last year, and it closed a period of unusual activity which was followed by the intervening period of unusual repose.

Referring to the *Second Report on Earthquakes in Jamaica*, No. 77 of the present series, the foundation on which the Island of Jamaica rests was thus briefly stated:—"According to deep-sea soundings there is a submarine ridge which extends from Cape Gracias a Dios on the Mosquito Coast to Jamaica and Hayti. This ridge is about 2,000 fathoms above the bed of the Caribbean sea on the south-eastern side of Jamaica, and the *Bartlett Deep* on the northern side; and it is about 800 fathoms below the surface of the sea. From this ridge certain elevations rise; and the tops of these elevations form the Gorda, Rosalind and Pedro Banks, and the Islands of Jamaica and Hayti." And a foot-note further says, "This ridge is connected at Hayti with a sub-marine plateau which contains Cuba, the Bahama Islands and Florida."

It was this foundation of Jamaica, especially at its connection with Hayti, which was so roughly disturbed on September 23rd. The disturbance first commenced at Bluefields on the Mosquito Coast at 5 a.m., when several light shocks were felt on board the S.S. "Alpin" at anchor there. Then from a centre near the north-west end of the Island of Gonaive a large number of severe shocks travelled outwards, doing damage to houses, wharfs and boats at the towns of Gonaive, Port-au-Prince and Jeremie; and travelling westwards to Jamaica they were strongly felt at the east end, but were greatly reduced in strength before they reached the west end of the Island.

Assuming that this series of shocks occurred at the centre at 6 hr. 31 min. 30 sec. a.m., Kingston Mean Time, and that the vibrations travelled outwards with a velocity of 20 miles a minute, we can draw up the following table:—

Place, or Ship.	Distance from Centre.	Time of travelling from Centre.		Kingston Mean Time of Shock a.m.		Local Time of Shock a.m.	
		Miles.	min. sec.	hr. m. sec.	hr. m. sec.		
Port Gonaive, Hayti	50	2	30	6	34 0	6	50 30
Jeremie "	65	3	15	34	45	45	30
Port-au-Prince "	65	3	15	34	45	52	20
Barque "Evanel"	70	3	30	35	0	47	0
(Santiago de Cuba)	185	9	15	40	45	44	20
Manchioneal, Jamaica	205	10	15	41	45	43	50
Kingston, Jamaica	240	12	0	43	30	43	30
Kent (near Falmouth), Jamaica	295	14	45	6	46 15	6	42 20

All that we know about the time of the occurrence of the shocks at Port Gonaive, Jeremie, and Port-au-Prince, is given in a newspaper paragraph to the effect that they occurred at the same hour as at Kingston.

But more definite information comes from Captain Dow of the barque "Evanel." According to a notice published in *The Gleaner*, the "Evanel" was in the Windward passage, Lat. 19° 51' N., Long. 73° 47' W., on the morning of the 23rd. At 6.47 a.m. severe shocks were felt which lasted two minutes; then after seven minutes there was another series which lasted half a minute; during the subsequent three hours 25 or 30 shocks occurred; and up to 8 p.m., of the 24th, 100 shocks were felt!

Santiago de Cuba did not feel the first series of shocks, and the town has been placed in the above list only to attract attention. At Santiago very severe oscillating shocks lasting for half a minute occurred at 6.58 a.m. local time, according to Mr. Robert Mason; and if we might reduce the time to 6.55 a.m. we could connect this series with the second series felt on board the "Evanel" at 6.56 a.m. local time. Thus the centre of the second series would be near Cape San Nicolas; the shocks were felt on the "Evanel" at 6.44 a.m. Kingston time; they would reach Santiago at 6.51 a.m. Kingston time, or 6.55 a.m. local time. If this be the true state of the case, Santiago did not feel the Kingston shocks, nor did Kingston feel the Santiago shocks; in both cases the shocks followed the ridges of the submarine formation and avoided the *Bartlett Deep*.

At Manchioneal the time was taken by Mr. W. Feurtado of Kingston; his watch showed 6.44 a.m. after the shock which lasted nearly half a minute; hence we have 6.43.30 as the watch-time of commencement. On his return to Kingston he found that his watch had kept time with the (Church) clock, allowing for the fact that the clock had been put back 2 minutes as a correction. Hence the shock occurred at Manchioneal at 6.41.30, Kingston time, which agrees very closely with the table.

At Kingston, Mr. R. Johnstone noted the shock at 6.45 a.m., according to the Port Royal gun of 9 p.m. the previous evening; but the gun is not fired on scientific principles. Again the time noted by a certain chronometer was 6.41 a.m.; so we may be contented with the time in the table above. In Kingston it lasted 27 secs.; at Halfway-Tree the undulations were seen to move the trees; but no sounds were heard.

At Kent, five and a half miles W. by S. of Falmouth, I took the time myself by means of a watch which was afterwards compared with the clock at this Observatory.

By comparing the time at Kent with the time on board the "Evanel," we find that the shock travelled over the difference of the radii, namely, 225 miles in 11 min. 15 sec. Hence the vibrations travelled with a velocity of 20 miles a minute, as adopted in the table above.

Various notices have reached me from different places:—

Boston, Portland.—Three shocks, one at 6.45 a.m., another about noon, and a third at 8 p.m. At Long Bay (5 miles to the S.E.) the sea withdrew for some distance, leaving plenty of fish behind, and advanced again; and this occurred thrice between 8 and 9 a.m. (Mr. F. A. Jenoure.)

The Abbey, St. Thomas.—Three shocks, one at 6.45 a.m.; another at 8.30 a.m.; and a third at 7 p.m. (Dr. Manners.)

Unity Valley, St. Ann.—One at 7 a.m. and another at 8 p.m. (Hon. F. Roper.)

Potsdam, St. Elizabeth.—Shock at 6.44 a.m. (Rev. W. D. Pearman.)

Windward Pen, Trelawny.—Slight tremors at about 7 a.m., lasting over a minute. (Mr. W. D. Hill.)

* Measures of a shock on August 30th, 1885, gave 17 miles a minute.

It still remains to see how the barometer behaved in Kingston; and as the shock travelled to us from a distance it was not one of the shocks we usually experience.

EARTHQUAKE No. 27.

Kingston, September 23rd, 6.43.30 a.m.

Barometer corrected and reduced.

