

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Barone Cottage, County of Bute, in Lat. 55° 49' 50" N. Long. 5° 4' 5" W. Distance from Sea 10 miles.
Height of Cistern of the Barometer above Mean Sea-level 116 feet, above Ground 4 feet. During the MONTH of January 1876.
The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.		SELF-REGISTERING THERMOMETERS.				HYGROMETER.				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.	Days of Month.			
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.									
		No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.	No.					Barometer.		
		inches.		inches.																											
	1	29.360		29.990	52																										
	2	29.900	15	29.910	47																										
	3	29.850	19	29.980	52																										
	4	30.050	53	30.114	53																										
	5	30.140	52	30.246	53																										
	6	30.330	52	30.440	48																										
	7	30.528	42	30.384	45																										
	8	30.164	44	29.964	43																										
	9	30.216	41	30.264	44																										
	10	30.420	43	30.390	46																										
	11	30.260	43	30.100	41																										
	12	29.980	44	30.164	47																										
	13	30.370	43	30.490	46																										
	14	30.540	40	30.522	43																										
	15	30.490	44	30.380	46																										
	16	30.180	45	30.208	49																										
	17	30.120	42	29.600	51																										
	18	29.872	47	29.974	49																										
	19	29.670	49	29.414	51½																										
	20	29.426	48½	29.612	47																										
	21	29.830	43	29.980	40	43	27																								
	22	30.058	41	29.880	45	43½	27																								
	23	29.930	47½	29.808	51½	49½	42½																								
	24	30.030	50	30.272	49	52½	41½																								
	25	30.156	49½	30.064	48½	48½	41½																								
	26	29.984	49½	30.044	51	47½	42																								
	27	30.000	49	30.000	50½	48	44																								
	28	30.040	50	30.124	51½	50½	42½																								
	29	30.042	49	30.030	51½	47	42																								
	30	29.954	49	30.020	51½	47	42½																								
	31	30.004	51½	29.900	53	50	45½																								
	Sums.	2534	1955	2104	2565																										
	Means.	30.08	46.5	30.06	48.3	47.9	40.4																								
	+ Total Corrections for Instrumental Errors.																														
	+ Corrections for Diurnal Range.																														
	"Corrected Means."																														
	No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	m.	denotes meteor.
ci.	cirrus.	ms.	micro-meteor.
ci-cu.	cirro-cumulus.	n.	nimbus.
ci-s.	cirro-stratus.	r.	rain.
cu.	cumulus.	h.r.	heavy rain.
cu-s.	cumulo-stratus.	c. h. r.	continued heavy rain.
d.	dew.	s.	stratus.
f.	fog.	sc.	scud.
fr.	frost.	s.	sleet.
h-fr.	hoar-frost.	s.	snow.
h.	haze.	so.ha.	solar halo.
h. d.	heavy dew.	sq.	squall.
hl.	hall.	sq.	squalls.
l.	lightning.	t.	thunder.
li. cl.	light clouds.	t. s.	thunder storm.
li. sh.	light showers.	w.	wind.
lu. co.	lunar corona.	g.	gale of wind.
lu. ha.	lunar halo.		

TABLE FOR ESTIMATING FORCE OF WIND.

Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.
0	Calm	1-5	Light breeze	4	Blowing hard
0.5	Very light air	2	Fresh breeze	5	Blowing a gale
1	Light air	3	Very fresh	6	Violent gale

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction $\frac{1}{2}$ for Temp. (Col. 2), = 30.029
"Corrected Mean" of Barometer at 9 P.M., minus the Correction $\frac{1}{2}$ for Temp. (Col. 4), = 30.015
Mean at Station, corrected, and at 32°, = 30.022
Correction for height, feet above Mean Sea-level, = 130
Mean, reduced to 32°, and Sea-level, = 30.152
Highest Reading, corrected for Index error, on the 14 th, = 30.540
Lowest Do. Do. on the 19 th, = 29.414
Difference, or Monthly Range, = 1.126

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 14 th, = 52

Lowest in Month, corrected for Index errors, on the 19 th, = 40

Difference, or Monthly Range, = 12

"Corrected Mean" of all the Highest, (Col. 5), = 47.9

"Corrected Mean" of all the Lowest, (Col. 6), = 40.4

Difference, or Mean Daily Range, = 7.5

** Calculated Mean Temperature of Month, = 46.6

S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 14 th, = 52

"Corrected Mean," (Col. 7), of Black Bulb Max. in Sun, = 52

Lowest at Night, Black Bulb, (corrected for Index errors), on the 19 th, = 40

"Corrected Mean," (Col. 8), of Black Bulb Min. on grass, = 40

Difference of above Means or Range ("exposed"), = 12

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 46.5

Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 40.4

†† Computed Temperature of Dew-Point, = 30.152

†† Do. Elastic Force of Vapour, = 0.68

†† Do. Weight of Vapour in a Cubic Foot of Air, = 0.013

†† Relative Humidity, (Saturation = 100), = 68

RAIN fell on 1 Days; Amount in Inches, = 0.1

WIND.		SUMMARY.									
Direction.		N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
A.M.		1	1	2	3	2	4	5	3		
P.M.											
Mean.											

