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METEOROLOGICAL RETURN FOR JANUARY, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.	29·891 inches.
		3 P.M.	29·849 ,,
Temperature	—Maximum (mean)		84°·4 Fah.
,,	—Minimum (mean)		68°·1 Fah.
,,	—Maximum (extreme) registered on 10th day		91°·5 Fah.
,,	—Minimum (extreme) registered on 19th day		62°· Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 19th and 26th days		155°· Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, registered 19th day		61°·9 Fah.
,,	—Mean temperature for the month		76°·2 Fah.
,,	—Range of Temperature for month		29°·5 Fah.
,,	—Dew point (7 A.M.) ... 69°·0	140°·9 ÷ 2 = 70°·4	average for month.
,,	— ,, (3 P.M.) ... 71°·9		
Tension of Vapour	(7 A.M.) ... ·708	1·731 ÷ 2 = ·865	,, ,,
,, ,,	(3 P.M.) ... 1·023		
Humidity	(7 A.M.) ... 96·0	189·0 ÷ 2 = 94·0	,, ,,
,,	(3 P.M.) ... 93·0		

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean)	... ...
,,	—Minimum (mean)	... ...
,,	—Extreme maximum in shade	... ...
,,	—Extreme minimum in shade	... ...
,,	—Mean temperature for the month	... ...
,,	—Range of temperature for the month	...
,,	—Dew point 7 A.M.	... ...
,,	— ,, 3 P.M.	... ...
Tension of Vapour	7 A.M.	... ...
,, ,,	3 P.M.	... ...
Humidity	7 A.M.	... ...
,,	3 P.M.	... ...

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U.S. Dept. of Commerce

Health of Port-of-Spain, January, 1888. *Taken from a Return published by the Registrar-General shewing number of deaths from a few groups of diseases.**

Dentition and infantile diseases	... 7	
Lung diseases	... 35	
Heart disease	... 3	
Debility	... 14	
Dysentery and diarrhœa ...	... 37	
Fevers ...	... 10	
Various other diseases—1 to 5 deaths in ea...	20	
Undescribed ...	... 28	
Total		154
Deaths in Hospital from out Districts	...	23
Actual No. of Deaths of Residents in Port-of-Spain		131
Total No. of deaths in Hospital	...	67

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

National Oceanic and Atmospheric Administration

Climate Database Modernization Program

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March 28, 2002

RAINFALL FOR MONTH OF JANUARY, 188~~6~~7.

No. of Station.	Station.	Inches.	Average for Month Jan.	Length of Average.	Observer.	Diameter of Guage.
				Yrs.		In.
3	St. Anne's—Botanic Gardens ...	8·37	2·61	25	Superintendent ...	8
4	St. Joseph—Warden's Office ...	4·47	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	5·17	...	...	Police ...	5
6	Tunapuna Village	3·89	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	3·87	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	8·45	...	...	Charles Sanguinetti..	5
7	Arima	4·80	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	8·07	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	8·20	...	...	Police ...	5
14	Couva—Exchange Village ...	2·85	...	...	John P. Telfer ...	5
15	Couva—Police Station	3·40	...	...	Police ...	5
20	Montserrat—El Corozal ...	...	...	...	D. Bryce ...	5
19	Montserrat—Tortuga Estate ...	5·84	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	4·77	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	5·27	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	6·55	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...	Arthur Newsam ...	5
27	Cedros—Police Station	8·73	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	10·61	...	...	Colonial Company ...	...
2	Tucker Valley	10·54	...	...	Albert Gomez ...	5
21	Princes Town—Malgretout ...	6·06	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	6·52	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	5·74	...	...	A Macintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	1·74	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	3·46	...	...	Police ...	5
12	Chaguanas—Police Station ...	4·47	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	3·57	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	...	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield (P.S) ...	6·50	...	...		...
8	Tumpuna—Police Station ...	6·40	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	8·93	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	8·82	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	6·03	...	...	Police ...	8
30	Moruga Road—Rest House ...	7·71	...	...	Police ...	8
23	Gasparil— Preventive Station ...	6·44	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	4·17	...	...	Managers of Estates of Colonial Company. ...	...
34	Naparima—Harmony Hall Est. (H.H.)	4·84	...	...	...	...
35	Naparima—Tarouba Estate (T.B.) ...	5·15	...	...	...	...
36	Naparima—Williamsville Est. (W.V.)	6·73	...	...	...	...
37	Naparima—Concord Estate (C.C.) ...	6·10	...	...	...	...
38	Naparima—Union Hall Estate (N.)...	8·50	...	...	...	...
39	Naparima—Petit Morne Estate (P.M.)	6·54	...	...	...	...
40	Naparima—Golconda Estate (G.C.) ...	7·16	...	...	...	...
41	Naparima—Cedar Hill Estate (C.H.)...	6·50	...	...	...	...
42	Naparima—St. Mad'lne Usine (U.S.M.)	7·20	...	...	...	...
59	Naparima—Plein Palais (P.P.) ...	3·66	...	...	...	...
45	Naparima—Friendship Estate (F.C.C.)	...	...	...	J. Rowbottom ...	8
56	Naparima—Craignish Estate ...	6·30	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	4·01	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	5·31	...	...	J. C. Lewis ...	8
49	Arouca—Garden Estate ...	4·44	...	...	J. S. Greenidge ...	8
51	Maraval—Police Station ...	11·59	...	...	Police ...	8
52	Port-of-Spain—Police Station ...	5·57	...	...	Police ...	8
53	Diego Martin—Police Station ...	12·12	...	...	Police ...	8
54	Maracas Bay	16·63	...	...	C. de Verteuil ...	8
55	Maraccas	...	...	...	F. A. Alexis ...	8
57	Blanchisseuse	15·35	...	...	Police ...	8
58	Cap-de-Ville	5·73	...	...	Police ...	8
62	Valencia	...	...	...	F. Wallan ...	8
63	La Brea	...	...	...	T. W. McCarthy ...	8
64	Royal Gaol	6·82	...	...	O. Harley ...	8
65	Carapichaima	3·97	...	...	J. Fogg ...	8
66	Nariva	8·90	...	...	R. Edwin Legge ...	8

Average Rainfall	6·60	For the whole Island for month.
25 Years' average for January ...	2·61	As recorded at Royal Botanic Gardens.
Above average ...	4·09	

OBSERVATIONS.

The month of January produced a very unevenly distributed Rainfall 16·63, 15·35, 12·12, 11·59 inches were registered at Maracas Bay, Blanchisseuse, Diego Martin and Maraval respectively, while 1·74, 3·57, 3·66, and 2·85 inches were registered at the following Stations taken in their respective order: Mayaro, Chaguanas, Plein Palais, Naparima and Exchange Village, Couva.

The total fall for the month for the whole Island is nearly 200 per cent. above the average recorded fall at the Botanic Gardens for the past 25 years. A fall of 11·72 inches was, however, recorded at the Gardens during January, 1880, and in 1871 the present record was exceeded by $\frac{2}{100}$ths of an inch only.

The month is remarkable in consequence of the occurence of a severe shock of earthquake on the morning of the 10th day at 8·55, a.m., having a duration of about 40 seconds. It is generally considered that no shock of like strength has been felt for a number of years. It occasioned great alarm, and a number of buildings suffered by having their walls cracked in many directions. The plaster in many houses fell in large quantities, but we do not hear that anything more serious occurred. The centre of the disturbance was evidently very near the Island of Grenada or between Grenada and Barbados judging from the telegraphic report of the time of its occurrence A minor shock was also felt the same day at 10.10 p.m., and on the 15th also two shocks were felt, one at 10.30 a.m., and another at 7.45 p.m. On the 27th another slight shock occurred at 4.45 a.m. Several other slight tremours were also reported.

Some observers having omitted to send in the total Rainfall for 1887, it is requested that they will kindly do so on the next return, also any falls for previous years they may have in possession.

The number of deaths in Port-of-Spain shews a considerable increase over the average for the previous six months. The number under the head of Lung diseases being very high.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office:—

"The guage should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one* "*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The guage should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "guage been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Guages will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office. A supply has lately been received.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

* In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should obeervers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the guage, but bracket the record for those days.

METEOROLOGICAL RETURN FOR FEBRUARY, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.—29·872 inches. 3 P.M.—29·819 ,,	
Temperature	—Maximum (mean)		85°·6 Fah.
,,	—Minimum (mean)		66°·9 Fah.
,,	—Maximum (extreme) registered on 15th day		89°· Fah.
,,	—Minimum (extreme) registered on 7th and 10th day ...		64°· Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 19th and 26th days		154°· Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, registered 19th day		62°·1 Fah.
,,	—Mean temperature for the month		76°·2 Fah.
,,	—Range of Temperature for month		25°·0 Fah.
,,	—Dew point (7 A.M.) ... 67°·8	138°·4 ÷ 2 = 69°·2 average for month.	
,,	— ,, (3 P.M.) ... 70°·6		
Tension of Vapour	(7 A.M.) ... ·684	1·611 ÷ 2 = ·805 ,, ,,	
,, ,,	(3 P.M.) ... ·927		
Humidity	(7 A.M.) ... 93·0	175·0 ÷ 2 = 87·0 ,, ,,	
,,	(3 P.M.) ... 82·0		

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean)	(No record.)
,,	—Minimum (mean)	
,,	—Extreme maximum in shade	
,,	—Extreme minimum in shade	
,,	—Mean temperature for the month	
,,	—Range of temperature for the month ...	
,,	—Dew point 7 A.M.	
,,	— ,, 3 P.M.	
Tension of Vapour	7 A.M.	
,, ,,	3 P.M.	
Humidity	7 A.M.	
,,	3 P.M.	

Health of Port-of-Spain, February, 1888. *Taken from a Return published by the Registrar-General shewing number of deaths from a few groups of diseases.**

Dentition and infantile diseases ...	10	
Lung diseases	19	
Heart disease	2	
Debility	9	
Dysentery and diarrhœa	56	
Fevers	9	
Various other diseases—1 to 6 deaths in ea...	21	
Undescribed	23	
Total	——	149
Deaths in Hospital from out Districts ...		16
Actual No. of Deaths of Residents in Port-of-Spain		133
Total No. of deaths in Hospital ...		46

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF FEBRUARY, 1887.

No. of Station.	Station.	Inches.	Average for Month Feb.	Length of Average.	Observer.	Diameter of Guage.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	1·79	1·81	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	·66	...	...	Police ...	8
64	Royal Gaol	1·05	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	·46	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	·72	...	...	Police ...	5
6	Tunapuna Village	·78	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	2·06	...	...	Jas. S. Greenidge ...	8
49	Arouca—Garden Estate ...	1·34	...	...	J. S. Greenidge ...	5
9	Cumuto—Santa Teresa ...	2·42	...	...	Charles Sanguinetti..	5
7	Arima	1·66	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	2·39	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	2·90	...	...	Police ...	5
14	Couva—Exchange Village ...	1·12	...	...	John P. Telfer ...	5
15	Couva—Police Station	1·33	...	...	Police ...	5
20	Montserrat—El Corozal ...	...	...	...	D. Bryce ...	5
19	Montserrat—Tortuga Estate ...	2·87	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	2·45	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	...	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	2·40	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...	Arthur Newsam ...	5
27	Cedros—Police Station	2·09	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	...	...	...	Colonial Company ...	...
2	Tucker Valley	1·76	...	...	Albert Gomez ...	5
21	Princes Town—Malgretout ...	2·08	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	2·11	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	...	...	...	A. Macintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	...	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	1·21	...	...	Police ...	5
12	Chaguanas—Police Station ...	1·61	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	...	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	...	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield ($\frac{PS}{P}$) ...	...	...	...		...
8	Tumpuna—Police Station ...	2·16	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	4·55	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	2·60	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	1·82	...	...	Police ...	8
30	Moruga Road—Rest House ...	1·82	...	...	Police ...	8
23	Gasparil— Preventive Station ...	1·00	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	...	...	...	...	...
34	Naparima—Harmony Hall Est. (H.H.)	...	...	...	...	...
35	Naparima—Tarouba Estate (T.B.) ...	2·70	...	...	S. A. Rawlin ...	...
36	Naparima—Williamsville Est. (W.V.)	...	...	...	...	...
37	Naparima—Concord Estate (C.C.) ...	1·41	...	...	L. A. de Verteuil ...	...
38	Naparima—Union Hall Estate (N.)...	...	...	...	...	...
39	Naparima—Petit Morne Estate (P.M.)	2·02	...	...	D. J. Colly ...	...
40	Naparima—Golconda Estate (G.C.) ...	2·19	...	...	E. F. Stone ...	...
41	Naparima—Cedar Hill Estate (C.H.)...	...	...	...	...	...
42	Naparima—St. Mad'lne Usine (U.S.M.)	...	...	...	...	...
59	Naparima—Plein Palais (P.P.) ...	...	...	...	...	...
45	Naparima—Friendship Estate (F.C.C.)	1·83	...	...	J. Rowbottom ...	8
56	Naparima—Craignish Estate ...	...	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	2·91	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	3·56	...	...	J. C. Lewis ...	8
51	Maraval—Police Station ...	2·93	...	...	Police ...	8
53	Diego Martin—Police Station ...	2·83	...	...	Police ...	8
54	Maracas Bay	5·37	...	...	C. de Verteuil ...	8
55	Maraccas—Govt. School ...	3·68	...	...	F. A. Alexis ...	8
57	Blanchisseuse	4·40	...	...	Police ...	8
58	Cap-de-Ville	4·08	...	...	Police ...	8
62	Valencia	1·92	...	...	F. Wallan ...	8
63	La Brea	2·99	...	...	J. W. McCarthy ...	8
65	Carapichaima	2·29	...	...	J. Fogg ...	8
66	Nariva	...	...	...	R. Edwin Legge ...	8

RAINFALL FOR MONTH OF FEBRUARY, 1887.—CONTINUED.