Sep. 22nd	7 a.m.	29.895	
"	3 p.m.	.885	
23rd	6.44 a.m.	.864	} Oscillating between these limits.
"	7 a.m.	.872	
"	8 "	.861	
"	9 "	.862	
"	10 "	.857	
"	11 "	.864	
"	12 noon	.870	
"	1 p.m.	.880	
"	2 "	.887	
"	3 "	29.891	

Mr. Johnstone writes that the column of mercury was oscillating so rapidly at the time of the shock that he could hardly read the instrument. At 7 a.m. the oscillations were still there but reduced in extent, and they died out shortly after 7.15 a.m.—that is to say the oscillations lasted half an hour. Of course when a barometer is moved up and down the mercury oscillates,* but the oscillations due to the moving ground would soon come to rest, as Mr. Johnstone proved experimentally.

These oscillations therefore were due to the disturbance of the atmospheric columns; in the *Second Report* attention was called to show vertical movements of the columns; but this disturbance was due to the shock itself, and not to any previous movements.

We notice a slight fall in the barometer which reached its lowest 3 hours after the shock; and it is to

* Barometers for use on board ship have choked tubes to prevent such action.

study minute changes after a shock that the new form of registration has been adopted; it is not worth while registering in these pages the other elements, for their connection with the pressure is obvious, and they do not promise to be of further service.

DEPRESSIONS WHICH HAVE RECENTLY PASSED JAMAICA.
Continuing the record from the last Report, No. 5 commenced on October 7th, and lasted until the 16th. On the 7th, 8th and 9th the barometer was slightly affected by the Cyclone encountered by the S.S. "Maroon" on those days, Lat. 24° 30' to 22° 29' N., Long. 48° 9' to 52° 39' W., according to a notice in *The Gleaner*; but nevertheless the winds at Kempshot pointed to a disturbance west of Jamaica; and the only effect produced by the "Maroon" cyclone, which was 1,600 miles from Jamaica was to confuse matters by lowering the Kingston barometer below the Kempshot barometer, while the opposite should have held as the disturbance was to the west. Communications were exchanged as to the necessity of a careful watch being kept. The disturbance to the west proved to be a cyclone generating in about Lat. 19° N., Long. 79° 40' W.; and on the 12th the centre began to move on an easterly course. Had this course been maintained the cyclone would have swept the northern shores of Jamaica; every preparation was made for announcing its approach, but at 1 p.m. its movement stopped, and subsequently it took up a westerly course from Jamaica. A circular telegram was despatched from Kingston and posted at all the Telegraph Stations calling attention to the disturbed state of the weather and the position of the disturbance; but an attempt to issue a second circular to relieve apprehension proved a failure, and the matter requires investigation. The only effects of No. 5 were therefore to give strong southerly winds at exposed places at the west end of the Island and, as it left us, to send back a heavy sea, to Montego Bay at least, on the 14th and 15th October.

MAXWELL HALL.

Kempshot Observatory,
Oct. 22nd, 1887.

NOTE.—It is requested that until further notice all Rainfall Returns be addressed to Robert Johnstone, Esq., Kingston P.O.

M. H.
31.10.87.



JAMAICA.

DECEMBER 2, 1887.

No. 87.

WEATHER REPORT

FOR THE MONTH OF

OCTOBER, 1887.

Published by Authority.

JAMAICA:
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET, KINGSTON

1887.

METEOROLOGICAL RESULTS FOR OCTOBER, 1887.

STATION.	ELEVATION.	MEANS FOR THE MONTH.									
		Pressure.		Temperature.		Dew-point.		Vapour.		Humidity.	
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
Kingston	ft. 60	in. 29.944	in. 29.883	° 75.7	° 82.8	° 70.5	° 73.4	in. 0.746	in. 0.823	84	74
King's House	400	29.71	...	77	...	71.9	...	0.782	...	84	...
Castleton Gardens	580	29.44	29.44	72.1	80.2	70.2	...	0.738	...	94	...
Cinchona Plantation	4,907	25.221	...	62.4	...	59.8	...	0.479	...	90	...

STATION.	MEANS FOR THE MONTH.					EXTREMES FOR THE MONTH.					TOTAL RAINFALL.
	Temperature.			Wind.		Temperature.					
	Max.	Min.	Range.	From.	Miles daily.	Max.	Date.	Min.	Date.	Range.	
Kingston	88.0	71.1	16.9	S.E.	45.1	91.5	2	66.6	24	24.9	9.59
King's House	90.1	70.7	19.4	...	...	93	2	69	15†	24	5.85
Castleton Gardens	86.4	71.6	14.8	...	...	87	3*	67	4‡	20	8.63
Cinchona Plantation	69.0	58.8	10.2	E.	...	73.4	3†	54.9	16	18.5	9.45

NOTE—The Barometric pressure is the reading of the Barometer corrected for instrumental error and reduced to 32°, that of Kingston being further reduced to the sea-level. The Thermometers are similarly exposed at all the above stations; their readings have all been corrected.

BLUE MOUNTAIN PEAK.

1887.	Hour.	Temp.		Rain.	Temp.	Weather.	Observer.
		Max.	Min.				
July 3.	1.20 p.m.	70.0	47.0	in. 22.00	° 56	Rain.	B.S.G.
Aug. 28.	1.30 p.m.	75	49	10.20	65	"	H. C. M.
Oct. 28.	noon.	74.6	...	7.50	58	Drizzle.	C. F. S.

THE HEALTH OF KINGSTON.

The following Table shows the number of deaths in Kingston during the month from a few groups of diseases, compared with the average number for the month for a few years past:—

	OCTOBER	
	1887.	Average.
Infantile diseases not otherwise specified	11	13
Lung diseases	17	12
Fever	4	5
Dysentery and Diarrhoea	4	3
Various	36	46
Total	72	79

RAINFALL FOR OCTOBER, 1887.

The first columns contain all the Rainfall returns sent in for publication up to the date of this report, the second columns contain the corresponding average Rainfall according to the Tables published in October, 1883, as Nos. 81 and 83 of the present series of reports, and

to an unpublished supplementary Table of the average rainfall at certain places where gauges have been registered for at least five years. In obtaining the mean Rainfall for the month from the numbers in the first columns, only those stations are considered for which the average Rainfall has been given in the second columns; so that the results of these two columns are directly comparable. These results are more clearly shown in the Comparative Table at the end of these Rainfall returns;—

NORTH-EASTERN DIVISION.		OCTOBER.	
		1887. | Average.	
		In.	In.
Morant Point L. H.	St. Thomas	14.43	13.40
Hordley	...	18.98	14.55
Elmwood (Long Bay)	Portland	...	...
Boston	...	8.44	...
Port Antonio	...	8.69	...
Cinchona Plantation,	St. Andrew	9.45	20.53
New Haven Gap	...	7.25	...
Newton	...	7.07	...
Stony Hill Reformatory	...	8.19	15.60
Castleton Gardens	St. Mary	8.03	12.49
Dover	...	3.70	...