Observations made and
Return verified by

(Signed)

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Burnside Cottage, County of West, in Lat. 55° 45' N, Long. 5° 45' W, Distance from Sea 8-10 miles.Height of Cistern of the Barometer above Mean Sea-level 116 feet, above Ground 4 feet.During the MONTH of February 1877.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.		SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. 1091				WIND.				RAIN.		CLOUDS.				SUNSHINE. Hours.	THERMOMETERS under Ground.			SEA. Temperature at 1 fathom, and Density.	OZONE. 0-10.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc. Mention the hour at which Storms, including Thunder and Lightning, began and ended.		Days of Month.						
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.																
		Barometer. No. 11	Attach- ed Ther- mometer	Barometer. No. 11	Attach- ed Ther- mometer	Max. No. 11	Min. No. 11	Max. in Sun's rays No.	Min. on Grass. No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force	Direction.	Force	Readings of the H. Cup Anemometer No.	No. of hours in which it fell.	Amount in inches.	Velocity (0-5), and Direction.		Amount (0-10), and Species.	Velocity (0-5), and Direction.	Amount (0-10), and Species.						No. 3 inches.	No. 12 inches.	No. 22 inches.			
		Inches.	°	Inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°		°	°	°						°	°	°	°	°	°
		9 h. A.M.	9 h. P.M.	9 h. A.M.	9 h. P.M.	9 h. A.M.	9 h. P.M.	9 h. A.M.	9 h. P.M.	9 h. A.M.	9 h. P.M.	9 h. A.M.	9 h. P.M.	9 h. A.M.	9 h. P.M.	9 h. A.M.	9 h. P.M.	9 h. A.M.	9 h. P.M.	9 h. A.M.	9 h. P.M.		9 h. A.M.	9 h. P.M.	9 h. A.M.						9 h. P.M.	9 h. A.M.	9 h. P.M.	9 h. A.M.	9 h. P.M.	9 h. A.M.
	1	29.712	50.2	29.780	51	48.3	40.5			47.1	46.8	42	40	S	SW															1						
	2	29.842	46.3	29.750	46.3	44	38			40	36.5	42	40	S	W															2						
	3	29.740	45	29.748	45	43.5	36			39.8	38.5	36	34.5	W	NW															3						
	4	29.956	43	30.076	44	43.2	32.5			36.5	33.7	36	32.5	NW	NW															4						
	5	30.094	42	30.064	43	43	28.8			32	31.3	39	35	N	NW															5						
	6	30.090	40	30.140	44	45.8	29			30.5	31.5	31	30.5	NW	E															6						
	7	30.004	42	30.080	41.5	38	30.5			35	33	35	32.5	NE	E															7						
	8	30.044	41.5	29.960	42	36.2	33.5			34	31	35	33	NE	NE															8						
	9	29.844	40	29.814	41	39	33.5			34.8	33	33.5	32.3	NE	E															9						
	10	29.880	39	29.906	41	38.5	30			32	31	32	30	E	E															10						
	11	29.808	39	29.726	43	42.7	25.5			29	31	31.5	29.5	NW	NW															11						
	12	29.750	38	29.750	40	39	29			35	33	31.5	30	E	E															12						
	13	29.608	36	29.488	38	35.5	30			31.5	31	32	31.5	ENE	ENE															13						
	14	29.488	37	29.360	39	37	29.5			32	30	32	30	ENE	E															14						
	15	29.050	41	29.134	46	50	31.5			38	37	44	41.5	SW	SW															15						
	16	29.160	45	29.350	48	48.5	40.5			42.5	40.5	44	41	WSW	WSW															16						
	17	29.394	47	29.350	48	46	39.5			42	40.5	40	39.2	WSW	S															17						
	18	29.016	48	28.850	48	47.5	39.5			43.3	42.5	44	43	SSE	WSW															18						
	19	28.990	44	29.310	46	45	32.5			37	35	36	33.5	NW	W															19						
	20	29.544	43	29.678	40	38.5	29			34.5	32.5	33.3	30.7	NW	ENE															20						
	21	29.362	41.5	29.244	46	48	33.5			38	37	40	39.5	ENE	calm															21						
	22	29.420	47.5	29.274	49	51	39.5			46.5	43.5	45.3	42.5	SW	SW															22						
	23	29.350	47	29.684	44	46.5	37			41.3	39	35	34	NW	NW															23						
	24	29.828	42	29.924	46	44	32.5			38	35.5	34	33	NW	calm															24						
	25	29.576	39	29.310	38	37	31			31.5	30.5	34	33.5	E	ENE															25						
	26	29.206	40.5	29.160	45	41	34			37.8	37.5	39.2	39	ENE	calm															26						
	27	29.146	44	29.190	49	50	38			40.8	40.8	43	42.5	calm	W															27						
	28	29.500	47	29.574	43.5	43.5	37			40.2	40.2	39	38.5	calm	NE															28						
	29	29.340	47	29.530	50	48.8	38.5			41.6	41.5	41	41	SW	SW															29						
	30																														30					
	31																														31					
Sums.		16742	830	17204	855	990	1098			2122	1748	2103	1637																							
Means.		29.577	42.9	29.593	44.3	43.4	33.8			37.3	36.0	37.3	35.6																							
† Total Corrections for Instrumental Errors.																																				
† Corrections for Diurnal Range.																																				
* Corrected Means.																																				
No. of Column.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† for Temp. (Col. 2), = 29.577 - 0.285 = 29.539