No. of Station.	Station.	Inches.	Average for Month Feb.	Length of Average.	Observer.	Diameter of Guage.
				Yrs.		In.
68	Manzanilla—Police Station ...	1·89	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	2·13	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	5 61	...	...	Police ...	8

Average Rainfall	2·29	For the whole Island for month.
25 Years' average for February ...	1·81	As recorded at Royal Botanic Gardens.

OBSERVATIONS.

A slight shock of earthquake occurred on the 14th.

As will be seen the rainfall has been very evenly distributed for February, most of the stations being above the average of the Botanic Gardens, the Gardens record being within $\frac{3}{100}$ths of the average calculated on the past 25 years.

The north side of the Island at Maraccas Bay and Blanchisseuse, and the South Western Stations had the heaviest falls, being nearly twice that of most of the Stations.

The health record again shews striking results, for while deaths from lung diseases have decreased at nearly 100 per centum, the deaths from Dysentery and Diarrhœa have increased almost in like measure.

The sudden change of climate from January with Humidity of 94·00 to February with Humidity of 87·00 and the range of temperature for January which was 29·5°, and for February only 25°, demands careful attention when considering the effect of the weather upon the death rate.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office:—

"The guage should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one* "*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The guage should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "guage been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Guages will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

* In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the guage, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.

METEOROLOGICAL RETURN FOR MARCH, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.	29·883 inches.
		3 P.M.	29·827 ,,
Temperature	—Maximum (mean)		86°·9 Fah.
,,	—Minimum (mean)		67°·8 Fah.
,,	—Maximum (extreme) registered on 18th day		90°· Fah.
,,	—Minimum (extreme) registered on 17th day		63°· Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 27th day		155°·5 Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, registered 17th day		60°·1 Fah.
,,	—Mean temperature for the month		77°·3 Fah.
,,	—Range of Temperature for month		27°·0 Fah.
,,	—Dew point (7 A.M.)	69°·9	139°·6 ÷ 2 = 69°·8 average for month.
,,	— ,, (3 P.M.)	69°·7	
Tension of Vapour	(7 A.M.)	·733	1·458 ÷ 2 = ·729 ,, ,,
,, ,,	(3 P.M.)	·725	
Humidity	(7 A.M.)	93·0	155·0 ÷ 2 = 77·0 ,, ,,
,,	(3 P.M.)	62·0	

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean)	(No record.)
,,	—Minimum (mean)	
,,	—Extreme maximum in shade	
,,	—Extreme minimum in shade	
,,	—Mean temperature for the month	
,,	—Range of temperature for the month	
,,	—Dew point 7 A.M.	
,,	— ,, 3 P.M.	
Tension of Vapour	7 A.M.	
,, ,,	3 P.M.	
Humidity	7 A.M.	
,,	3 P.M.	

Health of Port-of-Spain, March, 1888. *Taken from a Return published by the Registrar-General shewing number of deaths from a few groups of diseases.**

Dentition or infantile diseases	5	
Lung diseases	29	
Heart disease	2	
Debility	6	
Dysentery and diarrhœa	37	
Fevers	7	
Various other diseases—1 to 6 deaths in ea	21	
Undescribed	15	
Total		122
Deaths in Hospital from out Districts		17
Actual No. of Deaths of Residents in Port-of-Spain		105
Total No. of deaths in Hospital		44

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF MARCH, 1888.

No. of Station.	Station.	Inches.	Average for Month Mch.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	2·41	1·84	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	·70	...	...	Police ...	8
64	Royal Gaol	1·43	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	·75	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	1·37	...	...	Police ...	5
6	Tunapuna Village	1·14	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	2·30	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	4·99	...	...	Charles Sanguinetti..	5
49	Arima—Garden Estate ...	3·94	...	...	J. S. Greenidge ...	5
7	Arima	3·14	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	3·24	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	3·48	...	...	Police ...	5
14	Couva—Exchange Village ...	·95	...	...	John P. Telfer ...	5
15	Couva—Police Station	1·35	...	...	Police ...	5
20	Montserrat—El Corozal ...	...	...	...	D. Bryce ...	5
19	Montserrat—Tortuga Estate ...	2·08	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	2·08	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	1·49	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	1·82	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...	Arthur Newsam ...	5
27	Cedros—Police Station	2·90	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	2·78	3·18	11	Colonial Company ...	...
72	St. Marie Estate—Cedros ...	3·57	...	...	J. C. Dickson ...	...
73	La Retrait Estate—Cedros ...	6·82	...	...	H. Lachappell ...	...
2	Tucker Valley	·62	...	...	Albert Gomez ...	5
21	Princes Town—Malgretout ...	2·85	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	2·51	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	3·05	...	...	A. Macintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	...	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	2·32	...	...	Police ...	5
12	Chaguanas—Police Station ...	2·40	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	...	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	...	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield ($\frac{PS}{P}$) ...	1·10	...	...		...
8	Tumpuna—Police Station ...	3·60	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	2·62	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	2·98	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	2·87	...	...	Police ...	8
30	Moruga Road—Rest House ...	3·40	...	...	Police ...	8
23	Gasparil—Preventive Station ...	1·51	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	1·01	1·98	11		... ...
34	Naparima—Harmony Hall Est. (H.H.)	2·03	1·94	,,		... ...
35	Naparima—Tarouba Estate (T.B.) ...	2·05	1·85	,,	S. A. Rawlin	... ...
36	Naparima—Williamsville Est. (W.V.)	2·12	2·13	,,		... ...
37	Naparima—Concord Estate (C.C.) ...	1·64	1·92	,,	L. A. de Verteuil	... ...
38	Naparima—Union Hall Estate (N.)...	2·59	2·09	,,		... ...
39	Naparima—Petit Morne Estate (P.M.)	1·70	2·14	,,	D. J. Colly	... ...
40	Naparima—Golconda Estate (G.C.) ...	2·13	1·82	,,	E. F. Stone	... ...
41	Naparima—Cedar Hill Estate (C.H.)...	2·66	1·58	,,		... ...
42	Naparima—St. Mad'lne Usine (U.S.M.)	2·68	2·06	,,		... ...
59	Naparima—Plein Palais (P.P.) ...	2·43	2·65	,,		... ...
45	Naparima—Friendship Estate (F.C.C.)	...	...	...	J. Rowbottom	... 8
56	Naparima—Craignish Estate ...	...	...	...	Geo. Liddelow	... ...
17	San Fernando—Ellerslie House ...	2·01	...	...	James Drennan	... 5
47	San Fernando—Lewisville ...	2·58	...	...	J. C. Lewis	... 8
61	Maraval—Police Station ...	3·30	...	....	Police	... 8
53	Diego Martin—Police Station ...	2·77	...	...	Police	... 8
54	Maracas Bay	5·28	...	...	C. de Verteuil	... 8
55	Maraccas—Govt. School ...	2·43	...	...	F. A. Alexis	... 8
57	Blanchisseuse	5·39	...	...	Police	... 8
58	Cap-de-Ville	6·88	...	...	Police	... 8
62	Valencia	5·24	...	...	F. Wallan	... 8
63	La Brea	1·91	...	...	J. W. McCarthy	... 8

RAINFALL FOR MONTH OF MARCH, 1888.—CONTINUED.

No. of Station.	Station.	Inches.	Average for Month Mch.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
65	Carapichaima	2·32	...	...	J. Fogg ...	8
66	Nariva—The Cocal	5·20	...	...	R. Edwin Legge ...	8
68	Manzanilla—Police Station ...	3·93	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	2·06	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	2·43	...	...	Police ...	8
69	Brechin Castle	1·64	...	...	F. J. S. Rawle ...	...
70	Rivulet Estate	1·36	...	...	Gordon Frestrail ...	...
71	St. Helena Estate	3·73	...	...	...	...
74	La Plaisance Estate	1·60	...	...	...	...

Average Rainfall	2·64	For the whole Island for month.
25 Years' average for March ...	1·84	As recorded at Royal Botanic Gardens.

OBSERVATIONS.

The Island average for the month of March was, last year, 2·14 inches. The average rainfall at the Botanic Gardens for the past 25 years for this month is 1·84 inches only. The rainfall for the month therefore, is above both averages, but as the Island rainfall for last year could only be computed from the stations of observation then in existence (15) while the average for the present month is computed from 65 stations, there must be some allowance made when comparing them.

The highest falls for the month are those observed at La Retrait Estate, Cedros—6·82, and Cap-de-Ville—6·88 inches.

Stations on the North Coast shew a high rainfall while Stations along the Gulf show the lowest records.

The health rate of Port-of-Spain shews a large diminution in the number of deaths from Dysentery and Diarrhœa.

The range of Temperature for the month is greater than for February, by 2°, while the average Humidity is 10° less.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office :—

"The gauge should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one* "*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The gauge should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "gauge been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10*th* of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Gauges will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

* In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the gauge, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.

METEOROLOGICAL RETURN FOR APRIL, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.	29·853 inches.
		3 P.M.	29·802 ,,
Temperature	—Maximum (mean)		87°·8 Fah.
,,	—Minimum (mean)		69°·8 Fah.
,,	—Maximum (extreme) registered on 30th day		92°· Fah.
,,	—Minimum (extreme) registered on 30th day		67°· Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 26th day		162°· Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, registered 18th day		63°· Fah.
,,	—Mean temperature for the month		78°·8 Fah.
,,	—Range of Temperature for month		25°· Fah.
,,	—Dew point (7 A.M.)	70°·7	1402 ÷ 2 = 70°·1 for month.
,,	— ,, (3 P.M.)	69°·5	
Tension of Vapour	(7 A.M.)	·759	1467 ÷ 2 = ·733 ,,
,, ,,	(3 P.M.)	·708	
Humidity	(7 A.M.)	87·4	146°·2 ÷ 2 = 77·1 ,,
,,	(3 P.M.)	58·8	

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean)	(No record.)
,,	—Minimum (mean)	
,,	—Extreme maximum in shade	
,,	—Extreme minimum in shade	
,,	—Mean temperature for the month	
,,	—Range of temperature for the month	
,,	—Dew point 7 A.M.	
,,	— ,, 3 P.M.	
Tension of Vapour	7 A.M.	
,, ,,	3 P.M.	
Humidity	7 A.M.	
,,	3 P.M.	

Health of Port-of-Spain, April, 1888. *Taken from a Return published by the Registrar-General shewing number of deaths from a few groups of diseases.**

Dentition or infantile diseases	7	
Lung diseases	13	
Heart disease	3	
Debility	6	
Dysentery and diarrhœa	17	
Fevers	10	
Various other diseases—1 to 6 deaths in ea	23	
Undescribed	21	
Total		100
Deaths in Hospital from out Districts		15
Actual No. of Deaths of Residents in Port-of-Spain		85
Total No. of deaths in Hospital		41

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF APRIL, 1888.