* and on 8 other days.

† and on 17th.

‡ and on 4 other days.

§ and on 5th and 14th.

NORTH-EASTERN DIVISION, *contd.*

		OCTOBER.	
		1887. | Average.	
		In.	In.
Quebec	...	3.88	...
Port Maria	...	4.05	...
New Ramble	...	...	7.03
Gayle	...	3.46	13.98
Bio Hoe	St. Ann	3.28	13.97
Unity Valley	...	10.18	7.85
Albion	...	7.06	7.88
Averham Park	...	3.66	...
Bradfield	...	2.59	7.57
Drax Hall	...	2.27	7.30
Seville	...	2.70	6.86
Llandovery	...	2.60	8.17
Richmond Estate	...	...	9.28
Means		7.23	11.02

NORTHERN DIVISION.

		OCTOBER.	
		1887. | Average.	
		In.	In.
Lillyfield	St. Ann	6.07	9.76
Home Castle	...	2.24	...
Richmond Pen	...	4.80	...
Colchis Pen	Trelawny	3.94	...
Mahogany Hall	...	6.21	5.02
Braco	...	2.92	4.81
Arcadia	...	3.60	...
Harmony Hall	...	...	4.14
Lancaster	...	5.10	5.16
Vale Royal	...	5.25	5.91
Hyde	...	9.86	7.59
Georgia	...	6.13	5.29
Steelfield	...	5.67	5.93
Oxford	...	10.39	...
Cambridge	...	5.64	4.86
Dry Valley	...	9.78	...
Lottery	...	5.78	6.12
Falmouth	...	3.53	...
Holland Pen	...	2.30	...
Golden Grove	...	4.57	6.66
Pembroke	...	4.70	5.17
Green Park	...	...	5.95
Phoenix	...	7.69	...
Tilston	...	5.35	6.69
Orange Valley	...	2.97	5.31
Kent	...	2.85	5.65
Dundee	...	3.74	5.70
Weston Favel	...	...	...
Gale's Valley	...	2.51	7.43
Greenwood	St. James	3.63	...
Guildbro'	...	7.05	...
Spring Vale	...	...	8.62
Cinnamon Hall	...	...	...
Rose Hall	...	...	...
Running Gut	...	...	5.63
Leogan	...	5.44	...
Ironshore	...	4.21	5.25
Providence	...	...	...
Montego Bay (Market)	...	...	...
Catherine Hall	...	4.98	6.73
Catherine Mount	...	7.06	7.67
Fairfield	...	7.30	...
Means		5.18	6.15

WEST CENTRAL DIVISION.

		OCTOBER.	
		1887. | Average.	
		In.	In.
Linstead	St. Catherine	16.68	9.16
Cave Valley	St. Ann	7.19	10.41
Mandeville	Manchester	12.81	...

WEST CENTRAL DIVISION, *contd.*

		OCTOBER.	
		1887. | Average.	
		In.	In.
Barton Isles	St. Elizabeth	...	...
Appleton	...	13.54	12.10
Windsor Pen	Trelawny	10.89	...
Maroon Town	St. James	15.51	...
Kepp	St. Elizabeth	11.15	11.30
Mount Edgecombs	Westmoreland	14.29	8.93
Windsor Forest	...	15.97	...
Woodstock	...	...	...
Struie	...	...	...
Kew Park	...	...	...
Hermitage	...	...	...
Chester Castle	Hanover	11.72	...
Copse	...	12.05	10.94
Haughton Grove	...	...	...
Kempshot	St. James	6.16	...
Anchovy	...	9.86	7.13
Wiltshire	...	7.11	7.90
Eden	...	11.80	...
Round Hill	Hanover	4.30	5.45
Cacoon Castle	...	11.26	8.11
Golden Grove	...	...	9.74
Great Valley Pen	...	11.45	...
Tryall	...	8.89	6.85
Sweet River	Westmoreland	12.43	...
Mackfield	...	11.14	...
Windsor (Sav.-la-Mar)	...	13.12	8.42
Fontabelle	...	16.45	...
Belle Isle	...	12.75	...
King's Valley	...	24.88	...
Haughton Court	Hanover	...	...
Orange Cove	...	7.20	9.06
Abingdon	...	5.06	...
Means		10.51	8.97

SOUTHERN DIVISION.

		OCTOBER.	
		1887. | Average.	
		In.	In.
Albion Hospital	St. Thomas	8.95	...
The Abbey	...	12.63	...
Halberstadt	St. Andrew	9.08	...
Hope Plantation	...	6.73	...
Cherry Garden	...	7.15	...
King's House	...	5.85	12.19
Monaltrie	...	6.38	11.64
Public Works Office	Kingston	10.06	10.28
Franklyn Town	...	9.94	...
Elletson Road	...	9.59	...
Plumb Point L. H.	...	9.55	9.96
Spanish Town	St. Catherine	9.63	8.52
Windsor Park	...	9.62	...
Hog Hole Pen	...	8.94	8.09
Headworks, R. O. C.	...	9.42	10.24
Old Harbour	...	9.34	...
Springfield	Clarendon	13.06	...
Farm Plantation	Manchester	15.36	14.32
Stone's Hope	...	11.57	...
Brokenhurst Plant.	...	...	...
Pepper	St. Elizabeth	11.65	10.07
Long Hill	...	14.23	8.85
Potsdam	...	10.38	...
Gilnoox Hall	...	8.38	...
Santa Cruz (Poor House)	...	7.55	...
Black River	...	9.22	9.32
Bloomsbury	...	13.21	...
Means		10.03	10.50

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered 8.28 and 9.55 inches respectively.

COMPARATIVE TABLE.
(Based upon the "Average" Stations only.)

	OCTOBER.	
	1887.	Average.
North Eastern Division	In. 7.22	In. 11.02
Northern "	5.18	6.15
West Central "	10.51	8.97
Southern "	10.03	10.50
The Island	8.24	9.16

The largest fall, namely, 25 inches, was recorded at King's Valley in Westmoreland; and the smallest, two inches, was recorded at Home Castle in St. Ann.

