

JAMAICA.

APRIL 2, 1889.

No. 102.

WEATHER REPORT

FOR THE MONTH OF

JANUARY, 1889.

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1889

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

1889.

National Oceanic and Atmospheric Administration

Climate Database Modernization Program

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METEOROLOGICAL RESULTS FOR JANUARY, 1889.

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	30.017	29.962	70.2	84.3	65.5	70.7	0.628	0.751	85	64
King's House	400	29.73	29.63	69.2	82.6	65.3	76.8	0.624	0.921	87	83
Castleton Gardens	580	29.60	29.57	65.8	78.3	65.3	69.7	0.624	0.726	98	75
Cinchona Plantation	4,907	25.271	25.238	58.7	63.1	55.3	61.1	0.437	0.539	88	92

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	88.5	68.6	19.9	S. E.	57.7	92.1	24	64.8	27	27.3	1.70
King's House	...	61.8	...	...	...	...	...	59	8*	...	2.68
Castleton Gardens	81.6	65.6	16.0	...	...	84	9	60	8†	24	5.72
Cinchona Plantation	67.6	56.8	12.8	E.	...	70	10	48	27	22	6.70

*And 3 other days.

†And 5 other days.

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:—

	JANUARY.	
	1889.	Average.
Infantile diseases not otherwise specified	11	25
Lung diseases	21	19
Fever	10	5
Dysentery and Diarrhoea	8	7
Various	48	51
Total	98	107

RAINFALL FOR JANUARY, 1889.

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according to the Tables published in October, 1883, as Nos. 31 and 33 of the present series of Reports, and to an unpublished Supplementary Table of the average Rainfall at certain places where gauges have been registered for at least five years.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. JANUARY.

		1889.	Average.
		In.	In.
Morant Point L. H.	St. Thomas	4.10	5.28
Quaw Hill	...	5.35	...
Hordley	...	5.40	5.94
Elmwood (Long Bay)	Portland	10.41	...
Boston	...	11.86	...
Port Antonio	...	14.19	...
Cinchona Plantation,	St. Andrew	6.70	10.60
New Haven Gap	...	...	...
Newton	...	3.25	...
Stony Hill Reformatory	...	2.19	4.82
Castleton Gardens	St. Mary	5.72	9.71
Dover	...	17.69	...
Quebec	...	...	...
Richmond	...	5.19	...
Port Maria	...	9.82	...
New Ramble	...	...	...
Gayle	...	10.35	9.50
Goshen	...	...	...
Bio Hoe	St. Ann	7.49	7.42
Unity Valley	...	7.78	7.63
Moneague	...	6.33	...
Albion	...	7.03	6.15
Averham Park	...	3.43	...
Bradfield	...	6.83	8.24
Drax Hall	...	7.80	7.30
Seville	...	11.78	7.16
Llandoverly	...	9.62	5.68
Richmond Estate	...	9.93	5.72
Southfield	...	18.47	...
Means		7.34	7.22

NORTHERN DIVISION.		JANUARY.	
		1889. | Average.	
		In.	In.
Lillyfield	St. Ann	...	10.60
Home Castle	...	4.27	...
Richmond Pen	...	4.55	...
Colchis Pen	Trelawny	1.61	...
Mahogany Hall	...	2.19	...
Braco	...	5.93	5.01
Arcadia	...	4.84	...
Harmony Hall	...	...	4.32
Lancaster	...	5.25	5.12
Vale Royal	...	5.49	5.39
Hyde	...	3.86	6.95
Georgia	...	...	5.02
Steelfield	...	5.29	5.03
Oxford	...	3.90	...
Cambridge	...	3.41	5.23
Dry Valley	...	4.32	...
Lottery	...	3.33	4.18
Falmouth	...	6.41	...
Holland Pen	...	4.76	...
Golden Grove	...	4.95	4.43
Pembroke	...	...	3.82
Green Park	...	...	...
Phoenix	...	4.62	...
Tilston	...	4.85	5.52
Orange Valley	...	6.05	4.79
Kent	...	5.01	4.93
Dundee	...	5.66	5.31
Weston Favel	...	3.75	...
Gale's Valley	...	4.30	4.47
Greenwood	St. James	7.95	...
Bellfield	...	5.92	...
Gullsbro'	...	3.96	...
Spring Vale	...	...	...
Cinnamon Hall	...	...	...
Rose Hall	...	...	...
Running Gut	...	...	3.78
Leogan	...	6.20	...
Ironshore	...	2.91	2.76
Providence	St. James	2.74	...
Montego Bay (Market)	...	...	...
Catherine Hall	St. James	4.61	4.43
Catherine Mount	...	3.91	4.23
Fairfield	...	3.95	...
Means		4.68	4.82

WEST CENTRAL DIVISION. JANUARY.

		1889. | Average.	
		In.	In.
Linstead	St. Catherine	6.26	2.14
Cave Valley	St. Ann	3.50	2.95
Mandeville	Manchester	...	...
Derry	...	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	3.03	2.98
Windsor Pen	Trelawny	2.56	...
Maroon Town	St. James	4.25	...
Kepp	St. Elizabeth	1.67	...
Mount Edgcombe	Westmoreland	0.85	2.15
Windsor Forest	...	...	...
Woodstock	...	1.04	...
Strnie	...	1.20	...
Kew Park	...	...	...
Hermitage	...	...	...
Chester Castle	Hanover	2.50	...
Copse	...	0.75	3.99
Haughton Grove	...	...	...

WEST CENTRAL DIVISION, contd.		JANUARY.	
		1889. | Average.	
		In.	In.
Kempshot	St. James	...	...
Anchovy	...	1.98	2.90
Wiltshire	...	2.77	3.75
Eden	...	3.27	...
Round Hill	Hanover	2.89	2.31
Cacoon Castle	...	3.55	4.87
Golden Grove	...	2.50	3.57
Great Valley Pen	...	3.38	...
Flint River	...	6.30	...
Tryall	...	6.11	2.13
Sweet River	Westmoreland	...	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	0.82	1.89
Kew	Hanover	4.23	...
Fontabelle	Westmoreland	1.38	...
Belle Isle	...	2.05	...
King's Valley	...	...	...
Haughton Court	Hanover	...	...
Orange Cove	...	2.73	3.96
Abingdon	...	2.70	...
Means		2.89	3.00

SOUTHERN DIVISION. JANUARY.

		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	1.77	...
The Abbey	...	4.40	...
Halberstadt	St. Andrew	4.90	...
Middleton	...	...	...
Woodford	...	4.05	...
Hope Plantation	...	3.49	2.90
Hope Reservoirs	...	...	...
Cherry Garden	...	4.39	...
Constant Spring	...	3.81	...
Spoutwood	...	4.27	...
King's House	...	2.63	1.72
Monahrie	...	2.53	1.56
Public Works Office	Kingston	1.36	1.78
Franklyn Town	...	...	...
Elletson Road	...	1.70	...
Plumb Point L. H.	...	1.13	1.16
Spanish Town	St. Catherine	2.17	1.77
Windsor Park	...	...	...
Hog Hole Pen	...	2.95	2.02
Headworks, R. C. G.	...	...	2.80
Old Harbour	...	2.83	...
Springfield	Clarendon	...	...
Farm Plantation	Manchester	4.70	2.65
Stone's Hope	...	...	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	1.47
Long Hill	...	4.17	2.00
Potsdam	...	1.86	...
Gilnock Hall	...	1.50	...
Santa Cruz (Poor House)	...	...	...
Black River	...	...	1.76
Bloomsbury	...	...	...
Means		2.73	1.95

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 1.05 and 1.13 inches.

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

	JANUARY.	
	1889.	Average.
North Eastern Division	In. 7.84	In. 7.22
Northern "	4.68	4.82
West Central "	2.89	3.09
Southern "	2.76	1.95
The Island	4.42	4.25

The largest fall, namely, 18.47 inches was recorded at Southfield in St. Ann; the smallest, 0.65 inches, was recorded at Mount Edgecombe in Westmorland.

The rainfall for the Month was therefore as nearly as possible the average in every division of the Island.

ROBT. JOHNSTONE.

Kingston, 30th March, 1889.



JAMAICA.

APRIL 29, 1889.

No. 103.

WEATHER REPORT

FOR THE MONTH OF

FEBRUARY, 1889.

Published by Authority.

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

1889.

METEOROLOGICAL RESULTS FOR FEBRUARY, 1889.

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	30.058	29.991	70.1	85.2	64.7	71.5	0.611	0.772	83	64
King's House	400	29.77	29.72	69.3	85.2	64.1	73.9	0.598	0.987	84	82
Castleton Gardens	580	29.64	29.63	65.5	80.4	64.1	68.5	0.598	0.697	95	67
Cinchona Plantation	4,907	...	...	...	...	...	...	...	...	...	...

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	67.1	22.0	S. E.	69.3	92.2	9	62.6	8	29.6	0.45
King's House	...	62.7	...	...	...	...	...	59	2	...	1.00
Castleton Gardens	83.5	64.4	19.1	...	...	87	22	59	9*	28	6.93
Cinchona Plantation	...	...	...	...	...	...	...	...	...	...	..

*And 2 other days.

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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th	2.30 p.m.	60	50	65	60.00	Fine and bright at West, cloudy to S., thick fog to N.	H.C.M.
February 17th	7.45 a.m.	80	45	53	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd	10.0 a.m.	70	43	59	12.30	Bright sun clear on South, cloudy to North and East.	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:—

	FEBRUARY.	
	1889.	Average.
Infantile diseases not otherwise specified	26	27
Lung diseases	12	14
Fever	10	7
Dysentery and Diarrhoea	16	8
Various	44	52
Total	107	108

RAINFALL FOR FEBRUARY, 1889.

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 Rain-

fall 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.		FEBRUARY.	
		1889.	Average.
Morant Point L. H.	St. Thomas	In. 0.76	In. 2.98
Quaw Hill	...	...	...
Herdley	...	1.37	4.40
Elmwood (Long Bay)	Portland	...	...
Boston	...	...	...
Port Antonio	...	3.27	...

NORTH-EASTERN DIVISION, *contd.* FEBRUARY.

		1889. | Average.	
		In.	In.
Cinchona Plantation,	St. Andrew	...	2.56
New Haven Gap	...	...	...
Newton	...	0.75	...
Stony Hill Reformatory	...	0.46	2.65
Castleton Gardens	St. Mary	6.93	2.09
Dover	...	3.00	...
Quebec	...	...	...
Richmond	...	0.60	...
Port Maria	...	0.82	...
New Ramble	...	...	4.25
Gayle	...	1.03	6.31
Goshen	...	...	...
Rio Hoe	St. Ann	3.32	3.69
Unity Valley	...	2.21	2.84
Moneague	...	...	...
Albion	...	1.41	3.30
Averham Park	...	1.85	...
Bradfield	...	1.26	...
Drax Hall	...	0.15	4.52
Seville	...	0.40	4.16
Llandoverly	...	1.38	3.32
Richmond Estate	...	0.45	3.65
Southfield	...	0.64	...
Means		1.65	3.62

NORTHERN DIVISION. FEBRUARY.

		1889. | Average.	
		In.	In.
Lillyfield	St. Ann	...	6.74
Home Castle	...	0.65	...
Richmond Pen	...	1.30	...
Oolchis Pen	Trelawny	1.01	...
Mahogany Hall	...	...	1.74
Braco	...	0.00	2.21
Arcadia	...	0.25	...
Harmony Hall	...	...	...
Lancaster	...	0.00	2.32
Vale Royal	...	0.25	2.73
Hyde	...	1.21	2.28
Georgia	...	...	2.53
Steelfield	...	0.35	1.77
Oxford	...	0.30	...
Cambridge	...	0.61	2.69
Dry Valley	...	0.15	...
Lottery	...	0.24	2.02
Falmouth	...	0.30	...
Holland Pen	...	3.00	...
Golden Grove	...	0.90	3.07
Pembroke	...	...	1.42
Green Park	...	...	1.58
Phoenix	...	1.25	...
Tilston	...	0.55	1.40
Orange Valley	...	0.00	2.57
Kent	...	0.00	2.68
Dundee	...	0.00	2.57
Weston Favel	...	1.00	...
Gale's Valley	...	1.10	1.97
Greenwood	St. James	0.00	...
Bellfield	...	0.00	...
Guilsbro'	...	1.00	...
Spring Vale	...	...	2.04
Cinnamon Hall	...	...	...
Rose Hall	...	...	...
Ranning Gut	...	...	...
Leogan	...	...	...
Ironshore	...	0.16	2.86
Providence	St. James	0.27	...

NORTHERN DIVISION, *contd.* FEBRUARY.

		1889. | Average.	
		In.	In.
Montego Bay. (Market)	...	0.90	...
Catherine Hall	St. James	0.70	1.92
Catherine Mount	...	0.57	1.63
Fairfield	...	0.35	...
Means		0.42	2.29

WEST CENTRAL DIVISION. FEBRUARY.

		1889. | Average.	
		In.	In.
Linstead	St. Catherine	0.75	2.54
Cave Valley	St. Ann	1.04	2.66
Mandeville	Manchester	...	...
Derry	...	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	2.91	4.12
Windsor Pen	Trelawny	0.75	...
Maroon Town	St. James	0.81	...
Kepp	St. Elizabeth	1.44	6.56
Mount Edgecombe	Westmoreland	0.88	3.65
Windsor Forest	...	...	...
Woodstock	...	0.63	...
Struie	...	0.45	...
Kew Park	...	...	...
Hermitage	...	...	...
Chester Castle	Hanover	0.36	...
Copse	...	0.10	1.88
Houghton Grove	...	...	...
Kempshot	St. James	...	...
Anchovy	...	0.44	1.11
Wiltshire	...	0.33	2.60
Eden	...	0.44	...
Round Hill	Hanover	0.00	1.25
Cacon Castle	...	0.54	1.64
Golden Grove	...	...	...
Great Valley Pen	...	1.25	...
Flint River	...	0.15	...
Tryall	...	0.20	1.23
Sweet River	Westmoreland	...	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	1.57	2.59
Kew	Hanover	0.48	...
Fontabelle	Westmoreland	...	...
Belle Isle	...	0.60	...
King's Valley	...	...	...
Houghton Court	Hanover	...	...
Orange Cove	...	0.52	2.49
Abingdon	...	0.30	...
Means		0.82	2.59

SOUTHERN DIVISION. FEBRUARY.

		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	0.10	...
The Abbey	...	0.15	...
Halberstadt	St. Andrew	0.25	...
Middleton	...	...	...
Woodford	...	0.42	...
Hope Plantation	...	0.46	...
Hope Reservoirs	...	...	1.13
Cherry Garden	...	...	...
Constant Spring	...	0.16	...
Shortwood	...	...	...
King's House	...	1.00	...
Monaltrie	...	1.03	1.21
Public Works Office, Kingston	...	0.08	1.02

SOUTHERN DIVISION, *contd.*

FEBRUARY.

		1889 | Average.	
		In.	In.
Franklyn Town	...	...	...
Elletson Road	...	0.45	...
Plumb Point L. H.	...	0.17	1.04
Spanish Town	St. Catherine	0.30	2.07
Windsor Park	...	0.20	...
Hog-Hole Pen	...	0.15	2.38
Headworks, R. C. C.	...	0.00	2.11
Old Harbour	...	0.93	...
Springfield	Clarendon	...	...
Farm Plantation	Manchester	0.66	2.61
Stone's Hope	...	...	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	1.58
Long Hill	...	0.84	1.46
Potsdam	...	0.49	...
Gilnock Hall	...	...	...
Santa Cruz (Poor House)	...	0.00	...
Black River	...	...	1.85
Bloomsbury	...	...	...
Means		0.40	1.74

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 0.11 and 0.17 inches.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

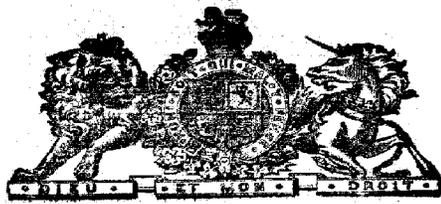
		FEBRUARY.	
		1889. | Average.	
		In.	In.
North Eastern Division		1.65	3.62
Northern	"	0.42	2.29
West Central	"	0.82	2.59
Southern	"	0.40	1.74
The Island		0.82	2.56

The largest fall, namely, 3.32 inches, was recorded at Rio Hoe in St Ann, and no rain fell at Brace, Lancaster, Holland Pen, Orange Valley, Kent, and Dundee, in Trelawny, Greenwood and Bellfield in St. James, Round Hill, in Hanover, Belle Isle, in Westmoreland, Head Works Rio Cobre Canal, in St. Catherine, and Santa Cruz Poor House, in St. Elizabeth.