No. of Station.	Station.	Inches.	Average for Month Aprl.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	2·28	1·90	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	2·27	...	...	Police ...	8
64	Royal Gaol	2·53	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	1·30	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	2·95	...	...	Police ...	5
6	Tunapuna Village	2·52	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	2·96	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	7·02	...	...	Charles Sanguinetti..	5
49	Arima—Garden Estate ...	4·52	...	...	J. S. Greenidge ...	5
7	Arima	4·65	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	2·90	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	4·85	...	...	Police ...	5
14	Couva—Exchange Village ...	2·87	...	...	John P. Telfer ...	5
15	Couva—Police Station	3·37	...	...	Police ...	5
19	Montserrat—Tortuga Estate ...	5·48	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	5·85	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	...	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	2·82	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...		5
27	Cedros—Police Station	3·75	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	4·90	...	...	Colonial Company ...	...
72	St. Marie Estate—Cedros ...	3·64	...	...	J. C. Dickson ...	...
73	La Retrait Estate—Cedros ...	5·19	...	...	H. Lachappell ...	...
2	Tucker Valley	3·92	...	...	Albert Gomez ...	5
21	Princes Town—Malgretout ...	5·83	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	6·29	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	4·94	...	...	A Macintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	...	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	2·64	...	...	Police ...	5
12	Chaguanas—Police Station ...	4·05	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	...	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	...	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield (P.S.) ...	3·54	...	...		...
8	Tumpuna—Police Station ...	7·44	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	3·71	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	4·98	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	4·15	...	...	Police ...	8
30	Moruga Road—Rest House ...	5·86	...	...	Police ...	8
23	Gasparil— Preventive Station ...	2·50	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	2·99	...	...		...	...
34	Naparima—Harmony Hall Est. (H.H.)	4·22	...	...		...	...
35	Naparima—Tarouba Estate (T.B.) ...	4·11	...	...	S. A. Rawlin ...	...
36	Naparima—Williamsville Est. (W.V.)	6·70	...	...		...	...
37	Naparima—Concord Estate (C.C.) ...	2·99	...	...	L. A. de Verteuil ...	...
38	Naparima—Union Hall Estate (N.)...	2·15	...	...		...	...
39	Naparima—Petit Morne Estate (P.M.)	3·61	...	...	D. J. Colly ...	...
40	Naparima—Golconda Estate (G.C.) ...	3·45	...	...	E. F. Stone ...	...
41	Naparima—Cedar Hill Estate (C.H.)...	5·29	...	...		...	...
42	Naparima—St. Mad'lne Usine (U.S.M.)	5·44	...	...		...	...
59	Naparima—Plein Palais (P.P.) ...	3·46	...	...		...	...
45	Naparima—Friendship Estate (F.C.C.)	2·91	...	...	J. Rowbottom ...	8
56	Naparima—Craignish Estate ...	...	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	4·09	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	4·29	...	...	J. C. Lewis ...	8
75	Maraval ...	5·47	...	...	Jno. Gibbings ...	8
51	Maraval—Police Station ...	4·16	...	...	Police ...	8
53	Diego Martin—Police Station ...	4·37	...	...	Police ...	8
54	Maracas Bay	5·52	...	...	C. de Verteuil ...	8
55	Maraccas—Govt. School ...	2·84	...	...	F. A. Alexis ...	8
57	Blanchisseuse	...	...	...	Police ...	8
58	Cap-de-Ville	...	...	...	Police ...	8
62	Valencia	8·56	...	...	F. Wallan ...	8
63	La Brea	4·05	...	...	J. W. McCarthy ...	8

RAINFALL FOR MONTH OF APRIL, 1888.— CONTINUED.

No. of Station.	Station.	Inches.	Average for Month Aprl.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
65	Carapichaima	4·02	...	...	J. Fogg ...	8
66	Nariva—The Cocal	...	...	...	R. Edwin Legge ...	8
68	Manzanilla—Police Station ...	7·58	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	3·36	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	4·07	...	...	Police ...	8
69	Brechin Castle	3·12	...	...	F. J. S. Rawle ...	...
70	Rivulet Estate	3·96	...	...	Gordon Frestrail ...	...
71	St. Helena Estate	5·98	...	...	...	...
74	La Plaisance Estate	...	...	...	...	...
76	Curepe	2·98	...	...	J. S. Wilson ...	...
77	McLeod Plain	2·06	...	...	do. ...	...
78	Caroni	3·45	...	...	do. ...	...

Average Rainfall	4·14	For the whole Island for month.
25 Years' average for April ...	1·90	As recorded at Royal Botanic Gardens.

OBSERVATIONS.

The Island average for the month of April, 1887, was 1·51 inches. The average rainfall for April, taking the 25 years' average at the Royal Botanic Gardens, is 1·90 inches.

The average for the present month (April, 1888), 4·14 inches, is therefore 2·63 above last year's rainfall, and 2·24 inches above the record for previous 25 years.

The heaviest falls for the month occurred at Valencia, Cumuto and Manzanilla, while the lowest fall registered was at St. Joseph.

The range of Temperature for the month was 2° less than for March, 1888, while the Humidity is almost identical.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office:—

"The gauge should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one "foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The gauge should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "gauge been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Gauges will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

* In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the gauge, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.

METEOROLOGICAL RETURN FOR MAY, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.—29·842 inches. 3 P.M.—29·796 ,,	
Temperature—	Maximum (mean)		85°·5 Fah.
,,	—Minimum (mean)		75°·6 Fah.
,,	—Maximum (extreme) registered on 6th, 7th, 9th & 10th days		92°· Fah.
,,	—Minimum (extreme) registered on 6th day		66°·5 Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 2nd day		165°· Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, regist'd on 4th, 5th, 6th, 7th, 10th & 11th days		65°· Fah.
,,	—Mean temperature for the month		80°·5 Fah.
,,	—Range of temperature for the month		25°·5 Fah.
,,	—Dew point (7 A.M.) ... 71°·2	140°·4 ÷ 2 = 70°·2 for month.	
,,	— ,, (3 P.M.) ... 69°·2		
Tension of Vapour	(7 A.M.) ... ·759	1467 ÷ 2 = ·733 ,,	
,, ,,	(3 P.M.) ... ·708		
Humidity	(7 A.M.) ... 87·4	146°·2 ÷ 2 = 73·1 ,,	
,,	(3 P.M.) ... 58·8		

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature—	Maximum (mean)	... 89°·1	
,,	—Minimum (mean)	... 73°·7	
,,	—Extreme maximum in shade	... 92°·	
,,	—Extreme minimum in shade	... 70°·	
,,	—Mean temperature for the month	... 81°·4	
,,	—Range of temperature for the month	22°·	
,,	—Dew point 7 A.M. ... 75°·3	150°·1 ÷ 2 = 75°·0 for month.	
,,	— ,, 3 P.M. ... 74°·8		
Tension of Vapour	7 A.M. ... ·868	1728 ÷ 2 = ·864 ,,	
,, ,,	3 P.M. ... ·860		
Humidity	7 A.M. ... 96·0	168°·0 ÷ 2 = 84·0 ,,	
,,	3 P.M. ... 72·0		

Health of Port-of-Spain, May, 1888. *Taken from a Return published by the Registrar-General, shewing number of deaths from a few groups of diseases.**

Dentition or infantile diseases	... 7	
Lung diseases	... 18	
Heart disease	... 0	
Debility	... 5	
Dysentery and diarrhœa ...	... 18	
Fevers ...	... 4	
Various other diseases—1 to 6 deaths in ea...	17	
Undescribed ...	... 18	
Total	——	87
Deaths in Hospital from out Districts ...		14
Actual No. of Deaths of Residents in Port-of-Spain		73
Total No. of deaths in Hospital ...		34

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF MAY, 1888.

No. of Station.	Station.	Inches.	Average for Month May.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	3·46	3·53	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	2·39	...	...	Police ...	8
64	Royal Gaol	3·21	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	4·00	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	3·65	...	...	Police ...	5
6	Tunapuna Village	7·55	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	5·08	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	8·98	...	...	Charles Sanguinetti..	5
49	Arima—Garden Estate ...	5·59	...	...	J. S. Greenidge ...	5
7	Arima	6·89	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	4·93	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	6·46	...	...	Police ...	5
14	Couva—Exchange Village ...	4·06	...	...	John P. Telfer ...	5
15	Couva—Police Station	4·11	...	...	Police ...	5
19	Montserrat—Tortuga Estate ...	6·06	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	6·48	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	...	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	4·24	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...		5
27	Cedros—Police Station	3·82	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	4·62	...	...	Colonial Company ...	...
72	St. Marie Estate—Cedros ...	4·15	...	...	J. C. Dickson ...	...
73	La Retrait Estate—Cedros ...	6·83	...	...	H. Lachapelle ...	...
2	Tucker Valley	9·87	...	...	Albert Gomez ...	5
21	Princes Town—Malgretoute ...	4·34	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	4·38	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	5·30	...	...	A Mackintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	...	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	3·49	...	...	Police ...	5
12	Chaguanas—Police Station ...	4·65	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	...	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	5·44	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield (DS PS) ...	4·25	...	...		...
8	Tumpuna—Police Station ...	6·57	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	7·33	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	7·03	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	10·03	...	...	Police ...	8
30	Moruga Road—Rest House ...	5·74	...	...	Police ...	8
23	Gasparil—Preventive Station ...	2·29	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	3·53	...	...		...
34	Naparima—Harmony Hall Est. (H.H.)	3·30	...	...		...
35	Naparima—Tarouba Estate (T.B.) ...	3·39	...	...	S. A. Rawlin ...	...
36	Naparima—Williamsville Est. (W.V.)	3·87	...	...		...
37	Naparima—Concord Estate (C.C.) ...	4·50	...	...	L. A. de Verteuil ...	...
38	Naparima—Union Hall Estate (U.) ...	3·86	...	...		...
39	Naparima—Petit Morne Estate (P.M.)	3·75	...	...	D. J. Colly ...	...
40	Naparima—Golconda Estate (G.C.) ...	4·83	...	...	E. F. Stone ...	...
41	Naparima—Cedar Hill Estate (C.H.)...	4·56	...	...		...
42	Naparima—St. Mad'lne Usine (U.S.M.)	3·28	...	...		...
59	Naparima—Plein Palais (P.P.) ...	4·31	...	...		...
45	Naparima—Friendship Estate (F.C.C.)	...	...	...	J. Rowbottom ...	8
56	Naparima—Craignish Estate ...	5·11	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	3·69	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	4·18	...	...	J. C. Lewis ...	8
75	Maraval—Val de Oro ...	3·16	...	...	Jno. Gibbings ...	8
51	Maraval—Police Station ...	3·12	...	...	Police ...	8
53	Diego Martin—Police Station ...	3·34	...	...	Police ...	8
54	Maracas Bay	4·51	...	...	C. de Verteuil ...	8
55	Maracas—Govt. School ...	3·67	...	...	S. A. Alexis ...	8
57	Blanchisseuse	...	...	...	Police ...	8
58	Cap-de-Ville	...	...	...	Police ...	8
62	Valencia	9·51	...	...	F. Wallan ...	8
63	La Brea	2·90	...	...	J. W. McCarthy ...	8

RAINFALL FOR MONTH OF MAY, 1888.—CONTINUED.

No. of Station.	Station.	Inches.	Average for Month May.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
65	Carapichaima	...	...	...	J. Fogg ...	8
66	Nariva—The Cocal	...	...	...	R. Edwin Legge ...	8
68	Manzanilla—Police Station ...	8·16	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	2·85	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	3·16	...	...	Police ...	8
69	Brechin Castle	4·56	...	...	F. J. S. Rawle ...	...
70	Rivulet Estate	5·42	...	...	Gordon Frestrail ...	...
71	St. Helena Estate	4·20	...	...	...	...
74	La Plaisance Estate	3·47	...	...	...	...
76	Curepe	3·75	...	...	J. S. Wilson ...	...
77	McLeod Plain	2·33	...	...	do. ...	...
78	Caroni	3·32	...	...	do. ...	...

Average Rainfall ...	4·77	For the whole Island for month.
25 Years' average for May ...	3·53	As recorded at Royal Botanic Gardens.
Above the average ...	1·24	

OBSERVATIONS.

The average rainfall for the month for all Stations was 4·77. This is above the average fall recorded for 25 years previous to 1886 at the Royal Botanic Gardens and ·89 above last year's for May.

The heaviest falls for the month occurred at Tumpuna 6·57, Cedros 6·83, Manzanilla 7·58, Cumuto 89·8, Valencia 9·51, Tucker Valley 9·87 and Moruga 10·03 inches. In the Naparima district the fall was evenly distributed, and moderate in quantity.

The range of Temperature was half a degree more than during April, but the figures for Dew Point, the Tension of Vapour and Humidity are almost identical with those of last month. The mean temperature for May, 1888, was 1°.7 Fah. above that of May, 1887.

Deaths from Dysentery and Diarrhœa show a slight increase, the rate for lung diseases shows a large increase, while the total exceeds by one only the rate for May 1887, the deaths in Hospital being exactly the same for 1887 and 1888.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office:—

"The gauge should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one* "*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The gauge should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "gauge been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Gauges will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

* In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the gauge, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.