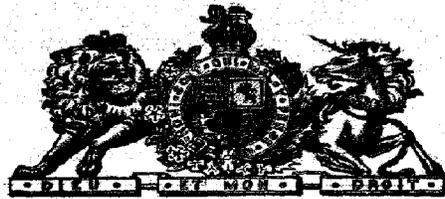
In the last Report for September, reference was made to Depression No. 5 caused by the generation of a Cyclone between the 7th and 12th October, to the W. N.W. of Jamaica. The seasons then experienced in the West Central and Southern Divisions brought our Rainfall up to nearly the average.

There was no further depression worth recording during the remainder of the month.

ROBT. JOHNSTONE.

Kingston, 26th November, 1887.

NOTE—It is requested that all Rainfall Returns may be addressed to me until further notice.



JAMAICA.

DECEMBER 22, 1887.

No. 68.

WEATHER REPORT

FOR THE MONTH OF

NOVEMBER, 1887.

Published by Authority.

JAMAICA:
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET, KINGSTON
1887.

METEOROLOGICAL RESULTS FOR NOVEMBER, 1887.

STATION.	ELEVATION.	MEANS FOR THE MONTH.									
		Pressure.		Temperature.		Dew-point.		Vapour.		Humidity.	
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
Kingston	60	29.955	29.889	74.0	84.0	68.6	73.3	0.699	0.820	84	71
King's House	400	29.67	...	74.1	...	71.2	...	0.764	...	91	...
Castleton Gardens	580	29.47	29.46	73.0	81.7	70.6	79.7	0.749	1.013	92	94
Cinchona Plantation	4,907	25.226	...	60.7	...	57.0	...	0.465	...	88	...

STATION.	MEANS FOR THE MONTH.					EXTREMES FOR THE MONTH.					TOTAL RAINFALL.
	Temperature.			Wind.		Temperature.					
	Max.	Min.	Range.	From.	Miles daily.	Max.	Date.	Min.	Date.	Range.	
Kingston	88.6	70.3	18.3	Var.	34.6	91.1	13th	64.0	29th	27.1	1.89
King's House	89.4	69.3	20.1	...	...	91	1st*	66	29th	25	2.54
Castleton Gardens	84.3	69.5	14.8	...	...	85	9th†	65	28th	20	16.84
Cinchona Plantation	68.1	57.6	10.5	...	...	70	13th	51	28th°	19	8.27

NOTE—The Barometric pressure is the reading of the Barometer corrected for instrumental error and reduced to 32°, that of Kingston being further reduced to the sea-level. The Thermometers are similarly exposed at all the above stations; their readings have all been corrected.

BLUE MOUNTAIN PEAK.

1887.	Hour.	Temp.		Rain.	Temp.	Weather.	Observer.
		Max.	Min.				
July 3.	1.20 p.m.	70.0	47.0	22.00	56	Rain.	B.S.G.
Aug. 28.	1.30 p.m.	75	40	10.20	65	"	H. C. M.
Oct. 28.	noon.	74.6	...	7.50	58	Drizzle.	C. F. S.

THE HEALTH OF KINGSTON.

The following Table shows the number of deaths in Kingston during the month from a few groups of diseases, compared with the average number for the month for a few years past:—

	NOVEMBER	
	1887.	Average.
Infantile diseases not otherwise specified	17	14
Lung diseases	19	14
Fever	8	8
Dysentery and Diarrhoea	0	3
Various	31	55
Total	75	94

RAINFALL FOR NOVEMBER, 1887.

The first columns contain all the Rainfall returns sent in for publication up to the date of this report, the second columns contain the corresponding average Rainfall according to the Tables published in October, 1883, as Nos. 31 and 33 of the present series of reports, and

to an unpublished supplementary Table of the average Rainfall at certain places where gauges have been registered for at least five years. In obtaining the mean Rainfall for the month from the numbers in the first column, only those stations are considered for which the average Rainfall has been given in the second column; so that the results of these two columns are directly comparable. These results are more clearly shown in the Comparative Table at the end of these Rainfall returns:—

NORTH-EASTERN DIVISION.		NOVEMBER.	
		1887.	Average.
		In.	In.
Morant Point L. H.	St. Thomas	4.70	8.72
Hordley	...	6.17	10.19
Elmwood (Long Bay)	Portland	...	...
Boston	...	11.57	...
Port Antonio	...	17.78	...
Cinchona Plantation,	St. Andrew	8.27	18.66
New Haven Gap	...	14.87	...
Newton	...	4.25	...
Stony Hill Reformatory	...	5.60	8.65
Castleton Gardens	St. Mary	16.84	10.68
Dover	...	25.10	...

* and 5th. † and on 7 other days. ° and on 29th.

NORTH-EASTERN DIVISION, contd.

		NOVEMBER.	
		1887. | Average.	
		In.	In.
Quebec	...	6.84	...
Port Maria	...	7.41	...
New Ramble	...	...	11.69
Gayle	...	26.10	...
Rio Hoe	St. Ann	9.82	8.83
Unity Valley	...	13.79	7.59
Albion	...	13.98	10.23
Averham Park	...	10.32	...
Bradfield	...	8.18	...
Drax Hall	...	...	11.06
Seville	...	...	9.31
Llandovery	...	...	7.51
Richmond Estate	...	18.00	8.45
Means		10.69	9.67

NORTHERN DIVISION.

		NOVEMBER.	
		1887. | Average.	
		In.	In.
Lillyfield	St. Ann	19.98	10.23
Home Castle	...	...	...
Richmond Pen	...	...	...
Colchis Pen	Trelawny	...	...
Mahogany Hall	...	7.42	4.19
Braco	...	...	6.13
Arcadia	...	...	...
Harmony Hall	...	...	...
Lancaster	...	...	6.76
Vale Royal	...	...	7.05
Hyde	...	...	7.52
Georgia	...	...	6.10
Steelfield	...	...	5.74
Oxford	...	...	...
Cambridge	...	...	4.64
Dry Valley*	...	7.98	...
Lottory	...	...	4.93
Falmouth	...	8.95	...
Holland Pen	...	...	...
Golden Grove	...	9.05	5.71
Pembroke	...	7.53	5.29
Green Park	...	...	6.15
Phoenix	...	7.12	...
Tilston	...	8.70	5.04
Orange Valley	...	6.06	5.24
Kent	...	7.05	4.00
Dundee	...	8.94	7.52
Weston Favel	...	...	...
Gale's Valley	...	10.79	4.73
Greenwood	St. James	6.39	...
Guildbro'	...	17.68	...
Spring Vale	...	...	5.03
Cinnamon Hall	...	...	...
Rose Hall	...	...	...
Running Gut	...	...	...
Leogan	...	5.05	...
Iroushore	...	8.21	3.20
Providence	...	...	...
Montego Bay (Market)	...	6.43	...
Catherine Hall	...	7.85	3.40
Catherine Mount	...	6.65	4.16
Fairfield	...	5.52	...
Means		9.03	5.23

WEST CENTRAL DIVISION.