The rainfall generally was deficient, only about one third of the average quantity having fallen in each division of the Island.

ROBT. JOHNSTONE.

Kingston P. O., 9th April, 1889.



JAMAICA.

MAY 6, 1889.

No. 104.

WEATHER REPORT

FOR THE MONTH OF

MARCH, 1889.

Published by Authority.

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

1889.

METEOROLOGICAL RESULTS FOR MARCH, 1889.

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	29.986	29.921	72.7	85.4	67.6	71.0	0.675	0.759	84	62
King's House	400	29.70	29.66	70.8	83.6	65.5	79.3	0.628	1.000	83	87
Castleton Gardens	580	29.59	29.55	66.6	79.7	65.3	68.6	0.624	0.699	96	69
Cinchona Plantation	4,907	25.258	25.233	60.5	65.6	56.4	63.3	0.456	0.582	86	92

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	68.7	19.9	S. E.	78.3*	92.5	29	60.0	2	32.5	inch. 5.43
King's House	79.0	63.4	15.6	...	...	85	15	58	2†	27	5.75
Castleton Gardens	83.4	66.2	17.2	...	...	87	13	60	6†	27	8.58
Cinchona Plantation	70.2	55.6	14.6	S. E.	42.8	74	8	47	22	27	8.88

†And 22.

*Average.

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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th	2.30 p.m.	60	50	65	66.00	Fine and bright at West, cloudy to S., thick fog to N.	H.C.M.
February 17th	7.45 a.m.	80	45	53	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd	10.0 a.m.	70	43	59	23.01	Bright sun clear on South, cloudy to North and East.	B. S. G.
" 18th	8. a.m.	77	49	54	5.50	Clear all round.	W. F.
" 30th	2.30 p.m.	72	40	54.5	2.25	Wet and windy from N.E.	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:—

	MARCH.	
	1889.	Average.
Infantile diseases not otherwise specified	12	37
Lung diseases	14	15
Fever	7	5
Dysentery and Diarrhoea	32	12
Various	42	74
Total	107	143

RAINFALL FOR MARCH, 1889.

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.		MARCH.	
		1889.	Average.
Morant Point L. H.	St. Thomas	In. 4.59	In. 2.14
Quaw Hill	...	7.45	...
Hordley	...	9.19	3.78
Elmwood (Long Bay)	Portland	...	...
Boston	...	...	...
Port Antonio	...	4.48	...
Cinchona Plantation,	St. Andrew	8.88	8.83

NORTH-EASTERN DIVISION, contd.

		MARCH.	
		1889. | Average.	
		In.	In.
New Haven Gap	...	...	...
Newton	...	4.25	...
Stony Hill Reformatory	...	5.70	4.14
Castleton Gardens	St. Mary	8.58	4.73
Dover	...	6.70	...
Quebec	...	6.64	...
Richmond	...	2.86	...
Port Maria	...	5.60	...
New Ramble	...	...	6.55
Gayle	...	6.00*	5.37
Goshen	...	...	...
Bio Hoe	St. Ann	5.47	5.46
Unity Valley	...	4.96	4.97
Moneague	...	3.67	...
Albion	...	4.38	4.18
Averham Park	...	4.11	...
Bradfield	...	4.30	5.58
Drax Hall	...	2.19	4.04
Seville	...	4.22	4.82
Llandoverly	...	8.25	2.05
Richmond Estate	...	5.03	2.58
Southfield	...	...	...
Means		5.84	4.48

NORTHERN DIVISION.

		MARCH.	
		1889. | Average.	
		In.	In.
Lillyfield	St. Ann	...	7.91
Home Castle	...	4.91	...
Richmond Pen	...	1.60	...
Colchis Pen	Trelawny	0.82	...
Mahogany Hall	...	2.23	1.68
Braco	...	2.09	2.19
Aroadia	...	3.20	...
Harmony Hall	...	...	1.96
Lancaster	...	2.80	2.66
Vale Royal	...	2.80	2.65
Hyde	...	1.50	4.17
Georgia	...	...	2.42
Steelfield	...	2.15	2.52
Oxford	...	3.10	...
Cambridge	...	2.80	2.67
Dry Valley	...	2.90	...
Lottery	...	2.41	2.30
Falmouth	...	1.80	...
Holland Pen	...	1.87	...
Golden Grove	...	1.10	5.43
Pembroke	...	...	...
Green Park	...	...	...
Phoenix	...	2.54	...
Tilston	...	2.10	4.59
Orange Valley	...	1.39	2.28
Kent	...	1.69	1.93
Dundee	...	1.84	3.22
Weston Favel	...	2.31	...
Gale's Valley	...	2.10	2.35
Greenwood	St. James	1.76	...
Bellfield	...	3.12	...
Gullsbro'	...	2.65	...
Spring Vale	...	...	...
Cinnamon Hall	...	...	...
Rose Hall	...	...	...
Running Gut	...	...	...
Leogan	...	1.85	...
Ironshore	...	2.03	...
Providence	St. James	...	1.39
Montego Bay (Market)	...	3.25	...

* Five and a half inches on the 13th and the remainder on the 31st.

NORTHERN DIVISION, contd.

		MARCH.	
		1889. | Average.	
		In.	In.
Catherine Hall	St. James	2.45	2.03
Catherine Mount	...	1.93	1.77
Fairfield	...	2.14	...
Means		2.09	2.76

WEST CENTRAL DIVISION.

		MARCH.	
		1889. | Average.	
		In.	In.
Lunstead	St. Catherine	5.02	1.87
Cave Valley	St. Ann	3.74	4.61
Mandeville	Manchester	...	...
Derry	...	4.66	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	5.64	5.10
Windsor Pen	Trelawny	1.29	...
Maroon Town	St. James	2.17	...
Kepp	St. Elizabeth	5.95	2.34
Mount Edgecombe	Westmoreland	3.99	2.70
Windsor Forest	...	...	...
Woodstock	...	3.55	...
Struie	...	3.90	...
Kew Park	...	...	...
Hermitage	...	...	...
Chester Castle	Hanover	3.28	...
Copse	...	...	2.74
Haughton Grove	...	...	...
Keppshot	St. James	...	...
Auchovy	...	2.16	2.14
Wiltshire	...	1.74	3.26
Elden	...	2.03	...
Round Hill	Hanover	1.70	2.38
Cacoon Castle	...	3.03	2.76
Golden Grove	...	2.49	3.42
Great Valley Pen	...	3.26	...
Flint River	...	2.38	...
Dryall	...	2.06	0.99
Sweet River	Westmoreland	3.95	...
Mackfield	...	...	...
Windsor (Sav-la-Mar)	...	4.68	2.89
Kew	Hanover	3.29	...
Fontabelle	Westmoreland	...	...
Belle Isle	...	3.60	...
King's Valley	...	4.80	...
Haughton Court	Hanover	...	...
Orange Cove	...	1.20	2.64
Abingdon	...	3.15	...
Means		3.32	2.85

SOUTHERN DIVISION.

		MARCH.	
		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	5.13	...
The Abbey	...	8.25	...
Halberstadt	St. Andrew	5.50	...
Middleton	...	...	...
Woodford	...	...	...
Hope Plantation	...	7.15	...
Hope Reservoirs	...	...	...
Cherry Garden	...	6.85	...
Constant Spring	...	5.51	...
Spoutwood	...	...	...
King's House	...	5.75	1.61
Monaltrie	...	5.77	1.60
Public Works Office,	Kingston	5.05	1.47
Franklyn Town	...	...	...

SOUTHERN DIVISION contd.

MARCH.

		1889 | Average.	
		In.	In.
Elletson Road	...	5.43	...
Plumb Point L. H.	...	6.13	0.94
Spanish Town	St. Catherine	5.66	3.15
Windsor Park	...	5.42	...
Hog Hole Pen	...	6.41	3.35
Headworks, R. C. C.	...	6.91	4.37
Old Harbour	...	3.37	...
Springfield	Clarendon	...	...
Farm Plantation	Manchester	9.26	3.15
Stone's Hope	...	8.13	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	4.41
Long Hill	...	6.16	2.66
Potsdam	...	4.40	...
Gilnock Hall	...	...	...
Santa Cruz (Poor House)	...	5.87	...
Black River	...	5.41	2.44
Bloomsbury	...	...	...
	Means	6.25	2.47

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 4.94 and 6.13 inches.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

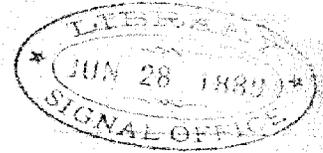
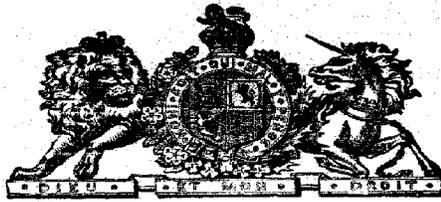
		MARCH.	
		1889. | Average	
		In.	In.
North Eastern Division		5.84	4.48
Northern	"	2.09	2.76
West Central	"	3.32	2.85
Southern	"	6.25	2.47
	The Island	4.38	3.14

The largest fall, namely, 9.26 inches, was recorded at Farm Plantation in Manchester; the smallest, 0.82 inches, was recorded at Colchis Pen, Trelawny.

Mr. M. L. Moss reports that a rather severe shock of earthquake was felt at Southfield, in St. Ann, on the 6th at 7.7 p.m., and the Superintendent of the Morant Point Lighthouse, reports that a shock of earthquake which lasted ten seconds, was felt there at a quarter to one on the morning of the 27th March.

ROBT. JOHNSTON.

Kingston 29th April, 1889.



JAMAICA.

JUNE 11, 1889.

No. 105.

WEATHER REPORT

FOR THE MONTH OF

A P R I L, 1 8 8 9.

Published by Authority.

J A M A I C A :
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET, KINGSTON.
1889.

2
METEOROLOGICAL RESULTS FOR APRIL, 1889.

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	29.982	29.917	77.3	85.9	70.0	72.8	0.733	0.807	77	65
King's House	400	29.70	29.65	74.3	84.0	69.5	79.6	0.720	0.990	86	86
Castleton Gardens	580	29.60	29.54	70.3	80.6	68.9	71.2	0.708	0.759	96	74
Cinchona Plantation	4,907	25.247	25.236	62.0	64.5	57.6	63.0	0.473	0.576	85	96

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	89.0	72.9	16.1	S. E.	82.4	92.9	28	69.6	23	23.3	0.91
King's House	82.9	67.0	15.9	...	...	87	21	64	1*	23.0	1.97
Castleton Gardens	84.9	69.6	15.3	...	...	88	21	63	5	25	11.37
Cinchona Plantation	69.2	57.2	12.0	S. E.	25.8	73	3	51.5	14	21.5	4.57

* And numerous other days.

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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th	2.30 p.m.	60	50	65	60.00	Fine and bright at West, cloudy to S., thick fog to N.	H. C. M.
February 17th	7.45 a.m.	80	45	53	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd	10.0 a.m.	70	43	59	23.01	Bright sun clear on South, cloudy to North and East.	B. S. G.
" 18th	8. a.m.	77	49	54	5.50	Clear all round.	W. F.
" 30th	2.30 p.m.	72	40	54.5	2.25	Wet and windy from N.E.	B. S. G.
May 4th	10.30 a.m.	73	51	63	9.00	Fine but windy.	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:—

	APRIL.	
	1889.	Average.
Infantile diseases not otherwise specified	22	29
Lung diseases	17	15
Fever	11	3
Dysentery and Diarrhoea	28	9
Various	51	52
Total	129	108

RAINFALL FOR APRIL, 1889.

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.		APRIL.	
		1889.	Average.
		In.	In.
Mount Point L. H.	St. Thomas	5.78	3.90
Guava Hill	...	...	...
Hordley	...	6.51	3.38
Elmwood (Long Bay)	Portland	...	...
Boston	...	...	...
Port Antonio	...	22.61	...
Cinchona Plantation,	St. Andrew	4.57	9.24

NORTH-EASTERN DIVISION, contd.

		APRIL.	
		1889. | Average.	
		In.	In.
New Haven Gap	...	...	...
Newton	...	6.50	...
Stony Hill Reformatory	...	7.14	5.76
Castleton Gardens	St. Mary	11.37	6.14
Dover	...	17.00	...
Quebec	...	9.05	...
Richmond	...	10.82	...
Port Maria	...	6.01	...
New Ramble	...	...	3.04
Gayle*	...	15.00	2.87
Goshen	...	...	...
Rio Hoe	St. Ann	9.56	3.82
Unity Valley	...	8.85	5.22
Monague	...	7.25	...
Albion	...	7.62	4.19
Averham Park	...	8.44	...
Bradfield	...	8.37	4.11
Drax Hall	...	9.50	2.43
Seville	...	...	...
Llandoverly	...	...	...
Richmond Estate	...	7.92	...
Southfield	...	15.32	...
Means		8.57	4.65

NORTHERN DIVISION.

		APRIL.	
		1889. | Average.	
		In.	In.
Lillyfield	St. Ann	...	4.35
Home Castle	...	3.63	...
Richmond Pen	...	6.20	...
Colchis Pen	Trelawny	4.40	...
Mahogany Hall	...	4.90	2.43
Braco	...	4.64	2.38
Arcadia	...	5.40	...
Harmony Hall	...	...	...
Lancaster	...	5.79	2.14
Vale Royal	...	6.41	2.80
Hyde	...	6.05	2.73
Georgia	...	...	2.19
Steelfield	...	4.70	2.35
Oxford	...	3.35	...
Cambridge	...	5.78	2.11
Dry Valley	...	4.51	...
Lottory	...	5.32	2.06
Falmouth	...	...	1.08
Holland Pen	...	5.38	...
Golden Grove	...	6.25	2.13
Pembroke	...	...	2.77
Green Park	...	...	...
Phoenix	...	4.72	...
Tilston	...	4.35	2.39
Orange Valley	...	1.82	2.20
Kent	...	1.54	2.05
Dundee	...	3.64	2.50
Weston Favel	...	7.12	...
Gale's Valley	...	6.75	2.06
Greenwood	St. James	3.46	...
Bellfield	...	...	...
Guilabro'	...	7.20	...
Spring Vale	...	...	...
Cinnamon Hall	...	...	...
Rose Hall	...	...	...
Bunning Gut	...	...	...
Leogan	...	4.40	...
Ironshore	...	3.52	2.02
Providence	...	...	...
Montago Bay (Market)	...	4.85	...

* 6.50 inches in less than 3 hours on 19th.

NORTHERN DIVISION, contd.

		APRIL.	
		1889. | Average.	
		In.	In.
Catherine Hall	St. James	6.80	2.04
Catherine Mount	...	6.26	2.99
Fairfield	...	6.96	...
Means		4.97	2.32

WEST CENTRAL DIVISION.

		APRIL.	
		1889. | Average.	
		In.	In.
Linstead	St. Catherine	8.01	3.67
Cave Valley	St. Ann	6.56	4.55
Mandeville	Manchester	...	...
Derry	...	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	5.15	9.93
Windsor Pen	Trelawny	9.19	...
Maroon Town	St. James	9.61	...
Kepp	St. Elizabeth	5.63	9.65
Mount Edgecombe	Westmoreland	1.44	5.08
Windsor Forest	...	...	...
Woodstock	...	8.32	...
Struie	...	6.95	...
Kew Park	...	...	...
Hermitage	...	...	...
Chester Castle	Hanover	10.06	...
Copse	...	4.35	7.13
Haughton Grove	...	...	...
Kempshot	St. James	...	...
Anchovy	...	2.70	3.03
Wiltshire	...	4.13	3.68
Eden	...	5.21	...
Round Hill	Hanover	4.70	1.53
Cocoon Castle	...	11.34	...
Golden Grove	...	12.89	7.93
Great Valley Pen	...	14.48	...
Flint River	...	6.65	...
Tryall	...	6.82	2.20
Sweet River	Westmoreland	3.24	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	1.34	5.11
Kew	Hanover	...	...
Fontabelle	Westmoreland	...	...
Belle Isle	...	...	...
King's Valley	...	3.44	...
Haughton Court	Hanover	...	...
Orange Cove	...	11.91	3.31
Abingdon	...	7.46	...
Means		5.82	5.14

SOUTHERN DIVISION.