METEOROLOGICAL RETURN FOR JUNE, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.—29·886 inches. 3 P.M.—29·843 ,,	
Temperature	—Maximum (mean)		87°·4 Fah.
,,	—Minimum (mean)		71°·1 Fah.
,,	—Maximum (extreme) registered on 14th, 15th, & 21st days ...		90°· Fah.
,,	—Minimum (extreme) registered on 14th day ...		68°· Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 17th day		160°· Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, regist'd on 1st 14th, & 15th days...		66°· Fah.
,,	—Mean temperature for the month		79°·25 Fah.
,,	—Range of temperature for the month		22°· Fah.
,,	—Dew point (7 A.M.) ... 71°·9	142°·9 ÷ 2 = 71°·4 for month.	
,,	— ,, (3 P.M.) ... 71°·0		
Tension of Vapour	(7 A.M.) ... ·785	1544 ÷ 2 = ·772 ,,	
,, ,,	(3 P.M.) ... ·759		
Humidity	(7 A.M.) ... 90·4	159°·9 ÷ 2 = 79·9 ,,	
,,	(3 P.M.) ... 69·5		

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean) ...	87°·4	
,,	—Minimum (mean) ...	72°·8	
,,	—Extreme maximum in shade ...	90°·	
,,	—Extreme minimum in shade ...	70°·	
,,	—Mean temperature for the month ...	80°·1	
,,	—Range of temperature for the month	20°·	
,,	—Dew point 7 A.M. ... 74°·7	148°·8 ÷ 2 = 74°·4 for month.	
,,	— ,, 3 P.M. ... 74°·1		
Tension of Vapour	7 A.M. ... ·860	1700 ÷ 2 = ·850 ,,	
,, ,,	3 P.M. ... ·840		
Humidity	7 A.M. ... 99·0	178°·0 ÷ 2 = 89·0 ,,	
,,	3 P.M. ... 79·0		

Health of Port-of-Spain, June, 1888. ***Taken from a Return published by the Registrar-General, shewing number of deaths from a few groups of diseases.****

Dentition or infantile diseases ...	10	
Lung diseases	22	
Heart disease	0	
Debility	3	
Dysentery and diarrhœa	42	
Fevers	5	
Various other diseases—1 to 6 deaths in ea...	16	
Undescribed	22	
Total		120
Deaths in Hospital from out Districts ...		17
Actual No. of Deaths of Residents in Port-of-Spain		103
Total No. of deaths in Hospital ...		50

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF JUNE, 1888.

No. of Station.	Station.	Inches.	Average for Month June	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	11·92	7·81	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	8·75	...	...	Police ...	8
64	Royal Gaol	10 59	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	9·05	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	11·23	...	...	Police ...	5
6	Tunapuna Village	7 09	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	10·84	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	14·75	...	...	Charles Sanguinetti..	5
49	Arima—Garden Estate ...	10·55	...	...	J. S. Greenidge ...	5
7	Arima	12·86	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	9·57	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	11·48	...	...	Police ...	5
14	Couva—Exchange Village ...	8·45	...	...	John P. Telfer ...	5
15	Couva—Police Station	9·22	...	...	Police ...	5
19	Montserrat—Tortuga Estate ...	...	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	8·77	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	...	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	9·34	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...		5
27	Cedros—Police Station	3·31	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	2·45	...	...	Colonial Company ...	...
72	St. Marie Estate—Cedros ...	4·42	...	...	J. C. Dickson ...	...
73	La Retrait Estate—Cedros ...	7·17	...	...	H. Lachapelle ...	...
2	Tucker Valley	12·50	...	...	Albert Gomez ...	5
21	Princes Town—Malgretoute ...	8·01	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	8·32	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	...	...	...	A Mackintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	6·50	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	7·18	...	...	Police ...	5
12	Chaguanas—Police Station ...	11·89	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	...	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	11·37	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield ($\frac{PS}{P}$) ...	11·78	...	...		...
8	Tumpuna—Police Station ...	15·90	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	3·38	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	4·75	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	9·59	...	...	Police ...	8
30	Moruga Road—Rest House ...	8·10	...	...	Police ...	8
23	Gasparil—Preventive Station ...	7·69	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	11·79	...	...		...
34	Naparima—Harmony Hall Est. (H.H.)	5·49	...	...		...
35	Naparima—Tarouba Estate (T.B.) ...	7·41	...	...	S. A. Rawlin ...	...
36	Naparima—Williamsville Est. (W.V.)	8·17	...	...		...
37	Naparima—Concord Estate (C.C.) ...	8·64	...	...	L. A. de Verteuil ...	...
38	Naparima—Union Hall Estate (N.)...	10·24	...	...		...
39	Naparima—Petit Morne Estate (P.M.)	6·60	...	...	D. J. Colly ...	...
40	Naparima—Golconda Estate (G.C.) ...	8·11	...	...	E. F. Stone ...	...
41	Naparima—Cedar Hill Estate (C.H.)...	6·78	...	...		...
42	Naparima—St. Mad'lne Usine (U.S.M.)	7·58	...	...		...
59	Naparima—Plein Palais (P.P.) ...	6·67	...	...		...
45	Naparima—Friendship Estate (F.C.C.)	7·85	...	...	J. Rowbottom ...	8
56	Naparima—Craignish Estate ...	8·40	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	6·54	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	6·90	...	...	J. C. Lewis ...	8
75	Maraval—Val de Oro ...	8·87	...	...	Jno. Gibbings ...	8
51	Maraval—Police Station ...	9·88	...	...	Police ...	8
53	Diego Martin—Police Station ...	9·38	...	...	Police ...	8
54	Maracas Bay	12·01	...	...	C. de Verteuil ...	8
55	Maracas—Govt. School ...	9·40	...	...	S. A. Alexis ...	8
57	Blanchisseuse	...	...	...	Police ...	8
58	Cap-de-Ville	...	...	...	Police ...	8
62	Valencia	18·80	...	...	F. Wallan ...	8
63	La Brea	8·19	...	...	J. W. McCarthy ...	8

RAINFALL FOR MONTH OF JUNE, 1888.—CONTINUED.

No. of Station.	Station.	Inches.	Average for Month June.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
65	Carapichaima	...	...	...	J. Fogg ...	8
66	Nariva—The Cocal	...	...	...	R. Edwin Legge ...	8
68	Manzanilla—Police Station ...	12·31	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	8·59	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	8·40	...	...	Police ...	8
69	Brechin Castle	9·39	...	...	F. J. S. Rawle ...	...
70	Rivulet Estate	5·95	...	...	Gordon Frestrail ...	...
71	St. Helena Estate	14·20	...	...	...	...
74	La Plaisance Estate	8·06	...	...	...	...
76	Curepe	9·15	...	...	J. S. Wilson ...	...
77	McLeod Plain	8·89	...	...	do. ...	...
78	Caroni	9·49	...	...	do. ...	...

Average Rainfall	7·53	For the whole Island for month.
25 Years' average for June ...	7·81	As recorded at Royal Botanic Gardens.
Less than average ...	0·28	

OBSERVATIONS.

The average rainfall at the Royal Botanic Gardens for 25 years previous to and including 1886, was 7·81 inches. The fall for 1887 was 7·40 inches. The fall for June at the Royal Botanic Gardens was 11·92 inches or 4·39 inches above the records for 25 years. On the other hand the average of 78 Stations, representing the whole Island, gives a fall of 7·53 inches, which is lower than the average fall for 25 years at the Royal Botanic Gardens.

The Station at the Botanic Gardens was among those Stations for which a high rainfall was recorded.

The heaviest falls occurred at Valencia, 18·80, Tumpuna, 15·90, St. Helena, 14·20, Tucker Valley, 12·50. Manzanilla, 12·31, and Arima, 12·86. The Gardens next with 11·92.

The Humidity shews a large difference from previous month, nearly 80 per cent. of moisture being present on the average.

From the Return of No. 2 Station, Chaguanas, it will be seen that the Humidity present for the month in the mornings at 7 a.m., averaged 99 per cent., or within one degree of Saturation.

It is to be noticed also that the range of Temperature at the Gardens was 3°·5 less during June than during the previous month.

The increase of deaths under the head of Diarrhœa and Dysentery would appear to correspond with the exceptional rainfall. Since 1879 no equal quantity has been registered.

The greatest falls of previous years, since 1862, occurred as follows :—1874, 12·28 inches, 1876, 11·17 inches, 1879, 14·92 inches, 1881, 11·05 inches, 1883, 10·91 inches.

The rainfall for present month of July to date 25th, is barely 6·00 inches.

The range of Temperature at Chaguanas is 2° less than at Port-of-Spain, while the minimum Temperature is two degrees (2°) higher. The maximum being the same.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office :—

"The gauge should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one* "*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The gauge should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "gauge been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Gauges will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

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* In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the gauge, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.

METEOROLOGICAL RETURN FOR JULY, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.—29·902 inches. 3 P.M.—29·849 ,,	
Temperature	—Maximum (mean)	88°·3	Fah.
,,	—Minimum (mean)	71°·3	Fah.
,,	—Maximum (extreme) registered on 9th, 15th, & 30th days ...	90°·	Fah.
,,	—Minimum (extreme) registered on 31st day ...	67°·	Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 25th day	159°·	Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, regist'd on 12th, 30th & 31st days	65°·	Fah.
,,	—Mean temperature for the month	79°·8	Fah.
,,	—Range of temperature for the month	23°·	Fah.
,,	—Dew point (7 A.M.) ... 72°·44		
,,	— ,, (3 P.M.) ... 73°·02	145°·46 ÷ 2 = 77°·7 for month.	
Tension of Vapour	(7 A.M.) ... ·785		
,, ,,	(3 P.M.) ... ·812	1597 ÷ 2 = ·798	,,
Humidity	(7 A.M.) ... 87·0		
,,	(3 P.M.) ... 69·0	156°·0 ÷ 2 = 78·0	,,

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean) ...	82°·2	
,,	—Minimum (mean) ...	72°·4	
,,	—Extreme maximum in shade ...	91°·0	
,,	—Extreme minimum in shade ...	69° 0	
,,	—Mean temperature for the month ...	80°·3	
,,	—Range of temperature for the month	22°·0	
,,	—Dew point 7 A.M. ... 74°·8		
,,	— ,, 3 P.M. ... 85°·9	160°·7 ÷ 2 = 80°·3 for month.	
Tension of Vapour	7 A.M. ... ·868		
,, ,,	3 P.M. ... ·897	1765 ÷ 2 = ·882	,,
Humidity	7 A.M. ... 100·0		
,,	3 P.M. ... 78·0	178°·0 ÷ 2 = 89·0	,,

Health of Port-of-Spain, July, 1888. *Taken from a Return published by the Registrar-General, shewing number of deaths from a few groups of diseases.**

Dentition or infantile diseases ...	13	
Lung diseases	18	
Heart disease	0	
Debility	5	
Dysentery and diarrhœa	103	
Fevers	12	
Various other diseases—1 to 6 deaths in ea...	29	
Undescribed	29	
Total		209
Deaths in Hospital from out Districts ...		16
Actual No. of Deaths of Residents in Port-of-Spain		193
Total No. of deaths in Hospital ...		60

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF JULY, 1888.