		NOVEMBER.	
		1887. | Average.	
		In.	In.
Linstead	St. Catherine	5.19	4.89
Cave Valley	St. Ann	...	5.26
Mandeville	Manchester	...	...

* Gauge over flowed on 6th.

WEST CENTRAL DIVISION, contd.

		NOVEMBER.	
		1887. | Average.	
		In.	In.
Barton Isles	St. Elizabeth	...	...
Appleton	...	4.61	6.02
Windsor Pen	Trelawny	5.38	...
Maroon Town	St. James	...	...
Kepp	St. Elizabeth	4.27	5.93
Mount Edgecombe	Westmoreland	6.11	4.72
Windsor Forest	...	...	...
Woodstock	...	8.57	...
Struie	...	6.40	...
Kew Park	...	...	...
Hermitage	...	...	...
Chester Castle	Hanover	7.77	...
Copae	...	...	7.61
Haughton Grove	...	...	...
Kempshot	St. James	...	...
Anchovy	...	3.69	3.77
Wiltshire	...	5.53	5.58
Eden	...	5.12	...
Round Hill	Hanover	5.30	3.50
Cacoon Castle	...	5.73	5.89
Golden Grove	...	...	5.89
Great Valley Pen	...	6.00	...
Tryall	...	3.97	3.64
Sweet River	Westmoreland	...	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	3.62	4.52
Fontabelle	...	...	...
Belle Isle	...	8.70	...
King's Valley	...	10.38	...
Haughton Court	Hanover	...	...
Orange Cove	...	...	...
Abingdon	...	3.45	...
Means		4.31	4.35

SOUTHERN DIVISION.

		NOVEMBER.	
		1887. | Average.	
		In.	In.
Albion Hospital	St. Thomas	...	...
The Abbey	...	3.04	...
Halberstadt	St. Andrew	5.75	...
Hope Plantation	...	...	...
Cherry Garden	...	...	...
King's House	...	2.54	2.44
Monaltrie	...	3.44	5.71
Public Works Office	Kingston	1.80	3.90
Franklyn Town	...	2.35	...
Elletson Road	...	1.89	...
Plumb Point L. H.	...	1.05	3.50
Spanish Town	St. Catherine	2.34	2.56
Windsor Park	...	4.18	...
Hog Hole Pen	...	4.62	3.52
Headworks, R. O. C.	...	5.51	5.00
Old Harbour	...	2.19	...
Springfield	Clarendon	2.99	...
Farm Plantation	Manchester	...	5.40
Stone's Hope	...	6.07	...
Brokenhurst Plant.	...	...	...
Pepper	St. Elizabeth	6.53	5.09
Long Hill	...	...	3.83
Potsdam	...	9.01	...
Gilnoc Hall	...	...	...
Santa Cruz (Poor House)	...	...	...
Black River	...	3.35	5.43
Bloomsbury	...	6.13	...
Means		3.46	4.13

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered 0.89 and 1.05 inches respectively.

COMPARATIVE TABLE.
(Based upon the "Average" Stations only.)

	NOVEMBER.	
	1867. | Average.	
	In.	In.
North Eastern Division	10.69	9.67
Northern "	9.08	5.28
West Central "	4.31	4.85
Southern "	3.46	4.13
The Island	6.58	5.97

The largest fall, namely, 26.10 in. was recorded at Gayle in St. Mary; and the smallest 1.05 inches was recorded at the Plumb Point Lighthouse.

The rainfall in the North Eastern and Northern Divisions was above the average, while in the West Central and Southern Divisions the fall was a little under the average.

At New Haven Gap (in the Blue Mountain Range, elevation about 5,600 feet) the mean maximum and minimum temperatures were 77.^o2 and 50.^o7 respectively—from two readings.

The thermometer at Cinchona Plantation whose bulb

is 6 feet below the surface indicated the usual temperature of 63^o—from one reading—this temperature being nearly that of the mean temperature of the air at the Plantation as has already been pointed out in previous Weather Reports.

Dr. Manners reports a light shock of earthquake at The Abbey in the district of St. David between 1 and 2 p.m. on the 11th and another light shock between 11 and 12 p.m. on the 20th.

The Revd. W. Teall of Annotto Bay reports a sharp shock of earthquake felt at that place by himself and other persons at 4 a.m. on the 16th; it lasted three or four seconds and appeared to be travelling from the S.E.

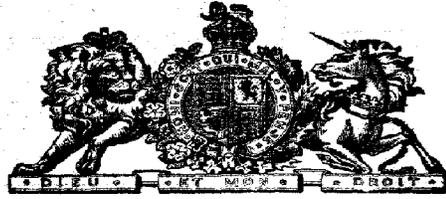
The "Northers" at the end of November and the beginning of December which were followed by a cold wave that gave us the lowest temperature, viz., 56.^o7, experienced since these observations have been taken in Kingston will be perhaps more properly referred to in the Weather Report for this month and any further information on the subject not already reported will be received with pleasure.

ROBT. JOHNSTONE.

Kingston, 17th December, 1887.

NOTE.—It is requested that all Rainfall Returns may be sent to me until further notice, and it is particularly asked that they may be sent in at as early a date after the close of each month as possible.

R. J.



JAMAICA.

FEBRUARY 16, 1888.

No. 89.

WEATHER REPORT

FOR THE MONTH OF

DECEMBER, 1887.

Published by Authority.

JAMAICA;
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET, KINGSTON

1888.

METEOROLOGICAL RESULTS FOR DECEMBER, 1887.