"Corrected Mean" of Barometer at 9 P.M., minus the Correction†† for Temp. (Col. 4), = 29.593 - 0.395 = 29.554

Mean at Station, corrected, and at 32°, = 29.547

Correction for height, feet above Mean Sea-level, = 12.9

Mean, reduced to 32°, and Sea-level, = 29.676

Highest Reading, corrected for Index error, on the 6th, = 30.140

Lowest Do. Do., on the 18th, = 28.850

Difference, or Monthly Range, = 1.290

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 22th, = 57.0

Lowest in Month, corrected for Index errors, on the 11th, = 25.5

Difference, or Monthly Range, = 25.5

"Corrected Mean" of all the Highest, (Col. 5), = 43.4

"Corrected Mean" of all the Lowest, (Col. 6), = 33.8

Difference, or Mean Daily Range, = 9.26

** Calculated Mean Temperature of Month, = 38.6

S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 11th, =

"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, =

Lowest at Night, Black Bulb, (corrected for Index errors), on the 11th, =

"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, =

Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 37.3

Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 35.8

†† Computed Temperature of Dew-Point, = 33.2

†† Do. Elastic Force of Vapour, = 1.94

†† Do. Weight of Vapour in a Cubic Foot of Air, =

†† Relative Humidity, (Saturation = 100), = 87

RAIN fell on 18 Days; Amount in Inches, = 5.70

WIND.		SUMMARY.					
Direction.		N	NE	E	SE	S	SW
A.M.		1	6	5	1	1	4
P.M.							2
Mean.							

Observations made and
Return verified by

(Signed)

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Baron Cottage, Perth, County of Perth, in Lat. 56° 49' 50" N, Long. 5° 4' 5" W, Distance from Sea 78 miles.Height of Cistern of the Barometer above Mean Sea-level 116 feet, above Ground 11 feet.During the MONTH of March 1876.

The Hours of Observation are of Greenwich Time.

Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. — 1091.				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc. Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.
	9 h. A.M.		9 h. P.M.		Protected in Shade & Test above Ground.		Exposed Black Bulb.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.								
	Barometer.	Attach- ed Ther- mometer	Barometer.	Attach- ed Ther- mometer	Max. No. 101.	Min. No. 101.	Max. in Sun- rays.	Min. in Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Velocity (0—10), and Direction.	Amount (0—10), and Species.	Velocity (0—10), and Direction.	Amount (0—10), and Species.	No. 8 inches.	12 inches.	No. 22 inches.						
	* No. 4	inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°					
1	29.214	48.2	29.268	48	48.5	40.5			45.5	45	43.2	43	SW		WSW		0.20								Cloudy	1/2 clear evening	1		
2	29.404	47	29.472	48	46.5	40			41.5	41.5	43	42.8	SW		SW		0.30								Blowing with showers — moon halo		2		
3	29.150	50.2	28.960	50	55.5	41			52.5	52	47	46.5	S		SW		1.70								Stormy with black		3		
4	29.058	47	29.284	45	48	40			40.5	40.2	43.8	40.2	WSW		NW		0.10								do		4		
5	29.166	46.2	29.294	49	48.5	41			43.5	40.8	48	47	SW		WSW		1.50								Cloudy — not afternoon		5		
6	29.180	47	29.240	43.2	48.5	36.5			43.5	43.3	38	36	WSW		W		3.40								Blowing with showers — two peaks of thunder N.W. of Perth		6		
7	29.322	41	29.518	42	41.3	32.5			35	33.5	38.5	36.3	WNW		WSW		6.10								Hail blast all day — several peaks of thunder N.W. of Perth		7		
8	29.206	44	28.482	48	44	36			42.5	41	41.5	40	SW		SSW		5.40								Moon halo 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. — 8 P.M. — 9 P.M. — 10 P.M. — 11 P.M. — 12 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P.M. — 1 P.M. — 2 P.M. — 3 P.M. — 4 P.M. — 5 P.M. — 6 P.M. — 7 P.M. —				

BAROMETER, “corrected Mean” at 9 A.M., minus the Correction†† = 29.296
for Temp. (Col. 2), = 29.335 - 0.039 = 29.296
“Corrected Mean” of Barometer at 9 P.M., minus the Correction†† = 29.312
for Temp. (Col. 4), = 29.352 - 0.040 = 29.312
Mean at Station, corrected, and at 32°, = 29.304
Correction for height, feet above Mean Sea-level, = 1.29
Mean, reduced to 32°, and Sea-level, = 29.433
Highest Reading, corrected for Index error, on the 19 th, = 30.150
Lowest Do. Do., on the 9 th, = 28.250
Difference, or Monthly Range, = 1.900