No. of Station.	Station.	Inches.	Average for Month July	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	6·89	9·37	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	6·01	...	...	Police ...	8
64	Royal Gaol	8·54	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	8·94	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	11·38	...	...	Police ...	5
6	Tunapuna Village	6·67	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	10·75	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	12·02	...	...	Charles Sanguinetti..	5
49	Arima—Garden Estate ...	11·40	...	...	J. S. Greenidge ...	5
7	Arima	12·84	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	3·82	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	5·38	...	...	Police ...	5
14	Couva—Exchange Village ...	11·97	...	...	John P. Telfer ...	5
15	Couva—Police Station	12·93	...	...	Police ...	5
19	Montserrat—Tortuga Estate ...	...	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	7·84	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	...	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	4·89	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...		5
27	Cedros—Police Station	4·79	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	2·00	...	...	Colonial Company ...	...
72	St. Marie Estate—Cedros ...	6·32	...	...	J. C. Dickson ...	...
73	La Retrait Estate—Cedros ...	6·47	...	...	H. Lachapelle ...	...
2	Tucker Valley	...	...	...	Albert Gomez ...	5
21	Princes Town—Malgretoute ...	8·24	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	6·94	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	7·08	...	...	A Mackintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	3·85	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	5·90	...	...	Police ...	5
12	Chaguanas—Police Station ...	10·75	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	...	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	9·05	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield ($\frac{DS}{P}$) ...	10·09	...	...		...
8	Tumpuna—Police Station ...	10·86	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	5·13	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	5·81	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	6·26	...	...	Police ...	8
30	Moruga Road—Rest House ...	7·33	...	...	Police ...	8
23	Gasparil—Preventive Station ...	5·64	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	9·50	...	...		...
34	Naparima—Harmony Hall Est. (H.H.)	7·64	...	...		...
35	Naparima—Tarouba Estate (T.B.) ...	5·92	...	...	S. A. Rawlin ...	...
36	Naparima—Williamsville Est. (W.V.)	8·20	...	...		...
37	Naparima—Concord Estate (C.C.) ...	5·09	...	...	L. A. de Verteuil ...	...
38	Naparima—Union Hall Estate (N.)...	8·19	...	...		...
39	Naparima—Petit Morne Estate (P.M.)	7·20	...	...	D. J. Colly ...	...
40	Naparima—Golconda Estate (G.C.) ...	7·39	...	...	E. F. Stone ...	...
41	Naparima—Cedar Hill Estate (C.H.)...	6·96	...	...		...
42	Naparima—St. Mad'lne Usine (U.S.M.)	8·13	...	...		...
59	Naparima—Plein Palais (P.P.) ...	6·07	...	...		...
45	Naparima—Friendship Estate (F.C.C.)	...	...	...	J. Rowbottom ...	8
56	Naparima—Craignish Estate ...	7·42	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	5·57	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	6·68	...	...	J. C. Lewis ...	8
75	Maraval—Val de Oro ...	5·43	...	...	Jno. Gibbings ...	8
51	Maraval—Police Station ...	5·88	...	...	Police ...	8
53	Diego Martin—Police Station ...	7·91	...	...	Police ...	8
54	Maracas Bay	9·11	...	...	C. de Verteuil ...	8
55	Maracas—Govt. School ...	6·14	...	...	S. A. Alexis ...	8
57	Blanchisseuse	...	...	...	Police ...	8
58	Cap-de-Ville	...	...	...	Police ...	8
62	Valencia	13·19	...	...	F. Wallan ...	8
63	La Brea	6·23	...	...	J. W. McCarthy ...	8

RAINFALL FOR MONTH OF JULY, 1888.— CONTINUED.

No. of Station.	Station.	Inches.	Average for Month July.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
65	Carapichaima	...	...	...	J. Fogg ...	8
66	Nariva—The Cocal	...	...	...	R. Edwin Legge ...	8
68	Manzanilla—Police Station ...	6·38	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	7·23	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	5·59	...	...	Police ...	8
69	Brechin Castle	10·71	...	...	F. J. S. Rawle ...	...
70	Rivulet Estate	7·65	...	...	Gordon Frestrail ...	...
71	St. Helena Estate	10·65	...	...	...	...
74	La Plaisance Estate	6·01	...	...	...	...
76	Curepe	9·24	...	...	J. S. Wilson ...	...
77	McLeod Plain	9·36	...	...	do. ...	...
78	Caroni	11·94	...	...	do. ...	...

Average Rainfall ...	7·74	For the whole Island for month.
25 Years' average for July ...	9·37	As recorded at Royal Botanic Gardens.
Less than average ...	1·63	

OBSERVATIONS.

The rainfall for the month of July is 1·63 inches below that of the average fall at the Royal Botanic Gardens.

The heaviest fall occurred at Valencia, the same as in June. The next heaviest were Couva Police Station, 12·93, Arima, 12·84, Cumuto, 12·02, Couva, Exchange Village, 11·97 and Caroni 11·94 inches.

The rainfall at the Botanic Gardens is 2·48 inches below average.

The Humidity was one degree less only than last month, and the Range of temperature was greater by one degree at the Gardens than last month, but at Chaguanas the Humidity was at Saturation point at 7 a.m. for the whole month.

The increase of deaths under the head of Diarrhœa and Dysentery is remarkable.

On the relation of death-rate to the annual rainfall, there is given in "*Nature*" of July 12, 1888, an admirable statistical account by Mr. S. A. Hill, showing the mortality from various causes from records of the last ten years of the North-west Provinces of India and Oudh.

The Report must be taken as a whole to shew its value, but I copy two or three short and very suggestive extracts which may stimulate enquiry here also.

"The first seven years witnessed great fluctuations in the rainfall, and these were almost exactly parallel in the death-rates, the wettest years being those of the greatest mortality. During the last three years on the other hand the death-rate increased slightly as rainfall diminished and *vice-versâ*. Amongst the principal causes of death, Cholera and Small-pox vary enormously in their prevalence from year to year, these diseases being of an epidemic nature, but the variations do not seem to be related in any way to the rainfall. On the contrary those from endemic malarial fevers follow the rainfall variations very closely, and they are the chief factors in the general mortality." * * * *

"This means that malarial fevers are directly dependent on rainfall in their annual variation as in the variations from year to year; but it takes about three months in Northern India, for the malarial conditions brought about by rainfall (which probably depend on the growth and decay of vegetation) to attain full developement." * * *

"The meteorological conditions predisposing to Cholera are evidently heat and moisture, the disease being more prevalent than usual during the hot season, and dying out in the cool."

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office:—

"The gauge should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one*

"*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The gauge should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "gauge been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Gauges will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

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* In case of heavy rainfall at any time of the day the rogister may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the gauge, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.

METEOROLOGICAL RETURN FOR AUGUST, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.	29·886 inches.
		3 P.M.	29·809 ,,
Temperature	—Maximum (mean)		87°·5 Fah
,,	—Minimum (mean)		71°·5 Fah.
,,	—Maximum (extreme) registered on 15th day		90°·5 Fah.
,,	—Minimum (extreme) registered on 9th & 20th days		68°· Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 26th day		159°· Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, regist'd on 9th & 16th days		65°· Fah.
,,	—Mean temperature for the month		79°·5 Fah.
,,	—Range of temperature for the month		22°·5 Fah.
,,	—Dew point (7 A.M.) 72°·20	147°·10 ÷ 2 =	73°·5 for month.
,,	— ,, (3 P.M.) 74°·90		
Tension of Vapour	(7 A.M.) ·785	1653 ÷ 2 =	·826 ,,
,, ,,	(3 P.M.) ·868		
Humidity	(7 A.M.) 87·0	166°·0 ÷ 2 =	83·0 ,,
,,	(3 P.M.) 79·0		

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean)		88°·0
,,	—Minimum (mean)		71°·0
,,	—Extreme maximum in shade		91°·0
,,	—Extreme minimum in shade		67°·0
,,	—Mean temperature for the month		79°·5
,,	—Range of temperature for the month		24°·0
,,	—Dew point 7 A.M. 71°·4	146°·0 ÷ 2 =	73°·0 for month.
,,	— ,, 3 P.M. 74°·6		
Tension of Vapour	7 A.M. ·759	1627 ÷ 2 =	·813 ,,
,, ,,	3 P.M. ·868		
Humidity	7 A.M. 93·0	169°·0 ÷ 2 =	84·5 ,,
,,	3 P.M. 76·0		

Health of Port-of-Spain, August, 1888. *Taken from a Return published by the Registrar-General, shewing number of deaths from a few groups of diseases.**

Dentition or infantile diseases	11	
Lung diseases	18	
Heart disease	5	
Debility	10	
Dysentery and diarrhœa	61	
Fevers	7	
Various other diseases—1 to 5 deaths in ea	8	
Undescribed	27	
Total		147
Deaths in Hospital from out Districts		17
Actual No. of Deaths of Residents in Port-of-Spain		130
Total No. of deaths in Hospital		52

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF AUGUST, 1888.

No. of Station.	Station.	Inches.	Average for Month Aug.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	7·02	10·61	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	4·66	...	...	Police ...	8
64	Royal Gaol	6·60	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	9·95	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	9·80	...	...	Police ...	5
6	Tunapuna Village	7·17	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	...	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	13·02	...	...	Charles Sanguinetti..	5
49	Arima—Garden Estate ...	...	...	...	J. S. Greenidge ...	5
7	Arima	17·11	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	5·72	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	7·83	...	...	Police ...	5
14	Couva—Exchange Village ...	7·77	...	...	John P. Telfer ...	5
15	Couva—Police Station	8·59	...	...	Police ...	5
19	Montserrat—Tortuga Estate ...	...	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	10·47	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	...	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	5·71	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...		5
27	Cedros—Police Station	8·56	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	6·32	5·49	11	Colonial Company ...	...
72	St. Marie Estate—Cedros ...	8·77	...	...	J. C. Dickson ...	...
73	La Retrait Estate—Cedros ...	7·05	...	...	H. Lachapelle ...	...
2	Tucker Valley	8·24	...	...	Albert Gomez ...	5
21	Princes Town—Malgretoute ...	9·25	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	6·43	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	10·31	...	...	A Mackintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	6·14	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	6·48	...	...	Police ...	5
12	Chaguanas—Police Station ...	7·15	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	...	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	9·64	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield ($\frac{DS}{P}$) ...	8·88	...	...		...
8	Tumpuna—Police Station ...	15·09	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	...	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	6·36	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	6·75	...	...	Police ...	8
30	Moruga Road—Rest House ...	8·94	...	...	Police ...	8
23	Gasparil—Preventive Station ...	6·58	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	8·14	9·27	11		...
34	Naparima—Harmony Hall Est. (H.H.)	7·70	9·23	11		...
35	Naparima—Tarouba Estate (T.B.) ...	6·70	8·27	11	S. A. Rawlin ...	...
36	Naparima—Williamsville Est. (W.V.)	10·98	9·13	11		...
37	Naparima—Concord Estate (C.C.) ...	5·65	8·41	8	L. A. de Verteuil ...	...
38	Naparima—Union Hall Estate (U.) ...	12·07	9·28	11		...
39	Naparima—Petit Morne Estate (P.M.)	9·82	8·78	11	D. J. Colly ...	...
40	Naparima—Golconda Estate (G.C.) ...	9·38	8·42	11	E. F. Stone ...	...
41	Naparima—Cedar Hill Estate (C.H.)...	8·91	8·02	11		...
42	Naparima—St. Mad'lne Usine (U.S.M.)	9·63	8·18	11		...
59	Naparima—Plein Palais (P.P.) ...	8·47	7·62	3		...
45	Naparima—Friendship Estate (F.C.C.)	...	...	...	J. Rowbottom ...	8
56	Naparima—Craignish Estate ...	7·75	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	9·64	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	9·22	...	...	J. C. Lewis ...	8
75	Maraval—Val de Oro ...	9·21	...	...	Jno. Gibbings ...	8
51	Maraval—Police Station ...	12·08	...	...	Police ...	8
53	Diego Martin—Police Station ...	8·66	...	...	Police ...	8
54	Maracas Bay	11·69	...	...	C. de Verteuil ...	8
55	Maracas—Govt. School ...	9·03	...	...	S. A. Alexis ...	8
57	Blanchisseuse	...	...	...	Police ...	8
58	Cap-de-Ville	...	...	...	Police ...	8
62	Valencia	9·90	...	...	F. Wallan ...	8
63	La Brea	8·73	...	...	J. W. McCarthy ...	8

RAINFALL FOR MONTH OF AUGUST, 1888.— CONTINUED.

No. of Station.	Station.	Inches.	Average for Month Aug.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
65	Carapichaima	...	...	...	J. Fogg ...	8
66	Nariva—The Cocal	...	...	...	R. Edwin Legge ...	8
68	Manzanilla—Police Station ...	5·13	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	11·92	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	8·25	...	...	Police ...	8
69	Brechin Castle	8·26	...	...	F. J. S. Rawle ...	...
70	Rivulet Estate	7·30	...	...	Gordon Frestrail ...	...
71	St. Helena Estate	11·83	...	...	...	...
74	La Plaisance Estate	5·77	...	...	...	...
76	Curepe	7·84	...	...	J. S. Wilson ...	...
77	McLeod Plain	7·78	...	...	do. ...	...
78	Caroni	10·15	...	...	do. ...	...

Average Rainfall ...	8·67	For the whole Island for month.
25 Years' average for August ...	10·61	As recorded at Royal Botanic Gardens.
Less than average ...	1·94	

OBSERVATIONS.

The Rainfall for August is below that of the average fall for the month at the Royal Botanic Gardens for the past 25 years.

The fall at the Royal Botanic Gardens is 3·59 inches below 25 years average.

The heaviest falls during the month occurred at Arima (where 6 inches fell in two days) 17·11 inches, Tumpuna, 15·09 inches, Cumuto, 13·02 inches, Maraval, 12·08 inches.

The least rain occurred at Port-of-Spain Police Barracks, 4·66 inches, Toco, 5·72 inches, Oropouche, 5·71 inches, and Manzanilla, 5·13 inches.

The average Rainfall for August is greater than last year's Return by 0·81 inches only.

The average Humidity is greater by 2° than last year, while the Tension of Vapour is somewhat greater.

The difference between the extreme maximum temperature, is half a degree between August, 1887, and August, 1888, the latter being highest.

The maximum Sun Temperature was greater during August, 1887, while the mean Temperature is almost identical. 1887 = 79°·3 Fah., and 1888 = 79°·5 Fah. The Range of Temperature for August, 1887, and August, 1888 is almost identical.