STATION.	ELEVATION.	MEANS FOR THE MONTH.									
		Pressure.		Temperature.		Dew-point.		Vapour.		Humidity.	
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
	ft.	in.	in.	°	°	°	°	in.	in.		
Kingston	60	30.018	29.955	69.1	83.3	63.5	70.4	0.586	0.744	83	65
King's House	400	29.70	29.70	69.6	81.4	63.8	76.6	0.589	0.912	82	85
Castleton Gardens	580	29.50	29.51	70.8	81.2	68.0	78.2	0.684	0.968	91	91
Cinchona Plantation A	4,907	26.252	...	67.9	...	51.2	...	0.377	...	78	...

STATION.	MEANS FOR THE MONTH.					EXTREMES FOR THE MONTH.					TOTAL RAINFALL.
	Temperature.			Wind.		Temperature.					
	Max.	Min.	Range.	From.	Miles daily.	Max.	Date.	Min.	Date.	Range.	
	°	°	°			°		°			inch.
Kingston	88.0	65.7	22.3	S.E.	41.6	91.3	23rd	56.7	4th	34.6	0.08
King's House	86.9	66.8	20.1	...	...	90	14th*	64	29th	26	0.26
Castleton Gardens	84.0	63.6	20.4	...	...	85	4th†	58	16th	27	1.76
Cinchona Plantation A	67.8	55.0	12.8	S.E.	82.5	69.5	26th‡	47.0	5th	22.5	2.95

NOTE.—The Barometric pressure is the reading of the Barometer corrected for instrumental error and reduced to 32°, that of Kingston being further reduced to the sea-level. The Thermometers are similarly exposed at all the above stations; their readings have all been corrected.

BLUE MOUNTAIN PEAK.

1887.	Hour.	Temp.		Rain.	Temp.	Weather.	Observer.
		Max.	Min.				
July. 3.	1.20 p.m.	70.0	47.0	in.	°	Rain.	B. S. G.
Aug. 28.	1.30 p.m.	75	40	10.20	65	"	H. C. M.
Sept. 28.	noon.	74.6	...	7.50	58	Drizzle.	C. F. S.
Oct. 27.		...	...	9.20	...	The instruments were returned to screen to-day.	H. C. M.
Nov. 9.	2 p.m.	76	48.2	9.16	63	Bright sun. Calm and hazy.	B. S. G.
Dec. 3.	3 p.m.	69	44.2	19.65	46	Very cold. High wind from N.E. with heavy clouds and mist.	B. S. G.

THE HEALTH OF KINGSTON.

The following Table shows the number of deaths in Kingston during the month from a few groups of diseases, compared with the average number for the month for a few years past:—

	DECEMBER	
	1887.	Average.
Infantile diseases not otherwise specified	11	17
Lung diseases	25	14
Fever	14	10
Dysentery and Diarrhoea	5	5
Various	42	55
Total	97	101

RAINFALL FOR DECEMBER, 1887.

The first columns contain all the Rainfall returns sent in for publication up to the date of this report, the second columns contain the corresponding average Rainfall according to the Tables published in October, 1883,

as Nos. 31 and 33 of the present series of reports, and to an unpublished supplementary Table of the average Rainfall at certain places where gauges have been registered for at least five years. In obtaining the mean Rainfall for the month from the numbers in the first columns, only those Stations are considered for which the average Rainfall has been given in the second columns; so that the results of these two columns are directly comparable. These results are more clearly shown in the Comparative Table at the end of these Rainfall returns:—

NORTH-EASTERN DIVISION.		DECEMBER.	
		1887.	Average.
		In.	In.
Merant Point L. H.	St. Thomas	0.87	6.78
Hordley		1.26	8.57
Elmwood (Long Bay)	Portland	1.14	...
Boston	...	2.10	...
Port Antonio	...	3.59	...
Cinchona Plantation,	St. Andrew	2.95	13.83
New Haven Gap	...	8.56	...
Newton	...	...	...
Stony Hill Reformatory	...	0.79	8.71

* and 29th. † and on 6 other days. ‡ and on 28th.
A The means given for Cinchona Plantation are only for 21 (different) days.

NORTH-EASTERN DIVISION, contd.

		DECEMBER.	
		1887. | Average.	
		In.	In.
Castleton Gardens	St. Mary	1.76	13.17
Dover	...	1.60	...
Quebec	...	...	...
Port Maria	...	0.92	...
New Ramble	...	...	10.58
Gayle	...	1.00	...
Rio Hoe	St. Ann	0.15	11.49
Unity Valley	...	0.76	10.74
Albion	...	1.02	8.07
Averham Park	...	1.58	...
Bradfield	...	1.17	10.91
Drax Hall	...	...	8.57
Seville	...	0.75	8.10
Llandoverly	...	0.70	8.47
Richmond Estate	...	0.80	7.14
Means		1.08	9.25

NORTHERN DIVISION.

		DECEMBER.	
		1887. | Average.	
		In.	In.
Lillyfield	St. Ann	1.95	13.61
Home Castle	...	...	...
Richmond Pen	...	...	...
Colchis Pen	Trelawny	...	...
Mahogany Hall	...	0.59	8.76
Braco	...	...	7.20
Arcadia	...	...	...
Harmony Hall	...	...	7.24
Lancaster	...	...	7.57
Vale Royal	...	...	9.29
Hyde	...	...	8.08
Georgia	...	...	8.41
Steelfield	...	...	7.99
Oxford	...	...	...
Cambridge	...	...	6.01
Dry Valley	...	0.48	...
Lottery	...	...	5.83
Falmouth	...	0.63	...
Holland Pen	...	...	...
Golden Grove	...	0.05	5.33
Pembroke	...	...	5.26
Green Park	...	...	5.87
Phoenix	...	0.25	...
Tilston	...	0.23	5.67
Orange Valley	...	0.69	6.99
Kent	...	0.52	4.57
Dundee	...	0.30	6.46
Weston Favel	...	0.25	...
Gale's Valley	...	0.00	5.60
Greenwood	St. James	0.52	...
Gullsbro'	...	0.00	...
Spring Vale	...	...	6.67
Cinnamon Hall	...	...	...
Rose Hall	...	...	...
Banning Gut	...	...	5.71
Leogan	...	0.40	...
Ironsore	...	0.62	3.18
Providence	...	...	...
Montego Bay (Markot)	...	0.35	...
Catherine Hall	...	0.46	3.32
Catherine Mount	...	0.40	6.74
Parfield	...	0.29	...
Means		0.53	5.93

WEST CENTRAL DIVISION.