		APRIL.	
		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	1.65	...
The Abbey	...	5.70	...
Halberstadt	St. Andrew	3.28	...
Middleton	...	...	...
Woodford	...	...	...
Hope Plantation	...	2.00	...
Hope Reservoirs	...	...	...
Cherry Garden	...	1.00	...
Constant Spring	...	2.61	...
Shortwood	...	...	...
King's House	...	1.97	3.05
Monaltrie	...	0.82	1.48
Public Works Office, Kingston	...	0.94	1.19
Franklyn Town	...	...	...

SOUTHERN DIVISION contd.

		APRIL.	
		1889	Average.
		In.	In.
Elletson Road	...	0.91	...
Plumb Point L. H.	...	1.24	1.13
Spanish Town	St. Catherine	1.94	1.90
Windsor Park	...	1.57	...
Hog Hole Pen	...	6.27	2.14
Headworks, R. C. C.	...	5.89	2.00
Old Harbour	...	4.33	...
Springfield	Clarendon	9.00	...
Farm Pen	Manchester	6.63	2.82
Stone's Hope	...	6.61	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	6.45
Long Hill	...	5.90	8.93
Potsdam	...	6.94	...
Gilnock Hall	...	...	...
Santa Cruz	...	6.27	...
Black River	...	5.42	3.10
Bloomsbury	...	...	...
	Means	3.70	2.77

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 1.09 and 1.24 inches.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

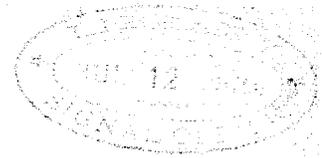
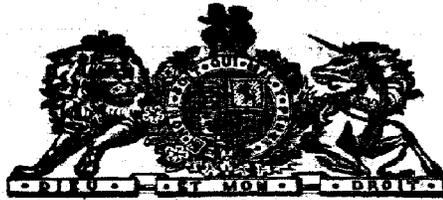
		APRIL.	
		1889.	Average.
		In.	In.
North Eastern Division		8.57	4.65
Northern	"	4.97	2.32
West Central	"	5.82	5.14
Southern	"	3.70	2.77
	The Island	5.76	3.72

The largest fall, namely, 22.61 inches, was recorded at Port Antonio; the smallest, 0.82 inches, was recorded at Monaltrie, in St. Andrew.

The rainfall for April was over the average in each Division, and the fall for the whole Island was one and a half times the average.

ROBT. JOHNSTONE.

Kingston 5th June, 1889.



JAMAICA.

JUNE 26, 1889.

No. 106.

WEATHER REPORT

FOR THE MONTH OF

M A Y, 1 8 8 9.

Published by Authority.

J A M A I C A :
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET, KINGSTON.

1889.

METEOROLOGICAL RESULTS FOR MAY, 1889.

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	29.969	29.922	79.2	86.5	71.3	73.4	0.766	0.823	77	65
King's House ...	400	29.69	29.65	76.2	83.0	71.0	78.3	0.759	0.958	85	85
Castleton Gardens ...	580	29.59	29.54	72.2	80.3	70.1	78.3	0.736	0.968	93	94
Cinchona Plantation ...	4,907	25.216	25.232	83.9	65.0	61.2	64.0	0.537	0.596	90	96

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 ...	90.4	74.6	15.8	S. E.	47.3	93.8	11	71.4	7	22.4	1.47
King's House ...	84.7	69.5	15.2	...	...	86	2*	67	5†	20	2.09
Castleton Gardens ...	84.3	71.1	13.2	...	...	87	4†	67	20	21	17.10
Cinchona Plantation ...	69.8	61.8	8.0	S. E.	34.9	73	21	54	3‡	19	5.56

* And 9 other days.

† And 7 and 23.

‡ And 3 other days.

§ And 29.

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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th ...	2.30 p.m.	60	50	65	60.00	Fine and bright at West, cloudy to S., thick fog to N.	H.C.M.
February 17th ...	7.45 a.m.	80	45	63	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd ...	10.0 a.m.	70	43	59	23.01	Bright sun clear on South, cloudy to North and East.	B. S. G.
" 18th ...	8. a.m.	77	49	54	5.50	Clear all round.	W. F.
" 30th ...	2.30 p.m.	72	40	54.5	2.25	Wet and windy from N.E.	B. S. G.
May 4th ...	10.30 a.m.	73	51	63	9.00	Fine but windy.	B. S. G.
June 1st ...	10.30 a.m.	68.5	56	57	11.43	Clear to North, cloudy on South.	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:—

	MAY.	
	1889.	Average.
Infantile diseases not otherwise specified ...	12	24
Lung diseases ...	18	14
Fever ...	15	4
Dysentery and Diarrhoea ...	36	5
Various ...	59	58
Total	140	105

RAINFALL FOR MAY, 1889.

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, 1888, 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. MAY.

		1889. | Average.	
		In.	In.
Morant Point L. H.	St. Thomas	13.27	9.26
Quaw Hill	...	...	...
Hordley	...	9.92	11.85
Elmwood (Long Bay)	Portland	...	...
Boston	...	...	...
Port Antonio	...	19.89	...
Cinchona Plantation,	St. Andrew	5.56	9.72
New Haven Gap	...	...	...
Newton	...	4.61	...
Stony Hill Reformatory	...	7.16	9.39
Castleton Gardens	St. Mary	17.10	12.28
Dover	...	21.20	...
Quebec	...	...	...
Richmond	...	...	...
Port Maria	...	...	...
New Ramble	...	...	8.81
Gayle	...	3.70	8.78
Gosben	...	...	...
Bio Hoe	St. Ann	8.13	11.56
Unity Valley	...	9.39	11.15
Moneague	...	...	...
Albion	...	6.61	8.62
Averham Park	...	8.83	...
Bradfield	...	5.35	9.50
Drax Hall	...	5.49	7.74
Seville	...	7.85	6.80
Llandovary	...	9.66	6.17
Richmond Estate	...	7.42	...
Southfield	...	17.98	...
Means		8.40	9.45

NORTHERN DIVISION. MAY.

		1889. | Average.	
		In.	In.
Lillysfield	St. Ann	...	7.91
Home Castle	...	6.95	...
Richmond Pen	...	3.45	...
Colchis Pen	Trelawny	8.20	...
Mahogany Hall	...	9.36	8.50
Braco	...	6.02	6.74
Arcadia	...	4.06	...
Harmony Hall	...	...	6.86
Lancaster	...	5.35	...
Vale Royal	...	3.14	8.09
Hyde	...	5.49	10.86
Georgia	...	...	7.99
Steelfield	...	5.13	7.55
Oxford	...	5.85	...
Cambridge	...	5.49	7.66
Dry Valley	...	4.25	...
Lottery	...	4.95	8.15
Falmouth	...	4.00	6.51
Holland Pen	...	8.60	...
Golden Grove	...	8.00	8.37
Pembroke	...	...	7.25
Green Park	...	5.00	8.30
Phoenix	...	...	...
Tilston	...	7.55	8.94
Orange Valley	...	6.29	6.70
Kent	...	6.83	6.21
Dundee	...	9.41	6.05
Weston Favel	...	7.40	...
Gale's Valley	...	8.75	8.16
Greenwood	St. James	3.06	...
Bellfield	...	6.00	...
Guildbro'	...	7.20	...
Spring Vale	...	...	12.02
Cinnamon Hall	...	...	...

NORTHERN DIVISION, contd. MAY.

		1889. | Average.	
		In.	In.
Rose Hall	...	...	...
Running Gut	...	...	...
Leogan	...	3.74	...
Ironshore	...	7.17	4.94
Providence	...	...	...
Montego Bay (Market)	...	8.42	...
Catherine Hall	St. James	9.55	7.53
Catherine Mount	...	8.61	8.43
Fairfield	...	10.69	...
Means		6.81	7.62

WEST CENTRAL DIVISION. MAY.

		1889. | Average.	
		In.	In.
Linstead	St. Catherine	...	7.29
Cave Valley	St. Ann	8.20	11.93
Mandeville	Manchester	...	...
Derry	...	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	6.94	...
Windsor Pen	Trelawny	15.18	...
Maroon Town	St. James	11.31	...
Kepp	St. Elizabeth	7.80	14.89
Mount Edgecombe	Westmoreland	3.13	7.48
Windsor Forest	...	...	...
Woodstock	...	...	...
Struie	...	...	...
Kew Park	...	...	...
Hermitage	...	...	...
Chester Castle	Hanover	8.61	...
Copse	...	13.15	11.91
Haughton Grove	...	...	...
Kempshot	St. James	...	...
Anchovy	...	10.20	10.84
Wiltshire	...	13.02	10.15
Eden	...	11.82	...
Round Hill	Hanover	8.35	6.87
Cacoon Castle	...	8.63	13.42
Golden Grove	...	13.05	15.98
Great Valley Pen	...	9.80	...
Flint River	...	5.51	...
Tryall	...	4.81	5.46
Sweet River	Westmoreland	...	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	7.37	11.06
Kew	Hanover	4.15	...
Three Mile River	Westmoreland	6.90	...
Georges Plain Estate	...	5.05	...
Fontabelle	...	...	...
Belle Isle	...	...	...
King's Valley	...	9.15	...
Haughton Court	Hanover	...	...
Orange Cove	...	4.30	8.49
Abingdon	...	6.53	...
Means		8.50	10.71

SOUTHERN DIVISION. MAY.

		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	...	...
The Abbey	...	4.95	...
Halberstadt	St. Andrew	7.89	...
Middleton	...	...	...
Woodford	...	...	...

SOUTHERN DIVISION contd.

MAY.

		1889	Average.
		In.	In.
Hope Plantation	...	4.54	...
Hope Reservoirs	...	...	...
Cherry Garden	...	5.95	...
Constant Spring	...	...	...
Shortwood	...	5.11	...
King's House	...	2.09	...
Monaltrie	...	2.56	4.92
Public Works Office,	Kingston	1.63	4.82
Franklyn Town	...	...	...
Elletson Road	...	1.47	...
Plumb Point L. H.	...	3.34	4.64
Spanish Town	St. Catherine	...	5.73
Windsor Park	...	...	...
Hog Hole Pen	...	...	6.89
Headworks, R. C. C.	...	...	8.81
Old Harbour	...	...	...
Springfield	Clarendon	5.18	...
Farm Plantation	Manchester	7.71	10.02
Stone's Hope	...	12.23	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	11.27
Long Hill	...	11.85	9.46
Potsdam	...	7.00	...
Gilnock Hall	...	...	...
Santa Cruz	...	7.70	...
Black River	...	3.56	6.95
Bloomsbury	...	...	...
Means		5.11	6.80

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 2.78 and 3.34 inches.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

		MAY.	
		1889.	Average
		In.	In.
North Eastern Division		8.40	9.45
Northern	"	6.81	7.62
West Central	"	8.50	10.71
Southern	"	5.11	6.80
The Island		7.20	8.64

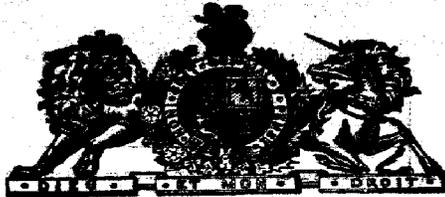
The largest fall, namely, 21.20 inches, was recorded at Dover in St. Mary; the smallest, 1.47 inches, was recorded at Elletson Road, Kingston.

The rainfall did not come up to the average in any of the Divisions of the Island, but the deficiency was not more than one sixth of the average for the whole Island. In Kingston however we had only one third of the usual fall.

Dr. Manners reports that a light shock of earthquake was felt at the Abbey at 8 p.m. on the 15th May.

ROBT. JOHNSTON.

Kingston, 20th June, 1889.



JAMAICA.

AUGUST 9, 1889.

No. 107.

WEATHER REPORT

FOR THE MONTH OF

JUNE, 1889.

Published by Authority.

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

METEOROLOGICAL RESULTS FOR JUNE, 1889.

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. 30.007	in. 29.971	° 78.4	° 85.2	° 73.0	° 75.6	in. 0.812	in. 0.885	84	78
King's House	400	29.73	29.70	76.3	83.2	72.1	79.2	0.785	0.990	87	77
Castleton Gardens	580	29.61	29.58	71.9	82.1	70.9	74.1	0.759	0.840	97	77
Cinchona Plantation	4,907	25.285	25.267	63.8	65.8	62.7	65.5	0.576	0.628	97	98

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	88.4	74.7	13.7	S. E.	111.6	94.1	7	70.9	20	23.2	12.18
King's House	84.7	69.6	15.1	...	...	89	17	65	13	25	16.36
Castleton Gardens	86.1	71.8	14.3	...	...	90	6	68	9*	23	18.15
Cinchona Plantation	67.7	59.2	8.5	S. E.	45.9	76	17	58	11†	18	24.78

* And 22.

† And 8 other days.

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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th	2.30 p.m.	60	50	65	60.00	Fine and bright at West, cloudy to S., thick fog to N.	H.C.M.
February 17th	7.45 a.m.	80	45	53	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd	10.0 a.m.	70	43	59	23.01	Bright sun clear on South, cloudy to North and East.	B. S. G.
" 18th	8. a.m.	77	49	54	5.50	Clear all round.	W. F.
" 30th	2.30 p.m.	72	40	54.5	2.25	Wet and windy from N.E.	B. S. G.
May 4th	10.30 a.m.	73	51	63	9.00	Fine but windy.	B. S. G.
June 1st	10.30 a.m.	68.5	56	57	11.43	Clear to North, cloudy on South.	B. S. G.
" 29th	11.10 a.m.	70	...	53	47.15	Wet, high wind, heavy clouds.	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.	
	1889.	Average.
Infantile diseases not otherwise specified	7	19
Lung diseases	19	14
Fever	11	7
Dysentery and Diarrhoea	16	7
Various	57	53
Total	110	100

RAINFALL FOR JUNE, 1889.

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.

		1889. | Average.	
		In.	In.
Morant Point L. H.	St. Thomas	17.47	6.24
Quaw Hill	...	...	...
Hordley*	...	36.19	7.80
Elmwood (Long Bay)	Portland	...	...
Boston	...	37.66	...
Port Antonio	...	44.09	...
Cinchona Plantation,	St. Andrew	24.78	6.33
New Haven Gap	...	...	...
Newton	...	16.47	...
Stony Hill Reformatory	...	19.84	6.01
Castleton Gardens	St. Mary	18.15	8.24
Dover	...	...	...
Quebec	...	...	...
Richmond	...	9.63	...
Port Maria	...	14.21	...
New Ramble	...	...	4.23
Gayle	...	...	5.85
Goshen	...	...	...
Rio Hoe	St. Ann	13.34	9.97
Unity Valley	...	...	8.70
Moneague	...	7.81	...
Albion	...	10.63	5.58
Averham Park	...	8.97	...
Bradfield	...	...	...
Drax Hall	...	8.73	...
Seville	...	10.18	3.78
Llandoverry	...	10.04	3.24
Richmond Estate	...	...	3.25
Southfield	...	13.52	...
Means		17.85	6.35

NORTHERN DIVISION.

JUNE.