The death rate for August, 1888 is above that for 1887 by the number of 15 deaths only, notwithstanding the large number of registrations under the head of Dysentery and Diarrhœa for the former.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office:—

"The gauge should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one* "*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The gauge should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "gauge been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Gauges will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

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*In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the gauge, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.

METEOROLOGICAL RETURN FOR SEPTEMBER, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.—29·827 inches. 3 P.M.—29·737	,,
Temperature	—Maximum (mean)	91°·	Fah.
,,	—Minimum (mean)	70°·	Fah.
,,	—Maximum (extreme) registered on 12th day	95°·	Fah.
,,	—Minimum (extreme) registered on 30th day	61°·	Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 1st & 15th days	158°·	Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, registered on 2nd day	60°·	Fah.
,,	—Mean temperature for the month	80°·5	Fah.
,,	—Range of temperature for the month	21°·	Fah.
,,	—Dew point (7 A.M.) ... 71°·55	143°·03 ÷ 2 = 71°·5 for month.	
,,	— ,, (3 P.M.) ... 71°·48		
Tension of Vapour	(7 A.M.) ... ·772	1542 ÷ 2 = ·771	,,
,, ,,	(3 P.M.) ... ·770		
Humidity	(7 A.M.) ... 84·0	147°·0 ÷ 2 = 73·5	,,
,,	(3 P.M.) ... 63·0		

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean) ...	89°·0	
,,	—Minimum (mean) ...	71°·0	
,,	—Extreme maximum in shade ...	93°·0	
,,	—Extreme minimum in shade ...	67°·0	
,,	—Mean temperature for the month ...	80°·0	
,,	—Range of temperature for the month	26°·0	
,,	—Dew point 7 A.M. ... 72°·2	151°·2 ÷ 2 = 75°·6 for month.	
,,	— ,, 3 P.M. ... 79°·0		
Tension of Vapour	7 A.M. ... ·785	1775 ÷ 2 = ·887	,,
,, ,,	3 P.M. ... ·990		
Humidity	7 A.M. ... 96·0	184°·0 ÷ 2 = 92·	,,
,,	3 P.M. ... 88·0		

Health of Port-of-Spain, September, 1888. *Taken from a Return published by the Registrar-General, showing number of deaths from a few groups of diseases.**

Dentition or infantile diseases ...	9	
Lung diseases	30	
Heart disease	4	
Debility	3	
Dysentery and diarrhœa	44	
Fevers	7	
Various other diseases—1 to 5 deaths in ea...	21	
Undescribed	15	
Total		133
Deaths in Hospital from out Districts ...		13
Actual No. of Deaths of Residents in Port-of-Spain		120
Total No. of deaths in Hospital ...		44

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF SEPTEMBER, 1888.

No. of Station.	Station.	Inches.	Average for Month Sept.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	5·53	8·03	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	4·18	...	...	Police ...	8
64	Royal Gaol	6·48	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	3·87	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	3·91	...	...	Police ...	5
6	Tunapuna Village	...	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	9·29	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	6·58	...	...	Charles Sanguinetti..	5
49	Arima—Garden Estate ...	9·84	...	...	J. S. Greenidge ...	5
7	Arima	7·97	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	8·66	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	9·64	...	...	Police ...	5
14	Couva—Exchange Village ...	4·35	...	...	John P. Telfer ...	5
15	Couva—Police Station	5·08	...	...	Police ...	5
19	Montserrat—Tortuga Estate ...	...	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	3·60	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	...	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	6·96	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...		5
27	Cedros—Police Station	1·90	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	·95		...	Colonial Company ...	...
72	St. Marie Estate—Cedros ...	3·42	...	...	J. C. Dickson ...	...
73	La Retrait Estate—Cedros ...	4·74	...	...	H. Lachapelle ...	...
2	Tucker Valley	3·00	...	...	Albert Gomez ...	5
21	Princes Town—Malgretoute ...	3·49	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	3·91	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	3·82	...	...	A Mackintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	3·80	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	3·66	...	...	Police ...	5
12	Chaguanas—Police Station ...	6·80	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	...	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	8·04	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield ($\frac{DS}{P}$) ...	4·30	...	...		...
8	Tumpuna—Police Station ...	7·15	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	...	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	6·73	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	5·61	...	...	Police ...	8
30	Moruga Road—Rest House ...	3·77	...	...	Police ...	8
23	Gasparil—Preventive Station ...	...	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	4·87	...	11	...	...
34	Naparima—Harmony Hall Est. (H.H.)	4·56	...	11	...	...
35	Naparima—Tarouba Estate (T.B.) ...	6·19	...	11	S. A. Rawlin ...	...
36	Naparima—Williamsville Est. (W.V.)	3·38	...	11	...	...
37	Naparima—Concord Estate (C.C.) ...	6·33	...	8	L. A. de Verteuil ...	...
38	Naparima—Union Hall Estate (N.)...	9·71	...	11	...	...
39	Naparima—Petit Morne Estate (P.M.)	7·07	...	11	D. J. Colly ...	...
40	Naparima—Golconda Estate (G.C.) ...	6·43	...	11	E. F. Stone ...	...
41	Naparima—Cedar Hill Estate (C.H.)...	4·42	...	11	...	...
42	Naparima—St. Mad'lne Usine (U.S.M.)	7·72	...	11	...	...
59	Naparima—Plein Palais (P.P.) ...	5·12	...	3	...	...
45	Naparima—Friendship Estate (F.C.C.)	...	...	...	J. Rowbottom ...	8
56	Naparima—Craignish Estate ...	2·22	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	7·40	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	7·31	...	...	J. C. Lewis ...	8
75	Maraval—Val de Oro ...	...	...	...	Jno. Gibbings ...	8
51	Maraval—Police Station ...	7·04	...	...	Police ...	8
53	Diego Martin—Police Station ...	6·22	...	...	Police ...	8
54	Maracas Bay	4·88	...	...	C. de Verteuil ...	8
55	Maracas—Govt. School ...	6·29	...	...	S. A. Alexis ...	8
57	Blanchisseuse	...	...	...	Police ...	8
58	Cap-de-Ville	...	...	...	Police ...	8
62	Valencia	10·63	...	...	F. Wallan ...	8
63	La Brea	5·35	...	...	J. W. McCarthy ...	8

RAINFALL FOR MONTH OF SEPTEMBER, 1888.—CONTINUED.

No. of Station.	Station.	Inches.	Average for Month Sept.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
65	Carapichaima	...	...	...	J. Fogg ...	8
66	Nariva—The Cocal	...	...	...	R. Edwin Legge ...	8
68	Manzanilla—Police Station ...	7·71	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	7·41	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	6·92	...	...	Police ...	8
69	Brechin Castle	4·58	...	...	F. J. S. Rawle ...	...
70	Rivulet Estate	5·02	...	...	Gordon Frestrail ...	...
71	St. Helena Estate	8·03	...	...	...	...
74	La Plaisance Estate	7·26	...	...	...	...
76	Curepe	6·00	...	...	J. S. Wilson ...	...
77	McLeod Plain	6·97	...	...	do. ...	...
78	Caroni	6·68	...	...	do. ...	...

Average Rainfall	5·82	For the whole Island for month.
25 Years' average for September...	8·03	As recorded at Royal Botanic Gardens.
Less than average ...	2·21	

OBSERVATIONS.

The Rainfall for September is below that of the average fall for the month at the Royal Botanic Gardens for the past 25 years.

The fall at the Royal Botanic Gardens is 2·50 inches below 25 years' average.

The heaviest falls during the month occurred at Valencia, 10·63 inches, Arima, 9·84 inches, Toco, 9·64 inches, Union Hall, 9·71 inches and Arouca, 9·21 inches. The Rainfall was generally evenly distributed, with the exception of Cedros, where the fall was only 0·95 inches.

The average Rainfall for September is greater than last year's Return by 1·15 inches.

The average Humidity is less by nearly 10° than last year, and the Tension of Vapour is somewhat higher.

The difference between the extreme maximum temperature, is four degrees between September, 1887, and September, 1888, the latter being highest.

The maximum Sun Temperature was greater during September, 1887, while the mean Temperature is a fraction of a degree higher.—1887 = 79°·6 Fah., and 1888 = 80°·5 Fah. The Range of Temperature for September, 1887, and September, 1888, differs by 4°.

The deaths registered in Port-of-Spain for September, 1888, exceed those for 1887 by the number of 24.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office:—

"The gauge should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one* "*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The gauge should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "gauge been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Gauges will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

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* In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the gauge, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.

METEOROLOGICAL RETURN FOR OCTOBER, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.—29·830 inches.	
		3 P.M.—29·766	,,
Temperature	—Maximum (mean)	88°·	Fah.
,,	—Minimum (mean)	70°·	Fah.
,,	—Maximum (extreme) registered on 20th day	91°·	Fah.
,,	—Minimum (extreme) registered on several days	67°·	Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 26th day	158°·	Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, registered on 26th day... ...	61°·	Fah.
,,	—Mean temperature for the month	79°·	Fah.
,,	—Range of temperature for the month	18°·	Fah.
,,	—Dew point (7 A.M.) ... 71°·2	146°·5 ÷ 2 = 73°·2 for month.	
,,	— ,, (3 P.M.) ... 75°·3		
Tension of Vapour	(7 A.M.) ... ·759	1·627 ÷ 2 = ·813	,,
,, ,,	(3 P.M.) ... ·868		
Humidity	(7 A.M.) ... 87·0	186°·0 ÷ 2 = 93·	,,
,,	(3 P.M.) ... 79·0		

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean) ...	89°·0	
,,	—Minimum (mean) ...	70°·0	
,,	—Extreme maximum in shade ...	94°·0	
,,	—Extreme minimum in shade ...	66°·0	
,,	—Mean temperature for the month ...	79°·5	
,,	—Range of temperature for the month	19°·0	
,,	—Dew point 7 A.M. ... 71°·2	149°·2 ÷ 2 = 74°·6 for month.	
,,	— ,, 3 P.M. ... 78°·0		
Tension of Vapour	7 A.M. ... ·759	1·717 ÷ 2 = ·858	,,
,, ,,	3 P.M. ... ·958		
Humidity	7 A.M. ... 93·0	164°·0 ÷ 2 = 82·	,,
,,	3 P.M. ... 71·0		

Health of Port-of-Spain, October, 1888. *Taken from a Return published by the Registrar-General, shewing number of deaths from a few groups of diseases.**

Dentition or infantile diseases ...	11	
Lung diseases	35	
Heart disease	5	
Debility	10	
Dysentery and diarrhœa	18	
Fevers	8	
Various other diseases—1 to 5 deaths in ea...	12	
Undescribed	34	
Total		133
Deaths in Hospital from out Districts ...		17
Actual No. of Deaths of Residents in Port-of-Spain		116
Total No. of deaths in Hospital ...		49

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF OCTOBER, 1888.

No. of Station.	Station.	Inches.	Average for Month Oct.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	5·06	6·65	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	4·22	...	...	Police ...	8
64	Royal Gaol	5·34	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	5·15	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	6·32	...	...	Police ...	5
6	Tunapuna Village	9·50	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	7·88	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	7·78	...	...	Charles Sanguinetti..	5
49	Arima—Garden Estate ...	6·38	...	...	J. S. Greenidge ...	5
7	Arima	8·23	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	7·01	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	8·63	...	...	Police ...	5
14	Couva—Exchange Village ...	2·41	...	...	John P. Telfer ...	5
15	Couva—Police Station	...	...	...	Police ...	5
19	Montserrat—Tortuga Estate ...	...	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	6·03	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	...	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	8·49	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...		5
27	Cedros—Police Station	1·62	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	1·56		...	Colonial Company ...	...
72	St. Marie Estate—Cedros ...	2·18	...	...	J. C. Dickson ...	...
73	La Retrait Estate—Cedros ...	7·08	...	...	H. Lachapelle ...	...
2	Tucker Valley	5·04	...	...	Albert Gomez ...	5
21	Princes Town—Malgretoute ...	6·18	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	5·27	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	5·40	...	...	A Mackintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	3·98	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	2·49	...	...	Police ...	5
12	Chaguanas—Police Station ...	4·40	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	...	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	5·28	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield ($\frac{OS}{P}$) ...	3·83	...	...		...
8	Tumpuna—Police Station ...	10·15	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	...	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	2·44	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	4·75	...	...	Police ...	8
30	Moruga Road—Rest House ...	5·64	...	...	Police ...	8
23	Gasparil—Preventive Station ...	6·32	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	4·31	...	11		...
34	Naparima—Harmony Hall Est. (H.H.)	6·91	...	11		...
35	Naparima—Tarouba Estate (T.B.) ...	7·27	...	11	S. A. Rawlin ...	...
36	Naparima—Williamsville Est. (W.V.)	4·77	...	11		...
37	Naparima—Concord Estate (C.C.) ...	8·09	...	8	L. A. de Verteuil ...	...
38	Naparima—Union Hall Estate (N.)...	14·14	...	11		...
39	Naparima—Petit Morne Estate (P.M.)	7·61	...	11	D. J. Colly ...	...
40	Naparima—Golconda Estate (G.C.) ...	9·22	...	11	E. F. Stone ...	...
41	Naparima—Cedar Hill Estate (C.H.)...	6·14	...	11		...
42	Naparima—St. Mad'lne Usine (U.S.M.)	6·51	...	11		...
59	Naparima—Plein Palais (P.P.) ...	3·85	...	3		...
45	Naparima—Friendship Estate ...	10·26	...	...	A. Bell ...	8
56	Naparima—Craignish Estate ...	5·45	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	6·12	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	6·79	...	...	J. C. Lewis ...	8
75	Maraval—Val de Oro ...	...	...	...	Jno. Gibbings ...	8
51	Maraval—Police Station ...	7·59	...	...	Police ...	8
53	Diego Martin—Police Station ...	5·11	...	...	Police ...	8
54	Maracas Bay	7·23	...	...	C. de Verteuil ...	8
55	Maracas—Govt. School ...	5·12	...	...	S. A. Alexis ...	8
57	Blanchisseuse	...	...	...	Police ...	8
58	Cap-de-Ville	...	...	...	Police ...	8
62	Valencia	11·52	...	...	F. Wallan ...	8
63	La Brea	9·10	...	...	J. W. McCarthy ...	8

RAINFALL FOR MONTH OF OCTOBER, 1888.—CONTINUED.