		DECEMBER.	
		1887. | Average.	
		In.	In.
Linstead	St. Catherine	0.10	2.44
Cave Valley	St. Ann	...	2.75

WEST CENTRAL DIVISION, contd.

		DECEMBER.	
		1887. | Average.	
		In.	In.
Mandeville	Manchester	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	...	3.34
Windsor Pen*	Trelawny	0.64	...
Maroon Town	St. James	...	...
Kepp	St. Elizabeth	...	2.98
Mount Edgecombe	Westmoreland	0.32	3.23
Windsor Forest†	...	1.36	...
Woodstock	...	0.59	...
Struie	...	0.00	...
Kow Park	...	...	...
Hermitage	...	...	...
Chester Castle	Hanover	0.08	...
Copse	...	0.00	4.67
Haughton Grove	...	...	...
Kempshot	St. James	...	...
Anchovy	...	0.20	2.48
Wiltshire	...	0.25	2.81
Eden	...	0.50	...
Round Hill	Hanover	0.00	1.96
Cacoon Castle	...	...	6.76
Golden Grove	...	...	2.93
Great Valley Pen	...	1.50	...
Tryall	...	1.10	2.08
Sweet River	Westmoreland	0.37	...
Mackfield	...	0.00	...
Windsor (Sav.-la-Mar)	...	0.13	2.27
Fontabelle	...	0.32	...
Belle Isle	...	0.15	...
King's Valley	...	0.87	...
Haughton Court	Hanover	...	...
Orange Cove	...	...	4.06
Abingdon	...	...	...
Means		0.26	2.74

SOUTHERN DIVISION.

		DECEMBER.	
		1887. | Average.	
		In.	In.
Albion Hospital	St. Thomas	...	...
The Abbey	...	...	...
Halberstadt	St. Andrew	0.85	...
Hope Plantation	...	0.13	...
Cherry Garden	...	...	...
King's House	...	0.26	0.37
Monaltrie	...	0.47	2.37
Public Works Office	Kingston	0.43	2.33
Franklyn Town	...	0.35	...
Elletson Road	...	0.08	...
Plumb Point L. H.	...	0.09	1.57
Spanish Town	St. Catherine	0.01	1.66
Windsor Park	...	1.00	...
Hog Hole Pen	...	0.25	2.00
Headworks, R. C. C.	...	1.50	1.76
Old Harbour	...	1.25	...
Springfield	Clarendon	0.00	...
Farm Plantation	Manchester	0.85	2.46
Stone's Hope	...	0.26	...
Brokenhurst Plant.	...	...	...
Pepper	St. Elizabeth	...	1.90
Long Hill	...	1.72	3.40
Potsdam	...	0.48	...
Gilnoo's Hall	...	...	...
Santa Cruz (Poor House)	...	...	...
Black River	...	0.00	2.29
Bloomsbury	...	0.67	...
Means		0.56	2.02

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered 0.07 and 0.09 inches respectively.

* The rainfall for November was 9.38 not 5.88 as stated in the Report for that month. † No rain fell from 19th Nov. to 30th Dec.

COMPARATIVE TABLE.
(Based upon the "Average" Stations only.)

	DECEMBER.	
	1887. | Average.	
	In.	In.
North Eastern Division.	1.08	9.25
Northern "	0.53	5.93
West Central "	0.26	2.74
Southern "	0.56	2.02
The Island	0.61	4.98

The rainfall for December was remarkably deficient, only one-eighth of the average quantity having fallen.

The largest fall, namely, 8 inches and a half, was recorded at New Haven Gap in the Blue Mountains while no rain was recorded at the following stations: Gale's Valley and Guilsbro' in the Northern District, Struie, Copse, Round Hill and Mackfield in the West Central Division, and Springfield and Black River in the Southern Division.

The following Table will be of interest in connection with the present subject; it was formed by taking the mean of the results for each Division of the Island as published in Weather Reports Nos. 31, 20, 17, 58, 71 and 82; the figures for 1887 are of course only approximate:

ISLAND RAINFALL FROM 1870 TO 1887.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1870	3.99	4.34	3.10	2.79	17.38	3.58	4.32	5.72	8.05	16.74	12.50	6.90	89.47
1871	2.40	1.60	2.29	3.46	6.43	1.98	3.79	3.46	5.70	8.88	5.88	4.22	50.69
1872	3.00	2.84	3.06	2.06	5.18	2.42	2.89	5.24	4.55	6.09	3.13	4.73	45.19
1873	8.15	1.94	5.47	1.15	5.06	2.58	2.56	7.51	10.73	8.57	3.53	5.81	63.06
1874	3.44	2.20	0.61	4.40	10.64	3.96	2.51	9.65	6.82	11.69	10.52	2.49	68.93
1875	2.57	0.66	2.59	3.05	8.54	3.74	3.87	5.13	7.60	5.58	2.34	6.74	52.41
1876	6.09	0.96	1.63	4.68	8.24	5.40	8.15	5.06	5.19	11.36	8.96	5.72	71.35
1877	5.94	1.18	5.38	2.91	15.03	6.50	4.68	1.76	5.01	4.50	7.63	7.88	68.40
1878	6.36	2.80	2.78	0.70	4.86	6.63	5.85	10.80	7.43	11.29	7.32	9.61	76.42
1879	2.81	5.30	6.49	7.28	9.14	10.64	4.47	12.32	7.38	15.96	5.29	1.76	88.84
Means.	4.46	2.38	3.34	3.25	9.05	4.74	4.31	6.66	6.85	10.07	6.71	5.59	67.41
1880	4.36	0.96	1.10	2.77	11.60	3.09	3.86	9.58	3.97	4.00	2.21	7.94	65.44
1881	1.22	4.01	1.30	4.63	10.28	5.56	4.77	6.21	7.68	12.08	7.52	3.34	68.60
1882	2.92	1.93	3.54	3.32	8.22	2.33	3.76	4.80	8.78	8.96	5.36	3.95	57.87
1883	5.49	3.50	4.08	3.34	5.29	4.98	3.15	5.42	7.82	8.15	5.12	2.92	59.26
1884	4.72	3.44	2.51	1.85	6.72	6.89	2.52	5.06	6.23	9.52	5.00	2.44	66.90
1885	1.73	1.49	1.47	4.73	4.90	3.32	3.01	6.19	6.22	6.37	4.74	15.69	59.86
1886	5.23	4.65	2.68	6.39	5.30	24.46	6.22	13.54	5.90	7.98	3.70	5.66	91.71
1887	6.36	2.24	2.17	4.00	9.15	8.51	7.01	6.79	5.48	8.24	6.58	0.61	66.14

At New Haven Gap (in the Blue Mountain Range, elevation about 5,600 feet) the mean maximum and minimum temperatures were 74°7 and 47°0 respectively — from two readings.