		1889. | Average.	
		In.	In.
Lillyfield	St. Ann	...	5.38
Home Castle	...	7.08	...
Richmond Pen	...	8.14	...
Colchis Pen	Trelawny	9.28	...
Mahogany Hall	...	10.11	2.77
Braco	...	4.43	...
Arcadia	...	5.57	...
Harmony Hall	...	...	1.68
Lancaster	...	4.48	...
Vale Royal	...	7.87	...
Hyde	...	7.96	...
Georgia	...	...	...
Steelfield	...	7.05	...
Oxford	...	6.70	...
Cambridge	...	8.16	...
Dry Valley	...	6.24	...
Lottery	...	8.79	...
Falmouth	...	7.80	2.01
Holland Pen	...	7.02	...
Golden Grove	...	7.75	5.79
Pembroke	...	...	3.37
Green Park	...	8.43	2.68
Phoenix	...	10.06	...
Tilston	...	5.50	4.34
Orange Valley	...	3.83	2.80
Kent	...	4.72	2.89
Dundee	...	8.72	3.26
Weston Favel	...	11.84	...
Gale's Valley	...	8.10	5.66
Greenwood	St. James	5.81	...
Bellfield	...	...	...
Gnulsbro'	...	8.85	...
Spring Vale	...	...	9.21
Cinnamon Hall	...	...	...

*Gauge overflowed on 24th at 4 a.m.

NORTHERN DIVISION, contd.

JUNE.

		1889. | Average.	
		In.	In.
Rose Hall	...	7.44	...
Running Gut	...	8.67	2.32
Leogan	...	7.45	...
Ironshore	...	5.69	4.16
Providence	...	...	...
Montego Bay (Market)	...	5.73	...
Catherine Hall	St. James	5.75	6.05
Catherine Mount	...	6.52	6.55
Fairfield	...	5.46	...
Means		7.04	3.94

WEST CENTRAL DIVISION.

JUNE.

		1889. | Average.	
		In.	In.
Linstead	St. Catherine	11.31	6.80
Cave Valley	St. Ann	16.33	...
Mandeville	Manchester	...	...
Derry	...	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	16.02	7.20
Windsor Pen	Trelawny	13.23	...
Maroon Town	St. James	16.90	...
Kepp	St. Elizabeth	9.95	7.25
Mount Edgecombe	Westmoreland	7.57	5.61
Windsor Forest	...	9.94	...
Woodstock	...	7.33	...
Struie	...	9.15	...
Kew Park	...	...	...
Hermitage	...	...	...
Chester Castle	Hanover	7.96	...
Copae	...	7.20	8.85
Haughton Grove	...	...	...
Kempshot	St. James	...	...
Anchovy	...	10.13	7.12
Wiltshire	...	7.69	8.21
Eden	...	7.10	...
Round Hill	Hanover	2.85	6.20
Cacoon Castle	...	7.94	10.51
Golden Grove	...	13.70	10.92
Great Valley Pen	...	12.85	...
Flint River	...	7.04	...
Fryall	...	7.61	7.98
Sweet River	Westmoreland	8.74	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	9.59	6.68
Kew	Hanover	...	...
Three Mile River	Westmoreland	8.00	...
Georges Plain Estate	...	7.33	...
Fontabelle	...	...	...
Belle Isle	...	8.80	...
King's Valley	...	12.95	...
Haughton Court	Hanover	...	...
Orange Cove	...	6.58	...
Abingdon	...	14.61	...
Means		9.30	7.78

SOUTHERN DIVISION.

JUNE.

		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	16.06	...
The Abbey	...	37.75	...
Halberstadt	St. Andrew	21.00	...
Middleton	...	...	...
Woodford	...	...	...

SOUTHERN DIVISION contd.

JUNE.

		1889 | Average.	
		In.	In.
Hope Plantation	...	15.51	...
Hope Reservoirs	...	...	...
Cherry Garden	...	...	...
Constant Spring	...	...	...
Shortwood	...	14.37	...
King's House	...	16.36	3.12
Monaltrie	...	14.01	3.53
Public Works Office,	Kingston	12.03	3.32
Franklyn Town	...	...	...
Elletson Road	...	...	...
Plumb Point L. H.	...	11.91	3.79
Spanish Town	St. Catherine	8.32	3.74
Windsor Park	...	...	...
Hog Hole Pen	...	9.33	3.90
Headworks, R. O. C.	...	12.26	5.50
Old Harbour	...	12.77	...
Springfield	Clarendon	11.93	...
Farm Plantation	Manchester	22.68	6.70
Stone's Hope	...	19.14	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	2.63
Long Hill	...	9.40	2.92
Potsdam	...	8.70	...
Gilnock Hall	...	...	...
Santa Cruz	...	13.55	...
Black River	...	8.57	2.68
Bloomsbury	...	...	...
		—	—
	Means	11.35	3.56
		—	—

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 10.40 and 11.91 inches.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

		JUNE.	
		1889. | Average.	
		In.	In.
North Eastern Division		17.85	6.35
Northern	"	7.04	3.94
West Central	"	9.30	7.78
Southern	"	11.35	3.56
	The Island	11.39	5.66

The largest fall, (with the exception of that at Blue Mountain Peak) namely, 44.09 inches, was recorded at Port Antonio; the smallest, 2.85 inches, was recorded at Round Hill, Hanover.

The fall at Blue Mountain Peak for 28 days in June was 47.15 inches.

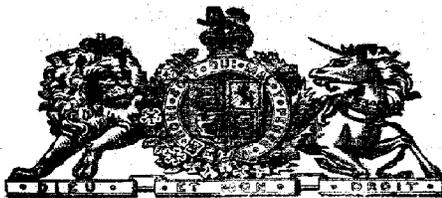
Heavy rain about the middle of the month and in some places towards the end of the month, more than made up the deficiency noted in the May rains, the fall in June being double the average for the whole Island and in many places three or four times the average.

In the Weather Reports for April and May it was stated that the largest falls for those months were respectively 22.61 and 21.20 in. recorded at Port Antonio and Dover. It appears however from returns since forwarded by Mr. F. A. Jenoure that these falls were exceeded at Boston, the fall for April having been 22.74 and for May 25.08 inches. The following notes are also from Mr. Jenoure's returns; 16 inches fell at Boston between 4 p.m. on 29th and 4 a.m. on 30th April; 11 inches fell on the 21st and 22nd May; and 11 inches fell on the 13th June and 8 inches on the 24th June.

Mr. S. W. Mais reports that a "very severe shock" of earthquake was felt at Halberstadt on the 21st June at about 6.15 p.m.; Dr. Mannors also reports a "sharp shock" at the Abbey at about the same time.

MAXWELL HALL,
Montego Bay P.O., 2nd August, 1889.

RECORDS DIVISION,
OFFICE CHIEF SIGNAL OFFICER.
SEP 20 1889



JAMAICA.

AUGUST 31, 1889.

No. 108.

WEATHER REPORT

FOR THE MONTH OF

JULY, 1889.

Published by Authority.

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

1889.

METEOROLOGICAL RESULTS FOR JULY, 1889.

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	30.022	29.974	77.8	87.2	72.6	74.7	0.801	0.860	82	71
King's House	400	29.76	29.71	75.7	85.7	71.0	80.0	0.759	1.023	86	83
Castleton Gardens	580	29.63	29.60	73.0	83.5	71.1	78.4	0.759	0.958	93	84
Cinchona Plantation	4,907	25.285	25.293	63.1	67.0	59.1	63.8	0.500	0.596	87	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	90.0	73.9	16.1	S. E.	111.4	94.3	28	71.9	8	22.4	inch.
King's House	84.0	68.5	15.5	...	...	87	5*	66	30	21	0.85
Castleton Gardens	87.8	70.8	17.0	...	...	94	29	68	10†	24	2.63
Cinchona Plantation	72.3	59.0	13.3	S. E.	67.1	75.4	24	54	27	21.4	6.76
											4.75

* And 6 and 31.

† And 21 and 22.

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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th	2.30 p.m.	60	50	65	60.00	Fine and bright at West, cloudy to S., thick fog to N.	H.C.M.
February 17th	7.45 a.m.	80	45	53	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd	10.0 a.m.	70	43	59	23.01	Bright sun clear on South, cloudy to North and East.	B. S. G.
" 18th	8. a.m.	77	49	54	5.50	Clear all round.	W. F.
" 30th	2.30 p.m.	72	40	54.5	2.25	Wet and windy from N.E.	B. S. G.
May 4th	10.30 a.m.	73	51	63	9.00	Fine but windy.	B. S. G.
June 1st	10.30 a.m.	68.5	56	57	11.43	Clear to North, cloudy on South.	B. S. G.
" 29th	11.10 a.m.	70	...	53	47.15	Wet, high wind, heavy clouds.	B. S. G.
July 27th	11.30 a.m.	64	...	58.5	8.60	Cloudy, but fine view to North.	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.	
	1889.	Average.
Infantile diseases not otherwise specified	25	16
Lung diseases	20	18
Fever	15	6
Dysentery and Diarrhoea	12	3
Various	59	54
Total	131	97

Of the various 27 were undescribed, 9 were due to Measles and 2 to Whooping Cough.

RAINFALL FOR JULY, 1889.

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, 1889, 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.

		1889. | Average.	
		In.	In.
Morant Point L. H.	St. Thomas	4.37	3.48
Quaw Hill	...	...	...
Hordley	...	10.72	6.29
Elmwood (Long Bay)	Portland	...	...
Boston	...	...	...
Port Antonio	...	...	...
Cinchona Plantation,	St. Andrew	4.75	4.78
New Haven Gap	...	...	...
Newton	...	1.90	...
Stony Hill Reformatory	...	9.02	4.90
Castleton Gardens	St. Mary	6.76	7.32
Dover	...	19.50	...
Quebec	...	...	...
Richmond	...	5.59	...
Port Maria	...	5.30	...
New Ramble	...	...	...
Gayle	...	3.15	...
Goshen	...	...	...
Rio Hoe	St. Ann	6.69	5.05
Unity Valley	...	...	6.91
Moneague	...	8.24	...
Albion	...	7.12	4.13
Averham Park	...	6.37	...
Bradfield	...	6.92	4.28
Drax Hall	...	2.01	2.91
Seville	...	...	2.02
Llandoverly	...	...	1.00
Richmond Estate	...	2.04	...
Southfield	...	2.44	...
Means		6.48	4.78

NORTHERN DIVISION.

JULY.

		1889. | Average.	
		In.	In.
Lillyfield	St. Ann	...	2.53
Home Castle	...	2.57	...
Richmond Pen	...	3.45	...
Colchis Pen	Trelawny	4.26	...
Mahogany Hall	...	6.61	5.94
Braco	...	3.28	2.41
Arcadia	...	4.48	...
Harmony Hall	...	...	...
Lancaster	...	2.65	2.66
Vale Royal	...	5.23	3.48
Hyde	...	3.07	6.21
Georgia	...	...	2.92
Steelfield	...	7.67	3.07
Oxford	...	6.41	...
Cambridge	...	6.22	3.75
Dry Valley	...	4.14	...
Lottery	...	5.73	2.40
Falmouth	...	5.45	1.49
Holland Pen	...	1.83	...
Golden Grove	...	4.00	5.70
Pembroke	...	...	3.06
Green Park	...	...	...
Phoenix	...	8.14	...
Tilston	...	5.08	4.44
Orange Valley	...	3.99	2.84
Kent	...	3.37	1.37
Dundee	...	6.05	3.91
Weston Favel	...	11.04	...
Gale's Valley	...	10.10	5.30
Greenwood	St. James	3.88	...
Bellfield	...	...	...
Guilbro'	...	11.05	...
Spring Vale	...	...	...
Cinnamon Hall	...	...	...

NORTHERN DIVISION, contd.

JULY.

		1889. | Average.	
		In.	In.
Rose Hall	...	...	...
Running Gut	...	...	...
Leogan	...	...	...
Ironshore	...	3.76	2.06
Providence	...	...	...
Montego Bay (Market)	...	5.88	...
Catherine Hall	St. James	6.00	3.33
Catherine Mount	...	6.25	4.89
Fairfield	...	5.76	...
Means		5.58	3.57

WEST CENTRAL DIVISION.

JULY.

		1889. | Average.	
		In.	In.
Binstead	St. Catherine	8.58	5.05
Cave Valley	St. Ann	8.55	5.15
Mandeville	Manchester	...	...
Derry	...	4.70	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	...	7.54
Windsor Pen	Trelawny	10.02	...
Maroon Town	St. James	11.97	...
Kepp	St. Elizabeth	8.66	8.31
Mount Edgcombe	Westmoreland	4.50	7.11
Windsor Forest	...	...	...
Woodstock	...	...	...
Struie	...	...	...
Kew Park	...	...	...
Hermitage	...	...	...
Chester Castle	Hanover	10.04	...
Copse	...	10.65	8.66
Haughton Grove	...	...	...
Kempshot	St. James	...	...
Anchovy	...	6.88	5.25
Wiltshire	...	...	6.27
Eden	...	7.75	...
Round Hill	Hanover	3.05	4.70
Cacoon Castle	...	15.15	7.75
Golden Grove	...	14.58	7.92
Great Valley Pen	...	12.23	...
Flint River	...	8.05	...
Tryall	...	6.13	5.56
Sweet River	Westmoreland	5.70	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	5.55	7.59
Kew	Hanover	...	...
Three Mile River	Westmoreland	4.90	...
Georges Plain Estate	...	6.48	...
Fontabelle	...	...	...
Belle Isle	...	15.65	...
King's Valley	...	14.28	...
Haughton Court	Hanover	...	...
Orange Cove	...	8.11	6.62
Abingdon	...	12.76	...
Means		8.37	6.64

SOUTHERN DIVISION.

JULY.

		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	2.36	...
The Abbey	...	11.40	...
Halberstadt	St. Andrew	...	...
Middleton	...	...	...
Woodford	...	3.54	...
Hope Plantation	...	2.48	...
Hope Reservoirs	...	...	...
Cherry Garden	...	...	...

SOUTHERN DIVISION *contd.*

JULY.

		1889 | Average.	
		In.	In.
Constant Spring	St. Andrew	4.95	...
Shortwood	...	...	...
King's House	...	2.63	...
Monaltrie	...	1.43	2.73
Public Works Office,	Kingston	0.72	2.03
Franklyn Town	...	...	...
Elletson Road	...	...	...
Plumb Point L. H.	...	1.04	2.17
Spanish Town	St. Catherine	0.80	1.84
Windsor Park	...	0.16	...
Hog Hole Pen	...	0.73	2.41
Headworks, R. C. C.	...	1.26	3.94
Old Harbour	...	1.95	...
Springfield	Clarendon	4.12	2.47
Farm Plantation	Manchester	5.25	3.67
Stone's Hope	...	...	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	2.71
Long Hill	...	2.57	4.34
Potsdam	...	2.45	...
Gilnock Hall	...	...	...
Santa Cruz Poor-house	...	6.61	...
Black River	...	...	5.16
Bloomsbury	...	...	...
Means		1.99	2.84

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 0.83 and 1.04 inches.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

		JULY.	
		1889. | Average.	
		In.	In.
North Eastern Division		6.48	4.78
Northern	"	5.58	3.57
West Central	"	8.37	6.64
Southern	"	1.99	2.84
The Island		5.60	4.46

The largest fall namely, 19.50 inches, was recorded at Dover, in St. Mary; the smallest 0.16 inches, was recorded at Windsor Park, St. Catherine.

MAXWELL HALL,

Kempshot, Montego Bay, August 28th, 1889.

THE JAMAICA WEATHER SERVICE.

Notice for the Hurricane Season of 1889.

(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 below its mean value for the time of day and year, all due corrections having been applied.

(2) Should the weather during these months be disturbed at any time, a circular telegram will be despatched as soon as possible, and copies of this telegram will be posted at all the telegraph stations in the Island.

(3) Each circular telegram 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. The forms used in posting copies of the telegram are printed on red paper.

(4) After the first circular telegram has been despatched, a second circular 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 the observers at Kingston and Montego Bay.

(5) The first circular telegram is intended to call public attention to the disturbed state of the weather as soon as possible; the second circular telegram is intended to give definite information, and warning when necessary. But due care should always be taken after the issue of the first telegram; for the telegraph wires may be broken before the second can be despatched; or two centres, or the curvature of a single centre on its course, may confuse the indications.

(6) 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 Milk River, Black River, Sav.-la-Mar, Lucea, Montego Bay, Falmouth, St. Ann's Bay Port Maria, Port Antonio and Morant Bay, who, upon the receipt of the first telegram, will keep themselves in readiness to warn the shipping in harbour should the second telegram render such warning necessary.