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 3 th, = 55.5
Lowest in Month, corrected for Index errors, on the 17 th, = 26.0
Difference, or Monthly Range, = 29.5
“Corrected Mean” of all the Highest, (Col. 5), = 44.7
“Corrected Mean” of all the Lowest, (Col. 6), = 34.3
Difference, or Mean Daily Range, = 9.8
** Calculated Mean Temperature of Month, = 39.2

S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, =
“Corrected Mean,” (Col. 7), of Black Bulb, Max. in Sun, =
Lowest at Night, Black Bulb, (corrected for Index errors), on the th, =
“Corrected Mean,” (Col. 8), of Black Bulb, Min. on grass, =
Difference of above Means or Range (“exposed”), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 38.3
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 36.6
†† Computed Temperature of Dew-Point, = 34.3
†† Do. Elastic Force of Vapour, = 1.98
†† Do. Weight of Vapour in a Cubic Foot of Air, =
†† Relative Humidity, (Saturation = 100), = 85
RAIN fell on 26 Days; Amount in Inches, = 5.99

WIND.		SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.
A.M.	1	3	2	2	2	7	7	7			
P.M.		2	1	1	2	3	7	8	7		
Mean.	1	2	1	2	2	5	7	8	3		

Observations made and
Return verified byJames Gray

(Signed)

James Gray

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Barrow Cottage, Rathasay, County of Durb, in Lat. 55°49'50" N, Long. 5°4'57" W, Distance from Sea 70 miles.Height of Cistern of the Barometer above Mean Sea-level 116 feet, above Ground 4 feet.During the MONTH of April 1876.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.		SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.				CLOUDS.				SUNSHINE. Hours.	THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc. Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.						
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.															
		Barometer. * No.	Attach- ed Ther- mometer	Barometer. No.	Attach- ed Ther- mometer	Max. No.	Min. No.	Max. in Sun-rays. No.	Min. on Grass. No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Dirrec- tion.	Force	Dirrec- tion.	Force	Readings of the H. Cup, Anemometer No. —	No. of hours in which it fell.	Amount in inches. No.	Velocity (0-6), and Dirrec- tion.	Amount, (0-10), and Species.	Velocity (0-6), and Dirrec- tion.		Amount, (0-10), and Species.	No.	3 inches.					12 inches.	22 inches.	Temperature of Wind, at height of feet, No.	Temperature at height of feet, No.	9 A.M.	9 P.M.
		inches.	°	inches.	°														9 h. A.M.																		
	1	29.622	47	29.770	52	51	35			44	42.5	40	38.5	WSW	calm																		1				
	2	29.862	57.4	29.870	57	50	33.5			47.5	44.5	43.1	40.2	ESE	3																		2				
	3	29.910	50.3	30.020	53.4	53	42.5			49.2	48	46.2	45.2	S	calm																		3				
	4	30.174	53	30.252	55	55	41.5			49	48.5	47.3	46.5	SSW	SW																		4				
	5	30.282	57.4	30.320	55	54.5	45			57.2	49.5	49.8	49.3	SW	calm																		5				
	6	30.370	55	30.372	56	56.5	47.5			57.2	50.5	50.5	50	W	calm																		6				
	7	30.284	56	30.140	56	55.5	48.5			50	49	49.5	48.5	calm	calm																		7				
	8	29.932	57	29.676	56	59.5	45.0			57.5	49	47	46.5	SW	W																		8				
	9	29.484	54	29.404	52	52	40.5			46.2	45	41.2	40	WSW	NW																		9				
	10	29.350	49	29.238	44	47	32.5			40.3	35.5	32	30.3	calm	NW																		10				
	11	29.466	43.3	29.648	43	41.5	31.2			35.2	32.5	32	31	NW	NW																		11				
	12	29.792	45	29.760	43	42	31.8			37	32.5	32	28.2	NW	NW																		12				
	13	29.736	44	29.972	45	47	26.5			35.2	32	33	31	N	N																		13				
	14	30.172	50	30.210	48	51	32.3			42	34.8	37.2	35	calm	calm																		14				
	15	30.172	49	30.080	49	45.8	36.5			42.5	39	43	39.5	S	S																		15				
	16	30.044	46	29.940	51	52	41			45.3	41.8	41	37.2	S	SE																		16				
	17	29.670	43	29.320	44	44.5	35			40.5	38.3	40.5	39.5	NE	E																		17				
	18	29.176	45	29.078	47	53	40			45	42.5	41.3	40	E	E																		18				
	19	28.924	47	28.930	49	50.8	40.3			42	41	44.5	43.5	E	E																		19				
	20	29.012	50	29.150	52	50.6	42			45.3	44.5	43.5	42	calm	W																		20				
	21	29.384	53	29.600	56	56	36.5			49	46	48.8	44.8	W	NW																			21			
	22	29.868	46.3	29.910	47	46.5	36			36.3	35.5	38	36.3	N	E																		22				
	23	29.894	48.3	29.880	47	51	34			41.5	38.5	42.3	40.3	ENE	E																		23				
	24	29.814	47	29.688	52	49	40			46	44.5	46	45.3	E	S																		24				
	25	29.774	53	29.860	53	54	41			50	47.5	55.6	44.2	SW	W																		25				
	26	29.948	52	29.960	54	52	44.6			46.5	45.5	47	44	WSW	calm																		26				
	27	29.784	48	29.550	52	48	35.6			44.6	44.1	47.2	44	ESE	E																		27				
	28	29.368	49	29.450	48	48	41.5			44.5	43.5	42	40.5	NE	E																		28				
	29	29.576	44	29.760	46	48.8	31.5			41.5	38.3	37.5	35	E	E																		29				
	30	29.836	52	29.950	51	55	33.5			50.6	45	40.5	39.7	ENE	calm																			30			
	31																																		31		
Sums.		22680	143	22758	165	205	223			1406	693	795	190							2283																	
Means.		29.756	47.4	29.759	50.2	50.7	38.1			44.7	42.3	42.6	40.6																								
† Total Corrections for Instrumental Errors.																																					
† Corrections for Diurnal Range.																																					
† Corrected Means.																																					
No. of Column.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						