No. of Station.	Station.	Inches.	Average for Month Oct.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
65	Carapichaima	...	...	...	J. Fogg ...	8
66	Nariva—The Cocal	...	...	...	R. Edwin Legge ...	8
68	Manzanilla—Police Station ...	7·65	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	5·40	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	5·81	...	...	Police ...	8
69	Brechin Castle	3·38	...	...	F. J. S. Rawle ...	...
70	Rivulet Estate	4·21	...	...	Gordon Frestrail ...	...
71	St. Helena Estate	4·37	...	...	...	...
74	La Plaisance Estate	8·96	...	...	...	...
76	Curepe	7·49	...	...	J. S. Wilson ...	...
77	McLeod Plain	5·40	...	...	do. ...	...
78	Caroni	4·75	...	...	do. ...	...
79	Beaulieu Estate, Cedros ...	1·24	...	...	J. L. Dickson ...	...

Average Rainfall	6·06	For the whole Island for month.
25 Years' average for October ...	6·65	As recorded at Royal Botanic Gardens.
Less than average ...	·59	

OBSERVATIONS.

The Rainfall for October is below that of the average fall for the month at the Royal Botanic Gardens for the past 25 years.

The fall at the Royal Botanic Gardens is 1·59 inches below 25 years' average.

The average Rainfall for October is greater than last year's Return by 2·08 inches.

The average Humidity is greater by 11° than last year, and the Tension of Vapour is nearly equal.

The extreme maximum temperature, is exactly that of October, 1887.

The maximum Sun Temperature was greater during October, 1887, and the mean Temperature is a fraction of a degree higher.—1887 = 79°·3 Fah., and 1888 = 79°· Fah. The Range of Temperature for October, 1887, and October, 1888, differs by 5°.

The deaths registered in Port-of-Spain for October, 1888, exceed those for 1887 by the number of 51.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office:—

"The gauge should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one* "*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The gauge should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "gauge been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Gauges will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

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* In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the gauge, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.

METEOROLOGICAL RETURN FOR NOVEMBER, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.—29·820 inches. 3 P.M.—29·761 ,,	
Temperature	—Maximum (mean)	...	87°·5 Fah.
,,	—Minimum (mean)	...	70°·1 Fah.
,,	—Maximum (extreme) registered on 12th day ...	...	92°· Fah.
,,	—Minimum (extreme) registered on several days ...	...	67°· Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 12th day		160°· Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, registered on 2nd day		60°· Fah.
,,	—Mean temperature for the month	...	78°·8 Fah.
,,	—Range of temperature for the month ...	...	25°· Fah.
,,	—Dew point (7 A.M.) ... 72°·2	144°·9 ÷ 2 =	72°·4 for month.
,,	— ,, (3 P.M.) ... 72°·7		
Tension of Vapour	(7 A.M.) ... ·785	1·597 ÷ 2 =	·798 ,,
,, ,,	(3 P.M.) ... ·868		
Humidity	(7 A.M.) ... 90·0	164°·0 ÷ 2 =	82· ,,
,,	(3 P.M.) ... 74·0		

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean) ...	88°·3	
,,	—Minimum (mean) ...	70°·5	
,,	—Extreme maximum in shade ...	91°·0	
,,	—Extreme minimum in shade ...	68°·0	
,,	—Mean temperature for the month ...	79°·1	
,,	—Range of temperature for the month	23°·0	
,,	—Dew point 7 A.M. ... 72°·9	150°·9 ÷ 2 =	75°·4 for month.
,,	— ,, 3 P.M. ... 78°·0		
Tension of Vapour	7 A.M. ... ·812	1·770 ÷ 2 =	·885 ,,
,, ,,	3 P.M. ... ·958		
Humidity	7 A.M. ... 100·0	196°·0 ÷ 2 =	98· ,,
,,	3 P.M. ... 96·0		

*Health of Port-of-Spain, November, 1888. Taken from a Return published by the Registrar-General, shewing number of deaths from a few groups of diseases.**

Dentition or infantile diseases ...	10	
Lung diseases	26	
Heart disease	0	
Debility	10	
Dysentery and diarrhœa	25	
Fevers	10	
Various other diseases—1 to 5 deaths in ea...	17	
Undescribed	22	
Total		120
Deaths in Hospital from out Districts ...		16
Actual No. of Deaths of Residents in Port-of-Spain		104
Total No. of deaths in Hospital ...		56

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF NOVEMBER, 1888.

No. of Station.	Station.	Inches.	Average for Month Nov.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	7·76	6·82	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	7·58	...	...	Police ...	8
64	Royal Gaol	9·43	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	6·75	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	7·60	...	...	Police ...	5
6	Tunapuna Village	...	...	...	Wm. J. Gray ...	5
44	Arouca—Bon Air	9·83	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	11·54	...	...	Charles Sanguinetti..	5
49	Arima—Garden Estate ...	10·44	...	...	J. S. Greenidge ...	5
7	Arima	11·79	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	5·61	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	6·63	...	...	Police ...	5
14	Couva—Exchange Village ...	5·24	...	...	John P. Telfer ...	5
15	Couva—Police Station	5·94	...	...	Police ...	5
19	Montserrat—Tortuga Estate ...	11·78	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	7·20	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	...	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	8·96	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...		5
27	Cedros—Police Station	...	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	3·95		...	Colonial Company ...	...
72	St. Marie Estate—Cedros ...	6·20	...	...	J. C. Dickson ...	...
73	La Retrait Estate—Cedros ...	7·13	...	...	H. Lachapelle ...	...
2	Tucker Valley	9·01	...	...	Albert Gomez ...	5
21	Princes Town—Malgretoute ...	9·59	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	7·47	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	9·35	...	...	A Mackintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	5·41	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	8·61	...	...	Police ...	5
12	Chaguanas—Police Station ...	6·80	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	5·73	...	...	James Laing ...	5
50	Chaguanas - Convict Depôt ...	8·22	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield (DS P) ...	5·91	...	...		...
8	Tumpuna—Police Station ...	16·88	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	6·91	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	6·06	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	5·68	...	...	Police ...	8
30	Moruga Road—Rest House ...	14·89	...	...	Police ...	8
23	Gasparil— Preventive Station ...	7·80	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	5·66	...	11	...	...
34	Naparima—Harmony Hall Est. (H.H.)	6·99	...	11	...	...
35	Naparima—Tarouba Estate (T.B.) ...	8·70	...	11	S. A. Rawlin ...	...
36	Naparima—Williamsville Est. (W.V.)	8·96	...	11	...	...
37	Naparima—Concord Estate (C.C.) ...	10·96	...	8	L. A. de Verteuil ...	...
38	Naparima—Union Hall Estate (N.)...	...	...	11	...	...
39	Naparima—Petit Morne Estate (P.M.)	9·86	...	11	D. J. Colly ...	...
40	Naparima—Golconda Estate (G.C.) ...	10·06	...	11	E. F. Stone ...	...
41	Naparima—Cedar Hill Estate (C.H.)...	9·04	...	11	...	...
42	Naparima—St. Mad'lne Usine (U.S.M.)	10·82	...	11	...	...
59	Naparima—Plein Palais (P.P.) ...	6·02	...	3	...	...
45	Naparima—Friendship Estate ...	10·04	...	...	A. Bell ...	8
56	Naparima—Craignish Estate ...	9·06	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	7·35	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	7·86	...	...	J. C. Lewis ...	8
75	Maraval—Val de Oro ...	11·00	...	...	Jno. Gibbings ...	8
51	Maraval—Police Station ...	8·82	...	...	Police ...	8
53	Diego Martin—Police Station ...	7·39	...	...	Police ...	8
54	Maracas Bay	11·30	...	...	C. de Verteuil ...	8
55	Maracas—Govt. School ...	6·03	...	...	S. A. Alexis ...	8
57	Blanchisseuse	...	...	...	Police ...	8
58	Cap-de-Ville	9·80	...	...	Police ...	8
62	Valencia	12·68	...	...	F. Wallan ...	8
63	La Brea	13·59	...	...	J. W. McCarthy ...	8

RAINFALL FOR MONTH OF NOVEMBER, 1888.— CONTINUED.

No. of Station.	Station.	Inches.	Average for Month Nov.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
65	Carapichaima	7·98	...	...	J. Fogg ...	8
66	Nariva—The Cocal	...	...	...	R. Edwin Legge ...	8
68	Manzanilla—Police Station ...	11·41	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	8·11	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	8·95	...	...	Police ...	8
69	Brechin Castle	5·60	...	...	F. J. S. Rawle ...	...
70	Rivulet Estate	5·56	...	...	Gordon Frestrail ...	...
71	St. Helena Estate	11·40	...	...	...	...
74	La Plaisance Estate	10·13	...	...	...	...
76	Curepe	7·37	...	...	J. S. Wilson ...	...
77	McLeod Plain	0·67	...	...	do. ...	...
78	Caroni	10·01	...	...	do. ...	...
79	Beaulieu Estate, Cedros ...	4·12	...	...	J. L. Dickson ...	...
80	Siparia Rest House ...	2·85	...	...	Police ...	...

Average Rainfall	8·18	For the whole Island for month.
25 Years' average for November...	6·82	As recorded at Royal Botanic Gardens.
More than average ...	1·36	

OBSERVATIONS.

The Island Rainfall for November is 1·36 inches above the average recorded for that month for the past 25 years at the Royal Botanic Gardens.

The fall at the Royal Botanic Gardens is ·94 inches above the average.

The average Rainfall for November is 2·58 inches above last year's return.

The Humidity of the Atmosphere differs by 3° from that of November, 1887.

The mean Temperature for November, 1888, and November, 1887, is almost identical but the range of Temperature for November, 1888, is more by 3° than the former year.

The maximum Solar Thermometer registered 1° more in November, 1887, than in November, 1888.

There is to be noted an increase in the number of deaths from Diarrhœa and Dysentery concurrently with an increased Rainfall; also that the deaths from the same causes in 1887 were recorded as 4 only, while for 1888, 25 deaths are registered.

The climate at Chaguanas shews a state of Humidity differing materially from that of Port-of-Spain.

Our morning's registration of the Humidity shews us to have an average of 90°, or within 10° of Saturation, while the Chaguanas register shews an average of Saturation at 7, a.m., almost daily.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office:—

"The gauge should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being made perfectly level. The height of the rim above the ground should be *one* "*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The gauge should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "gauge been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Gauges will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

* In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the gauge, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.

METEOROLOGICAL RETURN FOR DECEMBER, 1888.

ROYAL BOTANIC GARDENS, TRINIDAD.

Station No. 1.