(7) Warnings will be given by means of flags and lamps; the flags are six feet square, having red borders enclosing black centres two feet square; the lamps, for use at night, emit a strong red light.

(8) The hurricane signals will be hoisted only under the following circumstances:—when specially ordered by warning telegrams, or when the telegraph wires are broken and a storm is clearly approaching.

(9) With the aid of the harbour master of Kingston special arrangements have been made as last year 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 Merchants' Exchange in Duke Street, and Mr. McDonald's Store in Harbour Street; and if necessary, hurricane flags will be hoisted at the two former places. Such notices will be signed by Mr. Robert Johnstone who has charge of the meteorologic instruments in Kingston.

(10) Arrangements have been made with the Jamaica Post Office, so that when under special circumstances due notice can be given to the Postmaster for Jamaica, the wires may be kept open between 5 p.m. and 7 a.m., and also on Sundays.

(11) Since the establishment of the service in 1880, twenty-five cyclonic disturbances have passed within barometric range of Jamaica, and information respecting them has 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 signals.

We may therefore expect that two or three disturbances will on an average be telegraphed around the Island each hurricane season; but only once in these nine years has it been necessary to telegraph at night, namely, on August 19th, 1886, and it has never been necessary to telegraph on a Sunday. But the emergency may arise, and it should be provided for; the telegraph clerks may, however 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.

MAXWELL HALL

Kempshot, Montego Bay,
August 3rd, 1889.



JAMAICA.

OCTOBER 9, 1889.

No. 109.

WEATHER REPORT

FOR THE MONTH OF

AUGUST, 1889.

Published by Authority.

JAMAICA:
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET, KINGSTON.
1889.

METEOROLOGICAL RESULTS FOR AUGUST, 1889.

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	29.972	77.9	86.5	70.3	73.5	0.741	0.826	78	65
King's House	400	29.72	29.71	75.5	85.9	69.7	79.8	0.733	0.990	83	72
Castleton Gardens	580	29.62	29.59	70.5	84.4	69.5	73.5	0.720	0.826	96	71
Cinchona Plantation	4,907	25.293	25.281	63.4	66.9	57.5	63.3	0.473	0.576	82	74

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	91.1	72.1	19.0	S. E.	103.5	93.5	4	69.3	10	24.2	2.02
King's House	83.9	69.2	14.7	...	...	86.0	2.13.15	65.0	30	21.0	2.40
Castleton Gardens	87.7	69.6	18.1	...	...	92.0	2.4.6	66.0	20	26.0	9.89
Cinchona Plantation	72.7	59.3	13.4	S. E.	60.3	75.0	21	54.0	11.30	21.0	3.64

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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th	2.30 p.m.	60	50	65	60.00	Fine and bright at West, cloudy to S., thick fog to N.	H. C. M.
February 17th	7.45 a.m.	80	45	53	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd	10.0 a.m.	70	43	59	23.01	Bright sun clear on South, cloudy to North and East.	B. S. G.
" 18th	8. a.m.	77	49	54	5.50	Clear all round.	W. F.
" 30th	2.30 p.m.	72	40	54.5	2.25	Wet and windy from N.E.	B. S. G.
May 4th	10.30 a.m.	73	51	63	9.00	Fine but windy.	B. S. G.
June 1st	10.30 a.m.	68.5	56	57	11.43	Clear to North, cloudy on South.	B. S. G.
" 29th	11.10 a.m.	70	53	58	47.15	Wet, high wind, heavy clouds.	B. S. G.
July 27th	11.30 a.m.	64	...	58.5	8.60	Cloudy but fine view to North.	B. S. G.
August 31st	10.40 a.m.	67.5	...	67	8.91	Fine and bright, hot sun, 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:—

	AUGUST.	
	1889.	Average.
Infantile diseases not otherwise specified	16	12
Lung diseases	20	16
Fever	15	4
Dysentery and Diarrhoea	9	3
Various	61	43
Total	121	78

RAINFALL FOR AUGUST, 1889.

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.

		1889. | Average.	
		In.	In.
Morant Point L. H.	St. Thomas	4.87	5.46
Hordley	...	8.65	10.78
Elmwood (Long Bay)	Portland	...	...
Boston	...	...	...
Port Antonio	...	13.41	...
Cinchona Plantation,	St. Andrew	3.64	8.18
New Haven Gap	...	...	...
Newton	...	1.80	...
Stony Hill Reformatory	...	6.06	12.66
Castleton Gardens	St. Mary	9.89	10.48
Dever	...	5.50	...
Quebec	...	1.83	...
Richmond	...	5.79	...
Port Maria	...	2.75	...
New Ramble	...	...	5.69
Gayle	...	2.70	6.26
Goshen	...	...	...
Rio Hoe	St. Ann	3.68	8.56
Unity Valley	...	...	5.33
Moneague	...	3.92	...
Albion	...	3.71	5.85
Averham Park	...	3.25	...
Bradfield	...	4.23	5.05
Drax Hall	...	3.24	3.81
Seville	...	3.66	3.63
Llandoverly	...	3.39	2.29
Richmond Estate	...	3.04	...
Southfield	...	...	...
Means		4.85	6.72

NORTHERN DIVISION. AUGUST.

		1889. | Average.	
		In.	In.
Lillyfield	St. Ann	...	5.50
Home Castle	...	1.46	...
Richmond Pen	...	1.00	...
Colchis Pen	Trelawny	2.83	...
Mahogany Hall	...	2.79	6.34
Braco	...	1.82	3.88
Arcadia	...	2.04	...
Harmony Hall	...	2.06	2.82
Lancaster	...	1.70	3.87
Vale Royal	...	2.85	5.44
Hyde	...	4.22	7.12
Georgia	...	...	4.64
Steelfield	...	2.97	4.66
Oxford	...	3.75	...
Cambridge	...	2.99	4.17
Dry Valley	...	3.21	...
Lottery	...	2.44	3.96
Falmouth	...	3.33	3.00
Holland Pen	...	2.09	...
Golden Grove	...	3.55	5.50
Pembroke	...	...	5.26
Green Park	...	...	3.79
Phoenix	...	6.22	...
Tilston	...	2.93	5.94
Orange Valley	...	2.81	3.57
Kent	...	2.78	2.90
Dundee	...	2.00	5.36
Weston Favel	...	8.53	...
Gale's Valley	...	4.15	6.88
Greenwood	St. James	4.76	...
Bellfield	...	...	...
Gnailsbro'	...	5.40	...
Spring Vale	...	9.11	12.84
Cinnamon Hall	...	1.91	...

NORTHERN DIVISION, contd. AUGUST.

		1889. | Average.	
		In.	In.
Rose Hall	St. James	2.15	...
Running Gut	...	3.52	...
Leogan	...	2.82	...
Ironshore	...	5.37	4.41
Providence	...	4.71	...
Montego Bay (Market)	...	5.33	...
Catherine Hall	...	5.65	6.40
Catherine Mount	...	5.51	8.31
Fairfield	...	4.58	...
Means		3.56	5.27

WEST CENTRAL DIVISION. AUGUST.

		1889. | Average.	
		In.	In.
Linstead	St. Catherine	8.93	7.41
Cave Valley	St. Ann	7.91	8.68
Derry	...	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	2.40	12.48
Windsor Pen	Trelawny	4.11	...
Maroon Town	St. James	15.57	...
Kepp	St. Elizabeth	7.28	11.32
Mount Edgecombe	Westmoreland	2.76	5.96
Windsor Forest	...	...	...
Woodstock	...	...	...
Struie	...	...	...
Kew Park	...	...	...
Chester Castle	Hanover	10.30	...
Copse	...	7.15	12.70
Haughton Grove	...	7.95	...
Kempshot	St. James	11.18	...
Anohovy	...	7.27	8.83
Wiltshire	...	6.37	8.57
Eden	...	7.58	...
Round Hill	Hanover	6.15	5.45
Cacoon Castle	...	12.96	10.86
Golden Grove	...	9.90	11.04
Great Valley Pen	...	13.40	...
Flint River	...	7.76	...
Tryall	...	7.75	6.06
Sweet River	Westmoreland	5.32	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	5.08	7.17
Kew	Hanover	13.52	...
Three Mile River	Westmoreland	6.90	...
Georges Plain Estate	...	8.20	...
Fontabelle	...	...	...
Belle Isle	...	8.70	...
King's Valley	...	11.31	...
Haughton Court	Hanover	...	...
Orange Cove	...	11.29	7.45
Abingdon	...	12.55	...
Means		7.22	8.85

SOUTHERN DIVISION. AUGUST.

		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	3.61	...
The Abbey	...	9.45	...
Halberstadt	St. Andrew	3.60	...
Middleton	...	...	...
Woodford	...	...	...
Hope Plantation	...	2.41	...
Hope Reservoirs	...	...	...
Cherry Garden	...	...	...

SOUTHERN DIVISION contd.

AUGUST.

		1889 | Average.	
		In.	In.
Constant Spring	St. Andrew	2.30	...
Shortwood	...	...	...
King's House	...	2.40	7.75
Monaltrie	...	3.08	6.36
Public Works Office,	Kingston	1.59	6.01
Franklyn Town	...	...	...
Elletson Road	...	2.02	...
Plumb Point L. H.	...	1.36	5.32
Spanish Town	St. Catherine	0.95	7.28
Windsor Park	...	1.03	...
Hog Hole Pen	...	1.32	7.24
Headworks, R. C. C.	...	2.95	8.14
Old Harbour	...	0.74	...
Springfield	Clarendon	...	...
Farm Plantation	Manchester	6.23	10.15
Stone's Hope	...	4.94	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	5.60	7.61
Long Hill	...	3.25	5.69
Potsdam	...	1.25	...
Gilcock Hall	...	0.78	...
Santa Cruz Poor-house	...	2.20	...
Black River	...	...	7.21
Bloombury	...	6.29	...
Means		2.87	7.16

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 1.07 and 1.36 inches.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

		AUGUST.	
		1889.	Average.
		In.	In.
North Eastern Division		4.85	6.72
Northern	"	3.56	5.27
West Central	"	7.22	8.85
Southern	"	2.87	7.16
The Island		4.62	7.00

The largest fall namely, 15.57 inches, was recorded at Maroon Town, St. James; the smallest 1.00 inches, was recorded at Richmond Pen, St. Ann.

M. H. 26.9.89.

CONFLICTING CYCLONES, SEPTEMBER 15th, 1889.

On September 13th the barometric pressure over Jamaica began to give way, and the upper cloud drift at Kempshot showed that the disturbance was apparently far to the west.

On September 14th the barometer was low and slightly inclined to fall; telegrams were exchanged between Kingston and Kempshot, when it was found that the fall at Kingston was larger than the fall at Kempshot; and as the wind and lower cloud-drift were then from the N.E. it was plain that Jamaica was threatened by a Cyclone situated some where to the S.E. The first warning circular to this effect was telegraphed round the Island at 1 p.m.

From Santiago de Cuba information was received that the disturbance noticed at Kempshot on the 13th was then S.W. of Havana, and therefore far removed from the present scene of action; that the bar. at Santiago was as low as that at Kingston and that the lower cloud-drift was also N.E. So most probably there were two storm centres near Jamaica, one N.E. and

threatening Santiago, and the other S.E. and threatening Jamaica. It was of course to the latter that the warnings in Jamaica applied.

During the 14th the pressure was practically steady from 7 a.m. to 7 p.m.; and the renewed fall was slow; so that it was impossible to say what course the Cyclone would take; the second warning circular was therefore issued at 10 p.m., the storm signals were hoisted, and the telegraph offices were closed.

On the morning of the 15th the weather was greatly confused; but as soon as the bar. rose and the winds set in from the S.E. in Kingston and from the S.W. at Kempshot, the signals were ordered down; and a subsequent study of the details showed that two small Cyclones passed Jamaica on the morning of the 15th one on each side of the Island, so that the winds from the two centres counteracted each other and produced irregular calms.

Confirming past experience, these centres united somewhere to the W. of Jamaica; this occurred about 7 p.m. on the 15th; and, as usual, their joint effect was to increase the action, so much so that the bar. hardly rose although the Cyclone was moving rapidly away; and a moderate gale from the S. over the western end of the Island during the night of the 15th gave a gentle reminder of the danger Jamaica had escaped.

The chart to accompany this Weather Report shows the position of the centres of these Cyclones at 3 a.m., 7 a.m., and 11 a.m. on the 15th; it was constructed with considerable difficulty for want of the usual wind data. At a distance of 9 miles from the centre of the northern Cyclone the fall below the mean was found to be 0.41 in.; at the same distance from the centre of the southern Cyclone the fall was found to be only 0.18 in.; so they were both small Cyclones; and as the southern was much the nearer of the two, its effect was sufficient to counterbalance the northern and larger Cyclone. As a test of the accuracy of the chart, the computed fall of the bar. at Kingston and Kempshot due to the varying influences of both Cyclones is here given:—

		Fall below the Mean.	
		Observed.	Computed.
		In.	In.
Kingston, 3 a.m.		0.232	0.282
" 7 "		0.219	0.219
" 11 "		0.180	0.176
Kempshot, 3 "		0.194	0.189
" 7 "		0.201	0.204
" 11 "		0.240	0.240

It is particularly to be noticed that the motion of these Cyclones from 3 a.m. to 7 a.m. was at the very slow rate of 4 miles an hour; indeed they may be regarded as having developed during the 14th a hundred miles east of their positions at 3 a.m. on the 15th; and that the rush leading to their junction commenced at 7 a.m. as soon as they began to feel their way, as it were, to join on the other side of Jamaica.

That the Cyclones developed near us, instead of coming to us from a distance, is easily ascertained from the general circumstances. Thus at 7 a.m. on the 14th the barometer at Kingston was 29.810, at Kempshot 29.848, giving a moderate barometric gradient; had the centre been at a great distance to the eastward, the gradient continually towards the centre must finally have produced a very low pressure at the centre of a great Cyclone; and this we happen to know was not the case; so the centres were really near Jamaica during the 14th.

At Kingston hourly readings were taken by Mr. R. Johnstone; but noting that the lowest bar. occurred there at 3 a.m. and at Kempshot at 11 a.m. on the 15th, the following extract from the Registers will probably suffice:—

* It has still to be engraved.—M. H. 23.9.89.

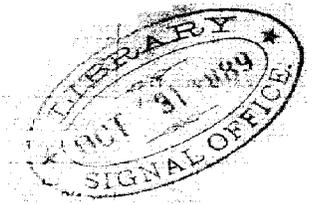
1889. September.	Kingston.			Kempshot.		
	Barometer.		Wind, Cloud.	Barometer.		Wind, Cloud.
	Cor. 32.° Sea-level.	Cleared of Diur. Var.		Cor. 32.° Sea-level.	Cleared of Diur. Var.	
	In.	In.		In.	In.	
13, 7 a.m. ...	29.886	29.872	Calm.	29.949	29.935	E., gentle.
3 p.m. ...	.826	.864	Upper N.W.*	.852	.890	Upper S.E.†
7 " ...	.836	.855	Clear.	.856	.875	Calm.
14, 7 a.m. ...	.824	.810	Calm.	.862	.848	N.E., fresh.
11 " ...	.821	.787	Lower N.E.	.854	.820	"
3 p.m. ...	.749	.787	"	.795	.833	"
7 " ...	.746	.765	"	.803	.822	"
11 " ...	.774	.749	"	...	...	"
15, 3 a.m. ...	.712	.730	No motion.	.750	.768	"
7 " ...	.757	.743	E.S.E. gentle.	.775	.761	No motion.
11 " ...	.816	.782	S.E. fresh.	.756	.722	S.W., fresh.
3 p.m. ...	.776	.814	Lower S.E.,	.735	.773	E., gale,
7 " ...	.809	.828	with squalls	.748	.767	with squalls
11 " ...	29.845	29.820	and rain.	29.785	29.760	and rain.

* Setting to the Cyclone N.E. of Jamaica.

† " " W. "

Kempshot, September 23rd, 1889.

MAXWELL HALL.





JAMAICA.