NOTATION USED IN GENERAL REMARKS.					
a.	denotes aurora.	m.	denotes meteor.		
ci.	" cirrus.	ms.	" meteors.		
ci.-cu.	" cirro-cumulus.	n.	" nimbus.		
ci.-s.	" cirro-stratus.	r.	" rain.		
cu.	" cumulus.	c. h. r.	" heavy rain.		
cu.-s.	" cumulo-stratus.	s.	" continued heavy rain.		
d.	" dew.	s.	" stratus.		
f.	" fog.	sc.	" squall.		
fr.	" frost.	s.	" sleet.		
h.-fr.	" hoar-frost.	so. h.	" snow.		
h.	" heavy dew.	sq. h.	" solar halo.		
hl.	" hail.	sq.	" squall.		
l.	" lightning.	sgs.	" squalls.		
li. cl.	" light clouds.	t.	" thunder.		
li. sh.	" light showers.	t. s.	" thunder storm.		
lu. co.	" lunar corona.	w.	" wind.		
lu. ha.	" lunar halo.	g.	" gale of wind.		

TABLE FOR ESTIMATING FORCE OF WIND.					
Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.
0	Calm	1-5	Light breeze	4	Blowing hard
0.5	Very light air	2	Fresh breeze	5	Blowing a gale
1	Light air	3	Very fresh	6	Violent gale

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† = 29.700
for Temp. (Col. 2), = 29.756 - 0.556
"Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 29.701
for Temp. (Col. 4), = 29.759 - 0.558
Mean at Station, corrected, and at 32°, = 29.700
Correction for height, feet above Mean Sea-level, = 127
Mean, reduced to 32°, and Sea-level, = 29.827
Highest Reading, corrected for Index error, on the 6 th, = 30.372
Lowest Do. Do., on the 19 th, = 28.924
Difference, or Monthly Range, = 1.348

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 8 th, = 59.5
Lowest in Month, corrected for Index errors, on the 13 th, = 26.5
Difference, or Monthly Range, = 33.0
"Corrected Mean" of all the Highest, (Col. 5), = 50.7
"Corrected Mean" of all the Lowest, (Col. 6), = 38.1
Difference, or Mean Daily Range, = 12.6
** Calculated Mean Temperature of Month, = 44.4

S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, =
"Corrected Mean," (Col. 7), of Black Bulb Max. in Sun, =
Lowest at Night, Black Bulb, (corrected for Index errors), on the th, =
"Corrected Mean," (Col. 8), of Black Bulb Min. on grass, =
Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 43.7
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 41.5
†† Computed Temperature of Dew-Point, = 38.3
†† Do. Elastic Force of Vapour, = 2.37
†† Do. Weight of Vapour in a Cubic Foot of Air, =
†† Relative Humidity, (Saturation = 100), = 83
RAIN fell on 21 Days; Amount in Inches, = 2.28

WIND.		SUMMARY.									
Direction.		N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
A.M.		2	2	8		4	4	6	2	1	
P.M.		1	8	1	3	1	2	5	8		
Mean.		2	1	8	1	3	3	4	4	4	

Observations made and
Return verified by

James May
Barrow Cottage
Rathasay

(Signed)