At Cinchona Plantation the Thermometer, whose bulb is 6 feet below the surface, indicated the temperature of 62° at the one reading taken.

Northers, caused by shallow barometric depressions, were felt on the northside of the Island almost continuously from the 21st November to the 2nd or 3rd of December. They were of sufficient strength to be felt on the Southside at Kingston on the 21st, 28th and 30th November and the 1st December, and during the above-mentioned time were blowing freshly across the Caribbean Sea down to Colon, At Jeremie and Jacmel in Hayti some damage was done and at the former place some sailing ships were driven ashore.

On the passing away of the depressions we experienced in Jamaica as on previous similar occasions abnormally low temperatures as the following minimum readings of the Thermometer will shew.

ISLAND RAINFALL.

	Rainfall Recorded.	Average Rainfall.
	In.	In.
1887.		
January	5.36	4.27
February	2.24	2.55
March	2.17	3.22
April	4.00	3.75
May	9.15	8.74
June	8.51	5.44
July	7.01	4.33
August	6.79	6.98
September	5.48	6.88
October	8.24	9.16
November	6.58	5.97
December	0.61	4.98
The year	66.14	62.32

The rainfall therefore for the year 1887 for the whole Island was just the average, the chief excesses of three and two-and-a-half inches in June and July respectively being counterbalanced by the deficiencies of one-and-a-half and four inches respectively in September and December.

Kingston 4th December, 1887 56°7

5th " " 59°8

6th " " 59°5

7th " " 59°6

The temperature on the 4th, viz, 56°7 is the lowest recorded in Kingston in the last eight years during which such readings have been taken. At Cinchona Plantation on the 5th the temperature of 47°0 was recorded.

At the same time the daily ranges of temperature in Kingston were very great, being for the 4th, 5th, 6th and 7th 29°3, 25°5, 27°5 and 26°6 respectively. The connection between an increase in Dysentery and Diarrhoea and large daily ranges of temperature has been pointed out in the earlier numbers of these Monthly Reports and consequently a note is made in the daily weather report whenever the daily range of temperature for the preceding day has exceeded 20°. It will be seen from previous figures that the mean daily range for December was 22°3.

KINGSTON, JAMAICA—MEAN RESULTS FOR THE YEAR 1887.—ELEVATION 60 FEET.

Month.	Means for the Month.												
	Pressure.		Temperature.					Dewpoint.		Vapour.		Humidity.	
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.
	In.	In.	°	°	°	°	°	°	°	In.	In.	89	68
January	30.071	30.043	68.7	82.4	87.5	65.9	21.6	65.2	70.5	0.622	0.746	89	68
February	30.117	30.049	68.6	81.9	87.3	65.1	22.2	64.2	67.6	0.601	0.675	86	65
March	30.086	29.993	70.6	81.7	86.3	64.3	22.0	63.2	66.6	0.580	0.652	77	69
April	30.044	29.983	75.7	82.1	87.3	65.5	18.3	67.8	71.9	0.580	0.759	77	70
May	29.990	29.988	78.9	84.0	88.2	71.1	17.1	69.8	71.5	0.728	0.772	74	69
June	29.979	29.936	79.3	84.0	88.5	73.0	15.5	70.3	72.1	0.740	0.787	74	68
July	30.036	29.997	79.0	86.0	90.3	72.4	17.9	69.9	73.8	0.731	0.831	74	66
August	29.952	29.914	77.6	84.1	89.1	72.1	17.0	71.1	74.2	0.761	0.846	81	74
September	29.963	29.906	77.7	85.7	90.4	72.4	18.0	71.3	74.2	0.766	0.846	79	68
October	29.944	29.883	75.7	82.3	88.0	71.1	16.9	70.5	73.4	0.746	0.823	84	74
November	29.955	29.889	74.0	84.0	88.6	70.3	18.3	68.6	73.3	0.699	0.820	84	71
December	30.018	29.955	69.1	83.3	88.0	65.7	22.3	63.5	70.4	0.586	0.744	83	65
Means.	30.011	29.953	74.6	83.4	88.3	69.3	19.0	68.0	71.6	0.687	0.775	80	69

The barometer pressure is the reading of the aneroid corrected for barometric error and reduced to 32° and sea level.

	Means for the month.				Extremes for the month.					Total Rainfall	REMARKS.
	Cloud Percentage.		Wind.		Temperature.						
	7 a.m.	3 p.m.	From.	Miles Daily.	Max.	Date.	Min.	Date.	Range.		
January	31	41	Var.	53	90.8	23	61.2	16*	29.6	0.30	Fair. Light shock of earthquake 9.57 a.m. 9th
February	32	43	S.E.	61	90.6	3	59.1	28	31.5	0.27	Fine.
March	18	41	S.E.	51	90.1	30	58.3	12	31.8	0.13	Fine.
April	43	73	S.E.	53	90.8	21	65.6	5	25.2	1.46	Fair with showers.
May	46	82	S.E.	50	90.5	31	63.5	4	21.0	4.50	Fair—"Seasons" in middle of month. Hailstorm on 2nd.
June	62	89	S.E.	98	92.1	2	68.4	6	23.7	5.27	Fair with showers.
July	53	72	S.E.	69	93.3	21	69.0	2	24.3	7.14	Fair, with disturbance towards end of month.
August	53	82	Var.	40	90.9	1	69.3	13	21.6	3.63	Fair, with afternoon showers.
September	54	81	Var.	46	93.1	9	69.6	4	23.5	3.32	Cloudy. Strong shock of earthquake 6 hr. 43 m. 30 sec. a.m., 23rd.
October	61	74	S.E.	45	91.5	2	66.6	24	24.9	9.59	"Seasons" first half, fair latter part of month.
November	40	61	Var.	35	91.1	13	64.0	29	27.1	1.89	Fair, with northers at end of month.
December	25	46	S.E.	42	91.3	23	56.7	4	34.6	0.08	Fine.
Total Means.	43	65	S.E.	54	91.3		64.5		26.8	37.58	

* And on 3 following days.

ROBT. JOHNSTONE,
7th February, 1888.