OCTOBER 28, 1889.

No. 110.

WEATHER REPORT

FOR THE MONTH OF

SEPTEMBER, 1889.

Published by Authority.

JAMAICA:
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET KINGSTON.

1889.

METEOROLOGICAL RESULTS FOR SEPTEMBER, 1889.

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	29.950	29.900	77.8	84.8	73.0	74.9	0.812	0.865	85	72
King's House	400	29.67	29.64	75.3	72.7	70.9	76.2	0.759	0.897	87	80
Castleton Gardens	580	29.56	29.57	75.1	81.2	67.6	77.7	0.672	0.958	77	91
Cinchona's Plantation	4,907	25.240	25.222	63.9	68.6	60.7	64.9	0.537	0.617	93	89

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	90.3	72.2	17.8	W.	64.4	93.4	29	68.2	24	25.2	4.56
King's House	82.9	67.7	15.2	...	...	86	15.17.22	65	31	21	10.98
Castleton Gardens	87.8	75.9	11.9	...	...	89	2.7.	64	12	25	17.35
Cinchona's Plantation	72.6	59.6	13.0	S.E.	40.4	75	25	55	6*	20	14.54

*And 3 other days.

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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th	2.30 p.m.	60	50	65	60.00	Fine and bright at West, cloudy to S., thick fog to N.	H.C.M.
February 17th	7.45 a.m.	80	45	53	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd	10.0 a.m.	70	43	59	23.01	Bright sun clear on South, cloudy to North and East.	B. S. G.
" 18th	8. a.m.	77	49	54	5.50	Clear all round.	W. F.
" 30th	2.30 p.m.	72	40	54.5	2.25	Wet and windy from N.E.	B. S. G.
May 4th	10.30 a.m.	73	51	63	9.00	Fine but windy.	B. S. G.
June 1st	10.30 a.m.	68.5	56	57	11.43	Clear to North, cloudy on South.	B. S. G.
" 29th	11.10 a.m.	70	...	53	47.15	Wet, high wind, heavy clouds.	B. S. G.
July 27th	11.30 a.m.	64	...	58.5	8.60	Cloudy but fine view to North.	B. S. G.
August 31st	10.40 a.m.	67.5	...	67	8.91	Fine and bright, hot sun, calm.	B. S. G.
Sept. 29th	4. p.m.	72	...	55	14.06	Clear, good views on all sides.	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:—

	1889. | Average.	
	1889.	Average.
Infantile diseases not otherwise specified	15	11
Lung diseases	18	13
Fever	14	5
Dysentery and Diarrhoea	4	2
Various	77	39
Total	128	70

Of the various 28 were due to whooping cough and 16 were undescribed.

RAINFALL FOR SEPTEMBER, 1889.

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, 1888, 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. SEPTEMBER.

		1889. | Average.	
		In.	In.
Morant Point L. H.	St. Thomas	15.82	7.64
Hordley	...	17.39	12.78
Elmwood (Long Bay)	Portland	...	...
Boston	...	...	...
Port Antonio	...	7.77	...
Cinchona Plantation,	St. Andrew	14.54	13.21
New Haven Gap	...	...	...
Newton	...	...	...
Stony Hill Reformatory	...	21.44	10.26
Castleton Gardens	St. Mary	17.35	11.22
Dover	...	7.80	...
Quebec	...	...	...
Richmond	...	7.81	...
Port Maria	...	3.42	...
New Ramble	...	...	5.88
Gayle	...	4.00	...
Goshen	...	...	...
Rio Hce	St. Ann	5.78	6.51
Unity Valley	...	...	7.62
Moneague	...	4.60	...
Albion	...	10.10	6.36
Averham Park	...	5.89	...
Bradfield	...	2.65	6.19
Drax Hall	...	1.79	4.21
Seville	...	2.02	4.22
Llandoverly	...	2.30	4.70
Richmond Estate	...	1.95	5.69
Southfield	...	...	...
Means		10.11	7.85

NORTHERN DIVISION. SEPTEMBER.

		1889. | Average.	
		In.	In.
Lillyfield	St. Ann	...	...
Home Castle	...	2.40	...
Richmond Pen	...	4.55	...
Cofchis Pen	Trelawny	2.88	...
Mahogany Hall	...	6.53	...
Braco	...	1.42	4.65
Arcadia	...	4.52	...
Harmony Hall	...	...	4.61
Lancaster	...	1.65	4.80
Vale Royal	...	2.71	4.98
Hyde	...	3.61	7.03
Georgia	...	...	4.08
Steelfield	...	4.41	4.51
Oxford	...	3.70	...
Cambridge	...	4.09	4.56
Dry Valley	...	3.50	...
Lottery	...	4.88	4.77
Falmouth	...	3.83	3.29
Holland Pen	...	2.74	...
Golden Grove	...	3.40	6.90
Pembroke	...	...	5.72
Green Park	...	...	...
Phoenix	...	4.84	...
Tilston	...	4.08	4.26
Orange Valley	...	2.60	2.73
Kent	...	2.91	4.49
Dundee	...	3.86	3.98
Weston Favel	...	3.30	...
Gale's Valley	...	2.75	5.73
Greenwood	St. James	2.72	...
Bellfield	...	...	...
Gullsbro'	...	4.55	...
Spring Vale	...	...	9.72
Cinnamon Hall	...	...	...

NORTHERN DIVISION, contd. SEPTEMBER.

		1889. | Average.	
		In.	In.
Rose Hill	St. James	...	...
Running Gut	...	2.55	3.66
Leogan	...	...	...
Ironshore	...	2.17	4.75
Providence	...	...	...
Montego Bay (Market)	...	...	...
Catherine Hall	...	4.55	7.77
Catherine Mount	...	...	6.10
Fairfield	...	...	...
Means		3.26	4.87

WEST CENTRAL DIVISION. SEPTEMBER.

		1889. | Average.	
		In.	In.
Linstead	St. Catherine	6.27	...
Cave Valley	St. Ann	9.49	7.36
Derry	...	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	13.04	11.55
Windsor Pen	Trelawny	13.41	...
Maroon Town	St. James	13.59	...
Kepp	St. Elizabeth	14.88	11.91
Mount Edgescombe	Westmoreland	11.29	9.43
Windsor Forest	...	...	...
Woodstock	...	...	...
Struie	...	...	...
Kew Park	...	...	...
Chester Castle	Hanover	10.00	...
Copse	...	...	10.79
Houghton Grove	...	...	...
Kampshot	St. James	11.96	...
Anchoy	...	...	7.79
Wiltshire	...	5.15	8.65
Eden	...	...	...
Round Hill	Hanover	5.30	5.37
Cacoon Castle	...	10.06	9.32
Golden Grove	...	13.71	...
Great Valley Pen	...	...	...
Flint River	...	...	...
Tryall	...	...	4.67
Sweet River	Westmoreland	...	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	5.78	6.93
Kew	Hanover	...	...
Three Mile River	Westmoreland	...	...
Georges Plain Estate	...	12.07	...
Fontabelle	...	...	...
Belle Isle	...	15.95	...
King's Valley	...	...	...
Houghton Court	Hanover	...	...
Orange Cove	...	5.62	8.19
Abingdon	...	5.65	...
Means		8.96	8.75

SOUTHERN DIVISION. SEPTEMBER.

		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	3.62	...
The Abbey	...	9.00	...
Halberstadt	St. Andrew	7.20	...
Middleton	...	8.90	...
Woodford	...	18.85	...
Mona	...	8.03	...

*Gauge overflowing 6th 15th.

		1889 | Average.	
		In.	In.
Hope Plantation	St. Andrew	12.20	...
Hope Reservoirs	...	...	...
Cherry Garden	...	...	...
Constant Spring	...	16.42	...
Shortwood	...	9.90	...
Camperdown	...	8.52	...
King's House	...	...	...
Monaltrie	...	8.33	7.20
Public Works Office,	Kingston	4.57	5.03
Franklyn Town	...	...	...
Elletson Road	...	4.55	...
Plumb Point L. H.	...	4.19	4.30
Spanish Town	St. Catherine	7.88	...
Windsor Park	...	...	...
Hog Hole Pen	...	8.67	...
Headworks, R. C. C.	...	9.82	...
Old Harbour	...	4.39	...
Springfield	Clarendon	8.08	...
Farm Plantation	Manchester	15.94	7.65
Stone's Hope	...	14.88	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	...
Long Hill	...	21.07	9.20
Potsdam	...	8.93	...
Gilnock Hall	...	...	...
Santa Cruz Poor-house	...	14.62	...
Black River	...	...	5.07
Bloomsbury	...	...	...
Means		10.82	6.68

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 3.89 and 4.19 inches.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

		SEPTEMBER.	
		1889. | Average.	
		In.	In.
North Eastern Division		10.11	7.85
Northern	"	3.26	4.87
West Central	"	8.96	8.75
Southern	"	10.82	6.68
The Island		8.29	7.04

The largest fall namely, 21.44 inches, was recorded at Stony Hill Reformatory; the smallest 1.42 inches, was recorded at Braco in Trelawny.

Mr. Harrison, of Hordly Estate, reports a "heavy flood" in the Plantain Garden River on the 14th, and a "sudden and severe flood" on the 18th September, the rainfall for those days at Hordley being respectively 6.76 and 3.63 inches.

Dr. Manners reports a double shock of earthquake at midnight on the 14th, and a shock of earthquake on the 7th at 5 a.m. at the Abbey.

There was also a light shock of earthquake felt in Kingston at 9.13 a.m. on the 7th.

The following are some magnetic observations taken by Mr. Maxwell Hall, at Kempshot Observatory on the days stated. They were made with instruments lent to Mr. Hall by the Royal Astronomical Society of London. The Magnetic Intensity has not yet been ascertained.

The latitude of Kempshot is 18° 24' 51" N, and the longitude 77° 52' 23" W.

MAGNETIC DECLINATION OR Variation of the Magnetic Needles—

1889—Sept. 18	8° 10' E.
19	12
20	11
21	10
22	10
23	11
24	10
25	15
26	10
28	3 10
Mean	3 10.9 E.

MAGNETIC INCLINATION OR Dip of the north end of the needle below the horizontal line—

1889—Sept. 25	46° 28'
Oct. 2	46 31
Mean	46 30

BAROMETRIC DEPRESSIONS, SEPTEMBER, 1889.

No. 1 was what is now called the St. Thomas Hatteras Hurricane of September 3—12. During the afternoon and night of the 3rd the pressure in Jamaica began to give way, and at 7 a.m. on the 4th (about noon G. M. T.) the barometer was a tenth of an inch below the mean. During the morning telegrams were exchanged between Kempshot and Kingston, and information was received in Kingston, at the Ocean Telegraph Office, that on the preceding day a severe storm had been felt at St. Thomas and the Islands to the South East. During the day the pressure remained steady in Jamaica and in the afternoon, with a view of relieving alarm, notices were sent to the Press, the Merchants' Exchange and other places, to the effect that the cyclone which had passed over St. Thomas on the 3rd would probably pass far to the North Eastward of Jamaica on the 5th and that the pressure would remain low for a day or two under the influence of this cyclone. This turned out to be the case and the Cyclone passed up from St. Thomas, between Turks Islands and the Bermudas, to New York, and remained nearly stationary off the American coast for two or three days, and eventually blew itself out on reaching the mainland. A special Supplement to the Pilot Chart for October, descriptive of this storm, has already been issued by the Hydrographic Office of the United States, which is stated to be only preliminary to a fuller Chart to be issued subsequent to the receipt of more detailed information.

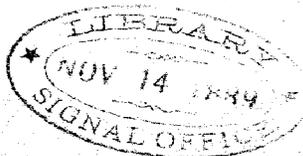
Nos. 2 and 3 are the depressions which joined to the West of Jamaica on the 15th September, a description of which has already been included in the Weather Report for August.

The hurricane season, up to the end of September, has been very similar this year to that of last year. In both years there was an absence of depressions within barometric range of Jamaica during August, followed by a cyclone of great energy in the first few days of September, first noticed in the neighbourhood of St. Thomas. The tracks of these two storms varied considerably, but each of them had something unusual in its character. In 1888 the cyclone after travelling nearly due West took a Southerly instead of Northerly curve, and in 1889 the cyclone, after travelling more or less North-westerly, remained stationary off the American coast, being prevented from curving to the North East by a region of high pressure in that direction.

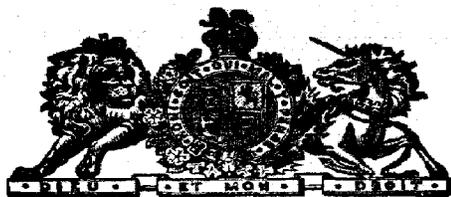
In both years too about the middle of the month depressions have occurred near Jamaica which have developed into cyclones, travelling in the usual direction to the N.W. or W.N.W.

ROBT. JOHNSTONE.

Kingston, 21st October, 1889.



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JAMAICA.

NOVEMBER 26, 1889.

No. 111.

WEATHER REPORT

FOR THE MONTH OF

OCTOBER, 1889.

Published by Authority.

JAMAICA:
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET KINGSTON.

1889.

METEOROLOGICAL RESULTS FOR OCTOBER, 1889.

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	29.959	29.904	76.2	84.5	70.6	73.1	0.749	0.815	83	69
King's House	...	400	29.68	29.64	...	...	...	...	...	...	...	...
Castleton Gardens	...	580	29.54	29.52	68.2	78.3	64.7	74.1	0.617	0.840	87	88
Cinchona Plantation	...	4,907	25.307	25.177	64.7	67.5	58.7	62.9	0.500	0.576	81	86

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	...	89.7	71.2	18.5	Var.	56.5	93.8	8	67.8	5	26.0	4.20
King's House	66.4	...	...	...	...	...	...	...	...	5.09
Castleton Gardens	...	84.8	69.3	15.5	...	...	89	15	65	6.24	24	18.40
Cinchona Plantation	...	73.9	58.5	15.4	N.E.	33	75	9	51	20	24	8.24

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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th	... 2.30 p.m.	60	50	65	60.00	Fine and bright at West, cloudy to S., thick fog to N.	H.C.M.
February 17th	... 7.45 a.m.	80	45	53	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd	... 10.0 a.m.	70	43	59	23.01	Bright sun clear on South, cloudy to North and East.	B. S. G.
" 18th	... 8. a.m.	77	49	54	5.50	Clear all round.	W. F.
" 30th	... 2.30 p.m.	72	40	54.5	2.25	Wet and windy from N.E.	B. S. G.
May 4th	... 10.30 a.m.	73	51	63	9.00	Fine but windy.	B. S. G.
June 1st	... 10.30 a.m.	68.5	56	57	11.43	Clear to North, cloudy on South.	B. S. G.
" 29th	... 11.10 a.m.	70	...	53	47.15	Wet, high wind, heavy clouds.	B. S. G.
July 27th	... 11.30 a.m.	64	...	58.5	8.60	Cloudy but fine view to North.	B. S. G.
August 31st	... 10.40 a.m.	67.5	...	67	8.91	Fine and bright, hot sun, calm.	B. S. G.
Sept. 29th	... 4. p.m.	72	...	55	14.06	Clear, good views on all sides.	B. S. G.
October 26th	... 11.15 a.m.	75	...	58.5	11.65	Dense clouds all round	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:—

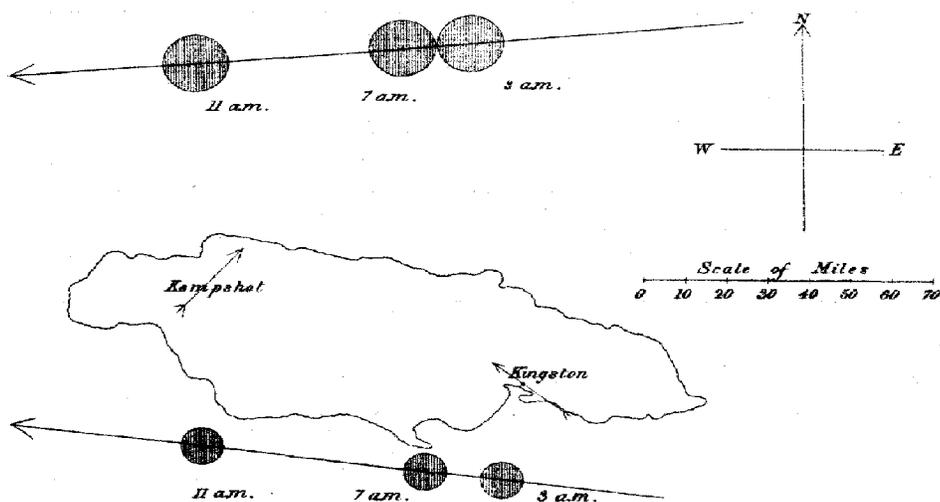
	OCTOBER.		
	1889.	Average.	
Infantile diseases not otherwise specified	...	16	13
Lung diseases	...	20	12
Fever	...	5	5
Dysentery and Diarrhoea	...	5	3
Various	...	79	46
Total		125	79

Of the various 42 were due to whooping cough and 21 were undescribed.