James May

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at *Marion Cottage*, County of *But*, in Lat. *55° 49' 50"* N, Long. *5° 4' 50"* W, Distance from Sea *80* miles.
Height of Cistern of the Barometer above Mean Sea-level *116* feet, above Ground *4* feet. During the MONTH of *May* 187*6*.
The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc. Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.		
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.										
		Barometer. * No.	Attach- ed Ther- mometer	Barometer.	Attach- ed Ther- mometer	Max. No.	Min. No.	Max. in Sun's rays	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Readings of the H. Cup Anemometer. No. —	No. of hours in which it fell.	Amount in inches.	Velocity (0—10), and Direction.	Amount (0—10), and Species.	Velocity (0—10), and Direction.	Amount. (0—10), and Species.	No. — 8 inches.	12 inches.					No. — 22 inches.	
		Inches.	°	Inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°					°	°
	1	30.046	48	30.144	50	52	37			42.2	36.6	42.5	39.8	ENE	calm	N	calm											Clear & fine	1			
	2	30.196	53	30.200	54	53	32.5			47.8	42.2	41	37	calm	N	calm												do	2			
	3	30.258	54	30.330	56	56.5	34			48.5	42	42.8	40	WSW	SW													do	3			
	4	30.344	54	30.272	56	58	36			50.8	47	49	44	S	SSW													do - Heavy sky	4			
	5	30.262	58	30.232	57	60.5	44.5			52.3	44	45.3	42.5	WSW	calm													Clear - gentle breeze	5			
	6	30.262	58	30.272	59	64.5	43			56.8	49.8	52.5	46	calm	SW	ENE												Cloudy sky	6			
	7	30.358	58	30.400	57	65	45.5			55	49	47	45	NE	calm													do	7			
	8	30.444	60	30.430	60.5	59.8	40.5			54.3	50	45	40	W	NW													Clear & fine	8			
	9	30.490	58	30.432	61	62.5	41.5			50.2	45	49.5	44.3	NE	ENE													do	9			
	10	30.412	56	30.316	55	60	39.5			49.3	45.5	48.5	44.3	NE	NE													do cold	10			
	11	30.290	57	30.224	57	63.8	39.8			51	46.6	52.5	46	NE	NE													Cloudy sky - breeze	11			
	12	30.242	55	30.256	58	60	39.8			45	42.5	49	45	NE	calm													Clear & breeze	12			
	13	30.332	57	30.224	58.5	60	39.5			55	47	48.3	45	calm	WSW													Clear & fine	13			
	14	30.118	55	30.140	55	53.8	42			51.5	48.2	46	44	calm	ENE			0.01										Cloudy mild - heavy rain	14			
	15	30.140	56	30.210	58	58	38.5			51.5	45	50.3	45.6	NE	E													Clear & fine	15			
	16	30.286	57	30.280	56	57	38			52.8	46	48.5	44	calm	ENE														do	16		
	17	30.300	58	30.306	54	62.5	38.5			53	47.5	46.2	43.3	NE	NE													Clear & fine	17			
	18	30.324	54	30.340	57	57.5	44.5			49	45.6	45.6	43	E	E													Cloudy & mild	18			
	19	30.384	55	30.318	58	61	40.5			48	44.6	47.5	43.5	NE	NW													Cloudy	19			
	20	30.278	59	30.166	58	58	41.5			51	44.3	49	45	NW	NW													Clear & cloudy	20			
	21	29.972	58	29.768	59	63	45			53.5	49	49.5	48	SSE	SW			0.20										Cloudy - showers	21			
	22	29.576	56	29.574	59.5	58	47.5			50	49.5	48	46	SW	NNW			0.80										do do	22			
	23	29.540	57	29.620	58	59.5	46.3			48	46.2	49	47.5	WSW	NE			0.15										do do	23			
	24	29.792	55.5	29.900	57	60	47			49.6	46.5	47.5	45	NE	E													do do	24			
	25	29.890	54	29.860	57	58	40			48.5	44.5	50.5	47	NNW	NW													Dull & cloudy	25			
	26	29.724	54	29.784	58.5	61.3	47.3			52	50.5	51.5	50.5	NW	NNW			0.01										do	26			
	27	29.844	58	30.040	58	59.5	47.3			53.5	51	50.6	49.6	NNW	NNW			0.10										Clear & cloudy	27			
	28	30.106	57	30.301	58	58	47.5			51	50.6	51	49.5	W	W			0.60										Misty Rain	28			
	29	30.080	56	30.000	56.5	55	45			52	50	52	50.5	WSW	W			2.30										Showers	29			
	30	29.800	56	29.836	55	55	47			48	48	48.3	48.3	SW	W			3.30										Misty Rain	30			
	31	30.044	56	30.170	56	57.5	44.5			49.5	46	47.3	44.3	NNW	NNW			0.00										Clear	31			
Sums.		1216	8	1117	92	147	174			148	168	179	156					947													NOTATION USED IN GENERAL REMARKS.	
Means.		133	52.9	30.140	53.5	59.0	42.0			50.7	46.5	48.1	45.0																		a. denotes aurora.	
+ Total Corrections for Instrumental Errors.																															m. denotes meteor.	
+ Corrections for Diurnal Range.																															ms. " meteors.	
"Corrected Means."																															n. " nimbus.	
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		ci. " cirrus.
																															ci-cu. " cirro-cumulus.	
																															ci-s. " cirro-stratus.	
																															cu. " cumulus.	
																															cu-s. " cumulo-stratus.	
																															d. " dew.	
																															f. " fog.	
																															fr. " frost.	
																															h-fr. " hoar-frost.	
																															h. " haze.	
																															h.d. " heavy dew.	
																															h. " hail.	
																															l. " lightning.	
																															li. cl. " light clouds.	
																															li. sh. " light showers.	
																															lu. co. " lunar corona.	
																															lu. ha. " lunar halo.	