Barometric Pressure	Readings of Barometer reduced to sea level and 32° Fah.	7 A.M.	29·884 inches.
		3 P.M.	29·824 ,,
Temperature	—Maximum (mean)		87°·3 Fah.
,,	—Minimum (mean)		70°·1 Fah.
,,	—Maximum (extreme) registered on 13th day		90°· Fah.
,,	—Minimum (extreme) registered on 17th day		66°· Fah.
,,	—Maximum temperature registered by Thermometer having blackened bulb in vacuo placed in full sun 4 ft. from ground, registered on 28th day		155°· Fah.
,,	—Minimum temperature registered by Thermometer exposed on grass, registered on 17th day		61°·5 Fah.
,,	—Mean temperature for the month		78°·7 Fah.
,,	—Range of temperature for the month		24°· Fah.
,,	—Dew point (7 A.M.) ... 70°·8	142·2 ÷ 2 =	71°·1 for month.
,,	— ,, (3 P.M.) ... 71°·4		
Tension of Vapour	(7 A.M.) ... ·759	1·544 ÷ 2 =	·772 ,,
,, ,,	(3 P.M.) ... ·785		
Humidity	(7 A.M.) ... 93	160 ÷ 2 =	80· ,,
,,	(3 P.M.) ... 67		

Station No. 2.

Results of a series of observations taken at the Convict Depôt, Chaguanas, by C. W. Meaden, Esquire, from instruments which have been tested at the central Station. The Thermometers are similarly exposed, and comparisons can therefore be instituted with correctness.

Temperature	—Maximum (mean)	... 87°·	
,,	—Minimum (mean)	... 69°·5	
,,	—Extreme maximum in shade	... 89°·	
,,	—Extreme minimum in shade	... 65°·	
,,	—Mean temperature for the month	... 78·2	
,,	—Range of temperature for the month	24°	
,,	—Dew point 7 A.M. ... 70·3	143·5 ÷ 2 =	71°·7 for month.
,,	— ,, 3 P.M. ... 73·2		
Tension of Vapour	7 A.M. ... 733	1545 ÷ 2 =	·772 ,,
,, ,,	3 P.M. ... 812		
Humidity	7 A.M. ... 93	169 ÷ 2 =	84·1 ,,
,,	3 P.M. ... 76		

*Health of Port-of-Spain, December, 1888. Taken from a Return published by the Registrar-General, shewing number of deaths from a few groups of diseases.**

Dentition or infantile diseases	... 7	
Lung diseases	... 18	
Heart disease	... 5	
Debility	... 14	
Dysentery and diarrhœa ...	... 33	
Fevers ...	... 8	
Various other diseases—1 to 6 deaths in ea	... 15	
Undescribed ...	... 23	
Total		123
Deaths in Hospital from out Districts	...	13
Actual No. of Deaths of Residents in Port-of-Spain		110
Total No. of deaths in Hospital	...	38

* Usually quoted monthly in Meteorological Returns to show what effect the Weather has on the Death-rate.

RAINFALL FOR MONTH OF DECEMBER, 1888.

No. of Station.	Station.	Inches.	Average for Month Dec.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
1	St. Anne's—Royal Botanic Gardens...	2·95	4·51	25	Superintendent ...	8
52	Port-of-Spain—Police Station ...	3·28	...	...	Police ...	8
64	Royal Gaol	3·64	...	...	O. Harley ...	8
4	St. Joseph—Warden's Office ...	5·24	...	...	Jos. W. Daniell ...	5
5	St. Joseph—Police Station ...	6·17	...	...	Police ...	5
6	Tunapuna Village	...	...	...		5
44	Arouca—Bon Air	7·08	...	...	Jas. S. Greenidge ...	8
9	Cumuto—Santa Teresa ...	12·38	...	...	Charles Sanguinetti..	5
49	Arima—Garden Estate ...	7·64	...	...	J. S. Greenidge ...	5
7	Arima	8·83	...	...	N. D. Moreau ...	5
11	Toco—La Sagesse	3·55	...	...	Charles F. Pierre ...	5
43	Toco—Sans Souci Estate ...	...	...	...	E. G. Le Cheminant..	5
10	Toco—Police Station ...	5·03	...	...	Police ...	5
14	Couva—Exchange Village ...	1·97	...	...	John P. Telfer ...	5
15	Couva—Police Station	2·32	...	...	Police ...	5
19	Montserrat—Tortuga Estate ...	4·11	...	...	A. de Verteuil ...	8
18	Montserrat—Police Station ...	4·95	...	...	Police ...	5
24	Oropouche—Mon Desir... ...	...	...	...	W. Sanderson ...	5
25	Oropouche—Police Station ...	2·42	...	...	Police ...	5
26	Cedros—Warden's Office ...	...	...	...		5
27	Cedros—Police Station	4·21	...	...	Police ...	5
60	Cedros—Columbia (C.W.) ...	4·96		...	Colonial Company ...	...
72	St. Marie Estate—Cedros ...	3·94	...	...	J. C. Dickson ...	...
73	La Retrait Estate—Cedros ...	...	...	...	H. Lachapelle ...	...
2	Tucker Valley	5·07	...	...	Albert Gomez ...	5
21	Princes Town—Malgretoute ...	3·60	...	...	H. Vincent ...	5
22	Princes Town—Police Station ...	3·82	...	...	Police ...	5
48	Princes Town—Lengua, Los Noranjas	3·97	...	...	A. Mackintosh ...	8
16	Claxton's Bay—Mt. Pleasant Estate...	...	...	...	G. S. Kernahan ...	5
31	Mayaro—St. Joseph Estate ...	4·06	...	...	F. A. Ganteaume ...	5
32	Mayaro—Police Station... ...	6·00	...	...	Police ...	5
12	Chaguanas—Police Station ...	5·12	...	...	Police ...	5
13	Chaguanas—Perseverance Estate ...	3·55	...	...	James Laing ...	5
50	Chaguanas—Convict Depôt ...	6·16	...	...	C. W. Meaden ...	8
61	Chaguanas—Petersfield ($\frac{PS}{P}$) ...	3·84	...	...		...
8	Tumpuna—Police Station ...	19·57	...	...	Police. ...	...
28	Erin—La Ressource Estate ...	5·04	...	...	H. E. Jacobson ...	5
46	Erin—Chatham ...	3·91	...	...	Chas. Cadette ...	8
29	Moruga—Police Station ...	5·33	...	...	Police ...	8
30	Moruga Road—Rest House ...	5·84	...	...	Police ...	8
23	Gasparil— Preventive Station ...	4·79	...	...	Police ...	5
33	St. Juan—El Socorro Estate (E.S.) ...	4·87	...	11	...	...
34	Naparima—Harmony Hall Est. (H.H.)	2·74	...	11	...	...
35	Naparima—Tarouba Estate (T.B.) ...	2·68	...	11	S. A. Rawlin ...	...
36	Naparima—Williamsville Est. (W.V.)	4·68	...	11	...	...
37	Naparima—Concord Estate (C.C.) ...	1·99	...	8	L. A. de Verteuil ...	...
38	Naparima—Union Hall Estate (N.)...	...	...	11	...	...
39	Naparima—Petit Morne Estate (P.M.)	1·70	...	11	D. J. Colly ...	...
40	Naparima—Golconda Estate (G.C.) ...	3·27	...	11	E. F. Stone ...	...
41	Naparima—Cedar Hill Estate (C.H.)...	3·15	...	11	...	...
42	Naparima—St. Mad'lne Usine (U.S.M.)	2·92	...	11	...	...
59	Naparima—Plein Palais (P.P.) ...	1·76	...	3	...	...
45	Naparima—Friendship Estate ...	2·25	...	...	A. Bell ...	8
56	Naparima—Craignish Estate ...	3·73	...	...	Geo. Liddelow ...	...
17	San Fernando—Ellerslie House ...	1·39	...	...	James Drennan ...	5
47	San Fernando—Lewisville ...	3·05	...	...	J. C. Lewis ...	8
75	Maraval—Val de Oro ...	4·23	...	...	Jno. Gibbings ...	8
51	Maraval—Police Station ...	3·05	...	...	Police ...	8
53	Diego Martin—Police Station ...	3·85	...	...	Police ...	8
54	Maracas Bay	5·50	...	...	C. de Verteuil ...	8
55	Maracas—Govt. School ...	3·56	...	...	S. A. Alexis ...	8
57	Blanchisseuse	...	...	...	Police ...	8
58	Cap-de-Ville	...	...	...	Police ...	8
62	Valencia	12·82	...	...	F. Wallan ...	8
63	La Brea	1·66	...	...	J. W. McCarthy ...	8

RAINFALL FOR MONTH OF DECEMBER, 1888.—CONTINUED.

No. of Station.	Station.	Inches.	Average for Month Dec.	Length of Average.	Observer.	Diameter of Gauge.
				Yrs.		In.
65	Carapichaima	3·46	...	...	J. Fogg ...	8
66	Nariva—The Cocal ...	...	...	...	R. Edwin Legge ...	8
68	Manzanilla—Police Station ...	8·67	...	...	Police ...	8
67	Santa Cruz—La Regalada ...	3·44	...	...	F. J. Scott ...	8
3	Santa Cruz—Police Station ...	2·92	...	...	Police ...	8
69	Brechin Castle	2·82	...	...	F. J. S. Rawle ...	...
70	Rivulet Estate	2·17	...	...	Gordon Frestrail ...	...
71	St. Helena Estate	8·66	...	...	Jno. McLeod ...	...
74	La Plaisance Estate	2·46	...	...	J. M. McLean ...	...
76	Curepe	5·56	...	...	J. Langton ...	...
77	McLeod Plain	5·39	...	...	H. Rauseo ...	...
78	Caroni	7·03	...	...	Geo. Huggins ...	...
79	Beaulieu Estate, Cedros ...	5·65	...	...	J. L. Dickson ...	...
80	Siparia Police Station ...	3·25	...	...	Police ...	...

Average Rainfall	4·50	For the whole Island for month.
25 Years' average for December...	4·51	As recorded at Royal Botanic Gardens.
Less than average ...	0·01	

OBSERVATIONS.

The Rainfall for December is below that of the average fall for the month at the Royal Botanic Gardens for the past 25 years.

The fall at the Royal Botanic Gardens is 2·14 inches below the 25 year's average.

The average Rainfall for December is less than last year's Return by 7·55 inches.

The average Humidity is less by 6° than last year, and the Tension of Vapour differs by ·027 only.

The extreme maximum temperature is one degree above that of December, 1887.

The maximum Sun Temperature was greater during December, 1887, and the mean Temperature is a degree higher.— 1887=77°·1 Fah., and 1888=78°·7 Fah.

The Range of Temperature for December, 1887, and December, 1888, differs by 6°.

The deaths registered in Port-of-Spain for December, 1888, exceed those for 1887 by 12 only.

The heaviest falls of rain during the month occured at Tumpuna, Valencia and Cumuto being respectively 19·57 inches, 12·82 inches, and 12·38 inches, while the lowest fall occurred at Ellerslie, San Fernando.

The increase of deaths under the heading of Diarrhœa and Dysentery is to be noted. The rainfall for the time being very low.

For the guidance of observers I here quote from the Instructions issued by the London Meteorological Office :—

"The gauge should be set up in a well exposed position, where it will not be sheltered "by trees, buildings, or high walls on any side. It should be placed on *the ground*, the "rim being mrde perfectly level. The height of the rim above the ground should be *one* "*foot*. The angle subtended in each azimuth by the nearest obstacle, such as a building "or tree, should not exceed 30°. The gauge should never under ordinary circumstances "be placed on a roof or at any considerable elevation above the ground, as in such cases "the amount collected will be less than that which would have been recorded had the "gauge been on the ground, nevertheless a roof exposure is better than such a ground "exposure as is sometimes the only one attainable if the space be very confined."

Observers are requested to note that each Station has been assigned a number, and it is particularly desired that such number be quoted in all future returns, as well as the name of the Station. Some observers having *omitted to attend to this rule*, their records cannot be identified for publication.

It is requested that the returns be sent in not later than the 10th of the current month for the preceding, to the undersigned, who is in charge of the records for publication. All returns will be Post Free, provided they are made on the forms which have been supplied for the purpose. It is further requested that all observations of rainfall be taken regularly once a day, viz., at 7, a.m.,* each morning, and the amount then registered should be entered for the preceding day, so that all the returns will be made on an uniform basis. For the improvement of the service His Excellency the Governor has decided that Rain Gauges will be issued at the expense of the Government to gentlemen who are willing to take observations and make monthly returns for publication; application for same being made to this Office.

J. H. HART, F.L.S.,
Superintendent Royal Botanic Gardens.

* In case of heavy rainfall at any time of the day the register may be taken at once and recorded in the notes but the amount must be added to next morning's total. In case a measure glass is broken and the water caught cannot be measured, the record must remain blank until another is supplied. Spare glasses have been ordered for measuring. The compiler will be glad should observers discover any error in the printed returns, if they will report same the following month. In cases of unavoidable absence, measure what is in the gauge, but bracket the record for those days. When a return is accidentally omitted to be sent in time, please send it with the next month's returns.