RAINFALL FOR OCTOBER, 1889.

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, 1888, 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:—

CYCLONES, SEPT. 15, 1889.



The wind at 11 am. is charted for Kempshol and Kingston.

NORTH-EASTERN DIVISION. OCTOBER.

		1889. | Average.	
		In.	In.
Morant Point L. H.	St. Thomas	7.54	13.40
Hordley	...	12.48	14.55
Elmwood (Long Bay)	Portland	...	...
Boston	...	...	...
Port Antonio	...	...	...
Cinchona Plantation,	St. Andrew	8.24	20.58
New Haven Gap	...	...	...
Newton	...	...	...
Stony Hill Reformatory	...	9.13	15.60
Castleton Gardens	St. Mary	18.40	12.49
Dover	...	24.65	...
Quebec	...	...	...
Richmond	...	8.50	...
Port Maria	...	11.60	...
New Ramble	...	...	7.08
Gayle	...	12.70	18.98
Goshen	...	...	...
Rio Hoe	St. Ann	13.33	13.07
Unity Valley	...	13.17	7.85
Moneague	...	11.92	...
Albion	...	15.53	7.88
Averham Park	...	11.68	...
Bradfield	...	7.74	7.67
Drax Hall	...	...	7.30
Seville	...	...	6.86
Llandoverly	...	...	8.17
Richmond Estate	...	12.69	9.28
Southfield	...	...	...
Means		11.90	12.40

NORTHERN DIVISION. OCTOBER.

		1889. | Average.	
		In.	In.
Lillyfield	St. Ann	...	9.76
Home Castle	...	...	...
Richmond Pen	...	...	...
Colchis Pen	Trelawny	...	...
Mahogany Hall	...	10.78	5.02
Brace	...	...	4.81
Arcadia	...	...	...
Harmony Hall	...	11.11	4.14
Lancaster	...	...	5.16
Vale Royal	...	...	5.91
Hyde	...	...	7.59
Georgia	...	...	5.29
Steelfield	...	...	5.98
Oxford	...	...	...
Cambridge	...	...	4.86
Dry Valley	...	10.81	...
Lottery	...	...	6.12
Falmouth	...	10.93	...
Holland Pen	...	...	...
Golden Grove	...	9.60	6.66
Pembroke	...	...	5.17
Green Park	...	...	5.95
Phoenix	...	11.25	...
Tilston	...	10.69	6.69
Orange Valley	...	5.92	5.31
Kent	...	9.19	5.65
Dundee	...	7.75	5.70
Weston Favel	...	9.70	...
Gale's Valley	...	6.60	7.43
Greenwood	St. James	8.41	...
Bellfield	...	...	...
Gullsbro'	...	10.35	...
Spring Vale	...	...	8.62
Cinnamon Hall	...	...	...

NORTHERN DIVISION, contd. OCTOBER.

		1889. | Average.	
		In.	In.
Rose Hall	St. James	...	...
Running Gut	...	5.45	5.63
Leogan	...	8.21	...
Ironshore	...	5.62	5.25
Providence	...	...	...
Montego Bay (Market)	...	7.58	...
Catherine Hall	...	10.00	6.73
Catherine Mount	...	8.75	7.67
Fairfield	...	8.91	...
Means		8.45	5.99

WEST CENTRAL DIVISION. OCTOBER.

		1889. | Average.	
		In.	In.
Linstead	St. Catherine	8.47	9.16
Cave Valley	St. Ann	...	13.41
Derry	...	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	15.61	12.10
Windsor Pen	Trelawny	11.74	...
Maroon Town	St. James	9.08	...
Kepp	St. Elizabeth	...	11.39
Mount Edgecombe	Westmoreland	15.61	8.93
Windsor Forest	...	...	...
Woodstock	...	...	...
Struie	...	...	...
Kew Park	...	11.89	...
Chester Castle	Hanover	7.58	...
Copae	...	11.61	10.94
Haughton Grove	...	...	...
Kempshot	St. James	...	...
Anchovy	...	8.91	7.13
Wiltshire	...	9.68	7.90
Eden	...	9.93	...
Round Hill	Hanover	8.15	5.45
Cacoon Castle	...	10.86	8.11
Golden Grove	...	8.45	9.74
Great Valley Pen	...	14.98	...
Flint River	...	9.43	...
Tryall	...	9.55	6.85
Sweet River	Westmoreland	12.26	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	8.75	8.42
Kew	Hanover	...	...
Three Mile River	Westmoreland	...	...
Georges Plain Estate	...	11.64	...
Fontabelle	...	...	...
Belle Isle	...	14.65	...
King's Valley	...	...	...
Haughton Court	Hanover	...	...
Orange Cove	...	...	9.06
Abingdon	...	13.69	...
Means		10.55	8.61

SOUTHERN DIVISION. OCTOBER.

		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	3.99	...
The Abbey	...	11.00	...
Halberstadt	St. Andrew	6.35	...
Middleton	...	...	...
Woodford	...	13.48	...
Mona	...	...	...

SOUTHERN DIVISION, *contd.*

		SEPTEMBER.	
		1889 | Average.	
		In.	In.
Hope Plantation	St. Andrew	...	...
Hope Reservoirs	...	...	9.56
Cherry Garden	...	5.65	...
Constant Spring	...	...	...
Shortwood	...	5.56	...
Camperdown	...	5.70	...
King's House	...	5.09	12.19
Monairie	...	7.22	11.64
Public Works Office,	Kingston	3.69	10.28
Franklyn Town	...	...	...
Elletson Road	...	4.20	...
Plumb Point L. H.	...	4.14	9.96
Spanish Town	St. Catherine	5.94	8.52
Windsor Park	...	...	...
Hog Hole Pen	...	8.88	8.09
Headworks, R. C. C.	...	7.10	10.24
Old Harbour	...	12.28	...
Springfield	Clarendon	8.32	...
Farm Plantation	Manchester	12.53	14.32
Stone's Hope	...	9.87	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	10.07
Long Hill	...	16.60	8.85
Potsdam	...	11.61	...
Gilnock Hall	...	...	...
Santa Cruz Poor-house	...	19.05	...
Black River	...	...	9.32
Bloomsbury	...	...	...
Means		7.91	10.45

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 3.38 and 4.14 inches.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

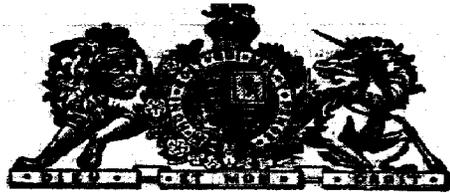
		OCTOBER.	
		1889. | Average.	
		In.	In.
North Eastern Division		11.90	12.40
Northern	"	8.45	6.99
West Central	"	10.55	8.61
Southern	"	7.91	10.45
The Island		9.70	9.36

The largest fall namely, 24.65 inches, was recorded at Dover in St. Mary; the smallest 3.69 inches, was recorded at the Public Works Office, Kingston.

The Southern Division was the only Division of the Island in which the October rains or "seasons" failed to come up to the average; in the others the fall as a whole was about or above the average.

ROBT. JOHNSTONE,

Kingston, 16th Nov., 1889.



JAMAICA.

DECEMBER 24, 1889.

No. 112.



WEATHER REPORT

FOR THE MONTH OF

NOVEMBER, 1889.

Published by Authority.

METEOROLOGICAL RESULTS FOR NOVEMBER, 1889.

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. 29.998	in. 29.929	° 73.8	° 85.3	° 68.3	° 70.9	in. 0.692	in. 0.756	83	62
King's House	400										
Castleton Gardens	580										
Cinchona Plantation	4,907										

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	89.9	69.7	20.2	S.E.	50.8	92.2	4	66.5	27	25.7	inch. 0.19
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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th	2.30 p.m.	60	50	65	60.00	Fine and bright at West, cloudy to S., thick fog to N.	H.C.M.
February 17th	7.45 a.m.	80	45	53	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd	10.0 a.m.	70	43	59	23.01	Bright sun clear on South, cloudy to North and East.	B. S. G.
" 18th	8 a.m.	77	49	54	5.50	Clear all round.	W. F.
" 30th	2.30 p.m.	72	40	54.5	2.25	Wet and windy from N.E.	B. S. G.
May 4th	10.30 a.m.	73	51	63	9.00	Fine but windy.	B. S. G.
June 1st	10.30 a.m.	68.5	56	57	11.43	Clear to North, cloudy on South.	B. S. G.
" 29th	11.10 a.m.	70	...	53	47.15	Wet, high wind, heavy clouds.	B. S. G.
July 27th	11.30 a.m.	64	...	58.5	8.60	Cloudy but fine view to North.	B. S. G.
August 31st	10.40 a.m.	67.5	...	67	8.91	Fine and bright, hot sun, calm.	B. S. G.
Sept. 29th	4 p.m.	72	...	55	14.06	Clear, good views on all sides.	B. S. G.
October 26th	11.15 a.m.	75	...	58.5	11.65	Dense clouds all round	B. S. G.
November 30th.	2.15 p.m.	66	44	53.5	19.15	Cloudy, 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:—

	NOVEMBER.	
	1889.	Average.
Infantile diseases not otherwise specified	19	14
Lung diseases	14	14
Fever	7	8
Dysentery and Diarrhoea	5	3
Various	63	55
Total	108	94

Of the various 21 were due to whooping cough and 19 were undescribed.

RAINFALL FOR NOVEMBER, 1889.

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, 1888, 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.		NOVEMBER.	
		1889. | Average.	
		In.	In.
Morant Point L. H.	St. Thomas	2.67	8.72
Hordley	...	4.85	10.19
Elmwood (Long Bay)	Portland	...	...
Boston	...	...	...
Port Antonio	...	...	...
Cinchona Plantation,	St. Andrew	4.00	13.66
New Haven Gap	...	...	...
Newton	...	...	...
Stony Hill Reformatory	...	1.74	8.65
Castleton Gardens	St. Mary	...	10.68
Dever	...	...	...
Quebec	...	...	...
Richmond	...	6.85	...
Port Maria	...	5.16	...
New Ramble	...	...	11.69
Gayle	...	...	...
Goshen	...	...	...
Rio Hoe	St. Ann	9.27	8.83
Unity Valley	...	8.26	7.59
Moneague	...	7.32	...
Albion	...	6.35	10.23
Averham Park	...	10.14	...
Bradfield	...	5.68	...
Drax Hall	...	5.14	11.06
Seville	...	6.51	9.31
Llandovery	...	7.20	7.51
Richmond Estate	...	7.43	8.45
Southfield	...	...	...
Means		5.72	9.47

NORTHERN DIVISION.		NOVEMBER.	
		1889. | Average.	
		In.	In.
Home Castle	St. Ann	...	...
Richmond Pen	...	2.90	...
Colchis Pen	Trelawny	3.91	...
Mahogany Hall	...	7.62	4.19
Braco	...	5.70	6.13
Arcadia	...	7.45	...
Harmony Hall	...	4.46	...
Lancaster	...	5.31	6.76
Vale Royal	...	7.36	7.05
Hyde	...	5.20	7.52
Georgia	...	...	6.10
Steelfield	...	5.87	5.74
Oxford	...	4.90	...
Cambridge	...	5.86	4.64
Dry Valley	...	5.06	...
Lottery	...	5.17	4.93
Falmouth	...	7.80	...
Holland Pen	...	3.96	...
Golden Grove	...	5.00	5.71
Pembroke	...	...	5.29
Green Park	...	...	6.15
Phoenix	...	4.85	...
Tilston	...	4.77	5.04
Orange Valley	...	4.40	5.24
Kent	...	4.70	4.00
Dundee	...	2.25	7.50
Weston Favel	...	6.47	...
Gale's Valley	...	4.70	4.73
Greenwood	St. James	6.33	...
Bellfield	...	...	...
Guildbro'	...	10.62	...
Spring Vale	...	...	5.03
Cinnamon Hall	...	...	...

NORTHERN DIVISION, contd.		NOVEMBER.	
		1889. | Average.	
		In.	In.
Rose Hall	St. James	...	...
Running Gut	...	4.76	...
Leogan	...	5.31	...
Ironshore	...	4.00	3.20
Providence	...	...	...
Montego Bay (Market)	...	5.40	...
Catherine Hall	...	6.89	3.40
Catherine Mount	...	6.44	4.16
Fairfield	...	6.99	...
Means		5.36	5.29

WEST CENTRAL DIVISION.		NOVEMBER.	
		1889. | Average.	
		In.	In.
Linstead	St. Catherine	2.48	4.89
Cave Valley	St. Ann	4.97	5.26
Derry	...	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	...	6.02
Windsor Pen	Trelawny	4.51	...
Maroon Town	St. James	...	...
Kepp	St. Elizabeth	4.29	5.93
Mount Edgecombe	Westmoreland	3.39	4.72
Windsor Forest	...	...	...
Woodstock	...	5.81	...
Struie	...	...	...
Kew Park	...	3.39	...
Chester Castle	Hanover	3.16	...
Copae	...	...	7.61
Haughton Grove	...	...	...
Kempshot	St. James	...	...
Anchovy	...	4.22	3.77
Wiltshire	...	1.94	5.58
Elden	...	4.61	...
Round Hill	Hanover	2.75	3.50
Cacoon Castle	...	3.63	5.89
Golden Grove	...	...	5.89
Great Valley Pen	...	2.30	...
Flint River	...	4.65	...
Tryall	...	5.55	3.64
Sweet River	Westmoreland	...	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	1.43	4.52
Kew	Hanover	...	...
Three Mile River	Westmoreland	...	...
George's Plain Estate	...	...	...
Fontabelle	...	...	...
Belle Isle	...	3.05	...
King's Valley	...	...	...
Haughton Court	Hanover	...	...
Orange Cove	...	3.51	...
Abingdon	...	3.00	...
Means		3.47	4.77

SOUTHERN DIVISION.		NOVEMBER.	
		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	...	...
The Abbey	...	1.20	...
Halberstadt	St. Andrew	...	...
Middleton	...	...	...
Woodford	...	...	...
Mona	...	...	...

SOUTHERN DIVISION, *contd.*

		NOVEMBER.	
		1889	Average.
		In.	In.
Hope Plantation	St. Andrew	0.84	...
Hope Reservoirs	...	...	...
Cherry Garden	...	1.28	...
Constant Spring	...	0.60	...
Shortwood	...	...	...
Camperdown	...	0.84	...
King's House	...	1.42	2.44
Monaltrie	...	0.72	5.71
Public Works Office,	Kingston	0.07	3.90
Franklyn Town	...	...	...
Elletson Road	...	0.19	...
Plumb Point L. H.	...	0.05	3.50
Spanish Town	St. Catherine	5.94	2.66
Windsor Park	...	...	...
Hog Hole Pen	...	5.02	3.62
Headworks, R. O. C.	...	8.00	5.00
Old Harbour	...	6.89	...
Springfield	Clarendon	1.39	...
Farm Plantation	Manchester	3.99	5.40
Stone's Hope	...	...	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	5.09
Long Hill	...	4.33	3.83
Potsdam	...	2.08	...
Gilnock Hall	...	...	...
Santa Cruz Poor-house	...	5.49	...
Black River	...	...	5.43
Bloomsbury	...	...	...
Means		3.28	3.98

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered respectively 0.04 and 0.05 inches.