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction^{††} for Temp. (Col. 2), = *30.133* ... = *0.66* } = *30.067*
"Corrected Mean" of Barometer at 9 P.M., minus the Correction^{††} for Temp. (Col. 4), = *30.140* ... = *0.68* } = *30.072*
Mean at Station, corrected, and at 32°, = *30.070*
Correction for height, feet above Mean Sea-level, = *127*
Mean, reduced to 32°, and Sea-level, = *30.197*
Highest Reading, corrected for Index error, on the 9 th, = *30.490*
Lowest Do. Do. on the

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at *Marone Cottage, Rosedale, County of Nute*, in Lat. $55^{\circ}49'50''$ N, Long. $5^{\circ}4'5''$ W, Distance from Sea 10 miles.
Height of Cistern of the Barometer above Mean Sea-level 116 feet, above Ground 4 feet. During the MONTH of *June* 187*6*.
The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.		SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. 7091				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc. Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.					
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.											
		Barometer. * No. 1	Attached Thermometer.	Barometer. No. 1	Attached Thermometer.	Max. No. 1131	Min. No. 1136	Max. in Sun's rays No. 1137	Min. on Grass. No. 1138	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Readings of the H. Cup Anemometer. No. 1139	No. of hours in which it fell.	Amount in inches. No. 1140	Velocity (0-6), and Direction.	Amount (0-10), and Species.	Velocity (0-6), and Direction.	Amount (0-10), and Species.					No. 8 inches.	No. 12 inches.	No. 22 inches.		
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°					°	°	°	°	°
	1	30.156	60	30.110	61	62	39.5			57	57.3	57	49.2	SSW	Calm					0.00								Cloudy - very fine	1				
	2	30.040	60	29.882	58	63.5	45			56	53	53.2	57.5	SW	SW					0.00								Cloudy - warm	2				
	3	29.534	58	29.408	55	53.5	43.5			52	50.2	45.5	42	SE	W					5.50								Not day	3				
	4	29.598	55	29.520	54	56	42.3			50	46	47.5	46.3	WSW	S					6.90								Stormy night - m. wet & cloudy	4				
	5	29.516	56	29.828	56	54	43			52	45.3	48	44.5	SW	SW					0.35								Stormy night - m. wet & cloudy	5				
	6	29.854	59	29.730	56	58	45.5			52.5	47.5	47.2	45.5	SW	SW					2.90								Clear & cloudy	6				
	7	29.730	59	29.760	57	55	44.5			52.5	48	47.5	45.3	SW	SW					1.55								Shower - day	7				
	8	29.708	56	29.690	56	56.5	46			47.5	45.8	49.2	40.5	SW	W					0.25								1/2 clear - cloudy	8				
	9	29.816	58	30.056	58	61.5	44			52.5	48	50	46	NW	NW					0.01								1/2 clear - cloudy	9				
	10	30.208	60	30.186	58	59.3	39.5			53.8	47.8	52.2	48.5	NW	NW					0.00								3/4 clear - gentle breeze	10				
	11	30.062	62	30.016	59	60	50.5			59	55	52.5	57.6	S	W					0.93								Cloudy - very fine	11				
	12	29.980	58	29.926	58	60.5	46.5			52.5	47.2	47	45	Calm	Calm					0.01								do do	12				
	13	29.926	58	29.960	61	58.5	42.5			50.5	46.5	50	46.6	W	W					0.00								1/2 clear - breezy	13				
	14	29.882	63	29.662	57	58.8	40.5			55.5	50	52	50.5	SE	SSW					2.23								1/2 do do	14				
	15	29.596	59	29.640	57	59.5	45.5			53	49.3	46	44.5	SW	SW					0.02								1/2 do fine	15				
	16	29.680	59	29.684	58	58	43.3			52.5	48.2	50	47.3	SW	SW					0.15								Cloudy - gentle breeze	16				
	17	29.590	58	29.392	55	54.5	45.5			52	49	50	48.5	S	SW					4.10								Cloudy - cloudy	17				
	18	29.774	57	29.880	59	59.5	48.5			52.5	50.2	53.2	50.2	W	S					0.01								do do	18				
	19	29.858	58	29.922	59	58.3	50.5			54	53.2	55	53.3	S	SE					0.00								Heavy & cloudy	19				
	20	29.956	70	29.954	68	77	51.5			70	63.5	65	61.8	SE	SE					0.00								Clear & breezy - warm winds	20				
	21	29.892	68	29.912	66	75	54			64.5	60.5	53	54.5	ENE	Calm					5.35								do - warm winds - sudden change 5.30 P.M. - heavy showers	21				
	22	29.984	65	30.030	60	65.5	52			57	55.5	53	52.5	Calm	Calm					2.60								Cloudy & mild	22				
	23	29.466	60	30.028	61	58	52.5			55.2	53	56	55.5	NE	NE					7.55								Heavy rain	23				
	24	30.048	64	30.086	63	71	50			62.5	58.3	60	55	E	E					0.00								Clear - breezy - fine	24				
	25	30.202	68	30.164	69	79	50			66	57	65	61	NE	NE					0.00								Clear & hot	25				
	26	30.144	74	30.124	70	79.5	55			75	66	65	59.5	Calm	NW					0.00								do do	26				
	27	30.192	73	30.194	65	72	52			68	63	55	52	WNW	WNW					0.00								do do	27				
	28	30.156	64	30.078	58	60	50.5			55.5	52.5	51	49.5	WNW	WNW					0.00								Cloudy & cloudy	28				
	29	30.004	63	29.950	59	62	48.5			57	53	57.2	49.8	WNW	WNW					0.00								1/2 clear - breezy	29				
	30	29.884	60	29.836	61	64.3	46.3			57.5	53	56	55	WSW	WSW					4.08								1/2 clear fine	30				
	31																													31			
Sums.		1616.12	15	1515.9	17	167	119			127	86	123	151							44.09										NOTATION USED IN GENERAL REMARKS.			
Means.		29.881	61.4	29.889	59.7	62.3	46.9			56.5	52.4	52.7	50.4							44.49										a. denotes aurora.			
† Total Corrections for Instrumental Errors.																															m. denotes meteor.		
† Corrections for Diurnal Range.																															ci. cirrus.		
"Corrected Means."																															ci-cu. cirro-cumulus.		
No. of Column.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	ci-s. cirro-stratus.	
																																cu. cumulus.	
																																	cu-s. cumulo-stratus.
																																	d. dew.
																																	f. fog.
																																	fr. frost.
																																	h-fr. hoar-frost.
																																	h. haze.
																																	h-d. heavy dew.
																																	hl. hail.
																																	l. lightning.
																																	li-cl. light clouds.
																																	li-sh. light showers.
																																	lu-co. lunar corona.
																																	lu-ha. lunar halo.
																											</						