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

			NOVEMBER.	
			1889	Average.
			In.	In.
North Eastern Division			5.72	9.47
Northern	"		5.36	5.29
West Central	"		3.47	4.77
Southern	"		3.28	3.98
The Island			4.46	5.88

The largest fall namely, 10.62 inches, was recorded at Guilsbro' in St. James; the smallest 0.05 inches, was recorded at the Plumb Point Lighthouse.

The rainfall was below the average in every division except the Northern.

Mr. C. C. Plunkett reports that a sharp shock of earthquake was felt at Belle Isle Estate, Westmoreland, at 2.35 p.m. on the 23rd November.

ROBT. JOHNSTON,

Kingston, 18th December, 1889.



JAMAICA.

FEBRUARY 4, 1890.

No. 118.

WEATHER REPORT

FOR THE MONTH OF

DECEMBER, 1889.

Published by Authority.

JAMAICA:
GOVERNMENT PRINTING ESTABLISHMENT, 79 DUKE STREET KINGSTON.

1890.

METEOROLOGICAL RESULTS FOR DECEMBER, 1889.

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	30.023	29.954	68.6	85.6	64.4	66.9	0.605	0.659	87	54
King's House	400										
Castleton Gardens	590										
Cinchona Plantation	4,907										

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.	
	°	°	°	S.		°		°		°	inch.
Kingston	89.1	65.0	24.1	S.	21.4	92.6	2	60.4	29	32.2	0.01
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.

DAY.	HOUR.	TEMPERATURE.		Temp.	Rain.	Remarks.	Observer's Initials.
		Max.	Min.				
1889.		°	°	°	in.		
January 26th	2.30 p.m.	60	50	65	60.00	Fine and bright at West, cloudy to S., thick fog to N.	H.C.M.
February 17th	7.45 a.m.	80	45	53	0.42	Strong wind from North-West, cloudy on North.	T. C.
March 2nd	10.0 a.m.	70	43	59	23.01	Bright sun clear on South, cloudy to North and East.	B. S. G.
" 18th	8 a.m.	77	49	54	5.50	Clear all round.	W. F.
" 30th	2.30 p.m.	72	40	54.5	2.25	Wet and windy from N.E.	B. S. G.
May 4th	10.30 a.m.	73	51	63	9.00	Fine but windy.	B. S. G.
June 1st	10.30 a.m.	68.5	56	57	11.43	Clear to North, cloudy on South.	B. S. G.
" 29th	11.10 a.m.	70	...	53	47.15	Wet, high wind, heavy clouds.	B. S. G.
July 27th	11.30 a.m.	64	...	58.5	8.60	Cloudy but fine view to North.	B. S. G.
August 31st	10.40 a.m.	67.5	...	67	8.91	Fine and bright, hot sun, calm.	B. S. G.
Sept. 29th	4 p.m.	72	...	55	14.06	Clear, good views on all sides.	B. S. G.
October 26th	11.15 a.m.	75	...	58.5	11.65	Dense clouds all round.	B. S. G.
November 30th	2.15 p.m.	66	44	53.5	19.15	Cloudy, 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:—

	DECEMBER.	
	1889.	Average.
Infantile diseases not otherwise specified	14	17
Lung diseases	29	14
Fever	15	10
Dysentery and Diarrhoea	4	5
Various	64	55
Total	126	101

Of the various 6 were due to whooping cough and 37 were undescribed.

RAINFALL FOR DECEMBER, 1889.

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.	
		1889. | Average.	
		In.	In.
Morant Point L. H.	St. Thomas	2.86	6.78
Hordley	...	1.50	8.57
Elmwood (Long Bay)	Portland	...	...
Boston	...	...	...
Port Antonio	...	...	...
Cinchona Plantation,	St. Andrew	...	13.83
New Haven Gap	...	...	...
Newton	...	5.02	...
Stony Hill Reformatory	...	5.47	3.71
Castleton Gardens	St. Mary	...	13.7
Dover	...	6.85	...
Quebec	...	...	...
Richmond	...	8.04	...
Port Maria	...	2.99	...
New Ramble	...	...	10.58
Gayle	...	6.45	...
Goshen	...	...	...
Bio Hoe	St. Ann	6.52	11.49
Unity Valley	...	5.89	10.74
Moneague	...	5.65	...
Albion	...	8.35	8.07
Averham Park	...	11.86	...
Bradfield	...	10.22	10.91
Drax Hall	...	3.46	8.57
Seville	...	...	8.10
Llandoverly	...	...	8.47
Richmond Estate	...	3.36	7.14
Southfield	...	...	...
Means		5.29	8.44

NORTHERN DIVISION.		DECEMBER.	
		1889. | Average.	
		In.	In.
Home Castle	St. Ann	4.83	...
Richmond Pen	...	...	...
Colchis Pen	Trelawny	3.78	...
Mahogany Hall	...	6.17	3.76
Braco	...	2.21	7.20
Arcadia	...	3.64	...
Harmony Hall	...	3.08	7.24
Lancaster	...	1.95	7.57
Vale Royal	...	3.96	9.29
Hyde	...	4.29	8.08
Georgia	...	...	8.41
Steelfield	...	2.71	7.99
Oxford	...	2.90	...
Cambridge	...	3.17	6.01
Dry Valley	...	3.01	...
Lottery	...	2.86	5.83
Falmouth	...	9.50	...
Holland Pen	...	4.37	...
Golden Grove	...	3.00	5.83
Pembroke	...	...	5.26
Green Park	...	...	5.87
Phoenix	...	5.03	...
Tilston	...	2.45	5.67
Orange Valley	...	3.35	6.99
Kent	...	1.53	4.57
Dundee	...	3.75	6.46
Weston Favel	...	4.03	...
Gale's Valley	...	6.80	5.60
Greenwood	St. James	3.91	...
Bellfield	...	...	...
Gaillsbro'	...	3.52	...
Spring Vale	...	...	6.67
Cinnamon Hall	...	...	...

NORTHERN DIVISION, contd.		DECEMBER.	
		1889. | Average.	
		In.	In.
Rose Hall	St James	...	...
Running Gut	...	0.75	5.71
Leogan	...	2.01	...
Ironshore	...	1.89	3.18
Providence	...	...	...
Montego Bay (Market)	...	...	...
Catherine Hall	...	2.15	3.32
Catherine Mount	...	1.98	6.74
Fairfield	...	1.95	...
Means		3.06	6.13

WEST CENTRAL DIVISION.		DECEMBER.	
		1889. | Average.	
		In.	In.
Linstead	St Catherine	1.34	2.44
Cave Valley	St. Ann	1.35	2.75
Derry	...	...	...
Barton Isles	St. Elizabeth	...	...
Appleton	...	...	3.34
Windsor Pen	Trelawny	3.14	...
Maroon Town	St. James	3.56	...
Kepp	St. Elizabeth	1.06	2.98
Mount Edgecombe	Westmoreland	0.13	3.23
Windsor Forest	...	...	...
Woodstock	...	1.00	...
Struie	...	0.55	...
Kew Park	...	0.80	...
Chester Castle	Hanover	1.58	...
Copse	...	1.95	4.67
Houghton Grove	...	...	...
Kempshot	St. James	...	...
Anchovy	...	1.62	2.48
Wilshire	...	2.03	2.81
Eden	...	2.27	...
Round Hill	Hanover	...	1.96
Cacoon Castle	...	2.45	6.76
Golden Grove	...	1.85	2.98
Great Valley Pen.	...	3.20	...
Elint River	...	2.07	...
Tryall	...	2.15	2.08
Sweet River	Westmoreland	...	...
Mackfield	...	...	...
Windsor (Sav.-la-Mar)	...	0.32	2.27
Kew	Hanover	...	...
Three Mile River	Westmoreland	...	...
George's Plain Estate	...	...	...
Fontabelle	...	...	...
Belle Isle	...	0.30	...
King's Valley	...	...	...
Houghton Court	Hanover	...	...
Orange Cove	...	5.72	4.06
Abingdon	...	...	...
Means		1.83	3.29

SOUTHERN DIVISION.		DECEMBER.	
		1889. | Average.	
		In.	In.
Albion Hospital	St. Thomas	0.08	...
The Abbey	...	0.60	...
Halbertstadt	St. Andrew	0.70	...
Middleton	...	...	...
Woodford	...	6.71	...
Mona	...	...	...

SOUTHERN DIVISION, contd.

		DECEMBER.	
		1889	Average.
		In.	In.
Hope Plantation	St. Andrew	0.88	...
Hope Reservoirs	...	...	...
Cherry Garden	...	2.23	...
Constant Spring	...	1.76	...
Shortwood	...	...	...
Camperdown	...	1.12	...
King's House	...	...	0.37
Monaltrie	...	0.21	2.37
Public Works Office,	Kingston	0.01	2.33
Franklyn Town	...	...	...
Elletson Road	...	0.01	...
Plumb Point L. H.	...	0.00	1.57
Spanish Town	St. Catherine	0.45	1.66
Windsor Park	...	...	...
Hog Hole Pen	...	0.66	2.00
Headworks, R. C. C.	...	0.50	1.76
Old Harbour	...	0.40	...
Springfield, Clarendon	...	...	...
Farm Plantation	Manchester	0.00	2.46
Stone's Hope	...	...	...
Brokenhurst Pen	...	...	...
Pepper	St. Elizabeth	...	1.90
Long Hill	...	0.34	3.40
Potsdam	...	1.80	...
Gilnock Hall	...	...	...
Santa Cruz Poor-house	...	1.00	...
Black River	...	...	2.29
Bloomsbury	...	1.13	...
Means		0.27	2.19

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered no rain.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

		DECEMBER.	
		1889.	Average.
		In.	In.
North Eastern Division		5.29	8.44
Northern		3.06	6.13

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, and detailed statements of the Island rainfall not yet published; the figures for 1889, are of course only approximate. Further details will be given in the next Weather Report, but it may be here pointed out how closely the mean total Island Rainfall for the decade 1880-89 has approached that for the decade 1870-79, the respective figures being 67.41 inches and 66.17 inches.

ISLAND RAINFALL FROM 1870 TO 1889.

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	9.99	4.34	3.10	2.79	17.38	3.58	4.32	5.72	8.05	16.74	12.50	6.00	89.41
1871	2.40	1.60	2.29	3.46	6.43	1.98	3.70	3.46	5.70	8.88	5.88	4.22	50.09
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	63.09
1874	3.44	2.20	0.81	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	6.00	0.96	1.63	4.68	8.24	5.40	8.15	5.06	5.19	11.36	8.98	5.72	71.55
1877	5.24	1.18	5.38	2.91	15.03	6.50	4.68	1.76	5.01	4.50	7.63	7.88	63.46
1878	6.35	2.80	2.78	0.70	4.88	6.63	5.85	10.80	7.43	11.29	7.32	9.61	76.42
1879	2.81	5.90	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	2.33	3.34	3.25	9.05	4.74	4.31	6.66	6.85	10.07	6.71	5.69	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	55.44
1881	1.32	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	3.78	8.96	5.36	3.85	57.57
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	59.28
1884	4.72	3.44	2.51	1.85	6.72	6.89	2.52	5.06	6.23	9.52	5.00	2.14	56.90
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	5.90	24.46	6.22	13.54	5.90	7.38	3.70	5.66	91.71
1887	6.02	2.32	2.38	4.47	9.32	8.89	7.19	6.91	5.78	8.48	8.17	0.75	70.66
1888	1.36	1.89	1.70	3.62	21.24	0.27	2.65	6.47	8.10	4.38	4.59	10.35	72.11
1889	4.42	0.82	4.38	5.76	7.20	11.39	5.60	4.62	8.29	9.70	4.46	2.61	69.25
Means.	3.75	2.50	2.51	4.09	9.01	7.72	4.27	6.78	6.88	7.96	5.09	5.58	66.17

West Central Division	In.	In.
Southern	1.83	3.29
"	0.27	2.19
The Island	2.61	5.01

The largest fall namely, 11.86 inches, was recorded at Averham Park in St. Ann, and no rain fell at Plumb Point Light House and at Farm Plantation in Manchester. The rainfall for the month was only half the average.

Northers were felt in Kingston on the 6th and 23rd but prevailed on the Northside of the Island for nearly the whole of the month.

The following Table gives the Island Rainfall actually recorded in 1889, as compared with the average Annual Rainfall :-

		ISLAND RAINFALL.	
		Rainfall recorded	Average Rainfall.
		In.	In.
1889—January		4.42	4.32
February		0.82	2.60
March		4.38	3.24
April		5.76	3.76
May		7.20	8.64
June		11.39	5.53
July		5.60	4.50
August		4.62	6.84
September		8.29	7.02
October		9.70	8.95
November		4.46	6.00
December		2.61	5.16
The Year		69.25	66.56

The average Rainfall for the whole Island for the year 1889 was thus about the average, the chief departure from the average fall being in June, in which month there was twice the usual Rainfall.

KINGSTON, JAMAICA—MEAN RESULTS FOR THE YEAR 1889.—ELEVATION 80 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.		
January	80.017	29.862	70.2	84.9	88.5	68.6	19.9	65.5	70.7	0.828	0.781	85	64
February	80.068	29.991	70.1	85.2	89.1	67.1	22.0	64.7	71.5	0.811	0.772	83	64
March	29.986	29.921	72.7	85.4	88.6	68.7	19.9	67.6	71.0	0.675	0.759	84	62
April	29.982	29.917	77.8	85.9	89.0	73.9	16.1	70.0	72.6	0.733	0.807	77	65
May	29.989	29.852	79.2	86.5	90.4	74.6	15.8	71.3	73.4	0.766	0.823	77	65
June	80.007	29.971	78.4	85.3	88.4	74.7	13.7	73.0	75.6	0.812	0.885	84	73
July	80.022	29.974	77.8	87.2	90.0	73.9	16.1	72.6	74.7	0.801	0.860	82	71
August	80.018	29.972	77.9	86.5	91.1	72.1	19.0	70.3	78.5	0.741	0.826	78	65
September	29.960	29.900	77.8	84.8	90.5	72.7	17.8	73.0	74.9	0.812	0.866	85	72
October	29.969	29.904	76.2	84.5	89.7	71.2	18.5	70.6	73.1	0.749	0.816	83	69
November	29.998	29.929	73.8	85.3	89.9	69.7	20.2	68.3	70.9	0.692	0.766	83	62
December	80.023	29.954	68.6	85.6	89.1	65.0	24.1	64.4	66.9	0.605	0.659	87	54
Means.	29.999	29.943	75.0	85.5	89.5	70.9	18.6	69.8	72.4	0.719	0.796	82	66

The barometric pressure is the reading of the barometer corrected for instrumental 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	20	42	S.E.	57.7	92.1	24	84.8	27	27.3	1.70	Fine Norther on 29th.
February	6	36	S.E.	59.3	92.2	9	82.6	8	29.6	0.45	Fine.
March	34	46	S.E.	78.3	92.5	29	60.0	2	32.5	5.43	Fair.
April	56	67	S.E.	82.4	92.9	26	69.6	23	23.3	0.91	Fair Norther on 28th.
May	45	74	S.E.	47.3	93.8	11	71.4	7	22.4	1.47	Fair.
June	77	79	S.E.	111.6	94.1	7	70.9	20	23.2	12.18	Cloudy—seasons about middle of
July	50	69	S.E.	111.4	94.3	28	71.9	8	22.4	0.85	Fair. [month]
August	54	74	S.E.	103.5	93.5	4	69.3	10	24.2	2.02	Fair.
September	51	80	Var.	64.4	93.4	29	68.2	24	25.2	4.55	Fair, passing Cyclones on 15th.
October	63	83	Var.	56.5	93.8	8	67.8	5	26.0	4.20	Cloudy.
November	49	69	S.E.	50.8	92.2	4	66.5	27	25.7	0.19	Fair.
December	23	34	S.	21.4	92.6	12	60.4	29	32.2	0.01	Fine, Norther on 6th and 23rd.
Total.	44	63	S.E.	70.4	93.1		66.9		26.2	33.96	

ROBT. JOHNSTON,
Kingston, 28th January, 1889.