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2), = 29.793
"Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 29.806
Mean at Station, corrected, and at 32°, = 29.800
Correction for height, feet above Mean Sea-level, = 126
Mean, reduced to 32°, and Sea-level, = 29.926
Highest Reading, corrected for Index error, on the 10 th, = 30.245
Lowest Do. Do., on the 17 th, = 29.392
Difference, or Monthly Range, = 0.853

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 26 th, = 79.5
Lowest in Month, corrected for Index errors, on the 1 th, = 39.5
Difference, or Monthly Range, = 40.0
"Corrected Mean" of all the Highest, (Col. 5), = 62.3
"Corrected Mean" of all the Lowest, (Col. 6), = 46.9
Difference, or Mean Daily Range, = 15.4
** Calculated Mean Temperature of Month, = 54.6
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, =
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, =
Lowest at Night, Black Bulb, (corrected for Index errors), on the th, =
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, =
Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 54.6
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 51.4
† Computed Temperature of Dew-Point, = 48.6
† Do. Elastic Force of Vapour, = $.338$
† Do. Weight of Vapour in a Cubic Foot of Air, =
† Relative Humidity, (Saturation = 100), = 79
RAIN fell on 18 Days; Amount in Inches, = 4.45

WIND.		SUMMARY.							
Direction.	N	NE	E	SE	S	SW	W	NW	Mean Velocity in miles per day.
A.M.	2	2	2	5	9	6	3	1	
P.M.	2	1	2	3	8	6	5	3	
Mean.	0	2	2	4	8	6	4	2	

Observations made and
Return verified by

James Hay

(Signed)

James Hay

Friday June 1896

To

Secretary of the Meteorological Society of Scotland.

disease prevails among cattle; and the Agricultural condition of the district generally.

FOREST TREES.	Alder,	Beech,	Birch,	Elm,	Larch,	Linne,	Oak,	Sycamore or Plane,
in Flower.								
in Leaf buds								
First appear.								
In Leaf.								
Droves of Leaves.								
mentioned variety.	Barley,	Bere or Bigg,	Oats,	Wheat,	Beans,	Pease,	Potatoes,	Rye Grass,
Plowing.								
Sowing or above ground.								
in Ear.								
First Cut								
or Mashed.								

maximum, and ending, as well as such notes on Storms as have been taken at any one place, are entered under the heading of "Remarks," at the close of the above. When lofty hills are in the vicinity of a Station, the Height of Clouds and of the Snow-line in winter should be recorded.

By the use of abbreviations, the state of the weather at 9 A.M. and P.M. should be registered, either in two columns, otherwise unnecessary, or ruled off for the purpose from the column of Remarks.

Observations in connection with the Periodic Return of the Seasons possess not only great scientific value, but are also of considerable importance in connection with the Agriculture, Horticulture, and Natural History. The Council would direct the special attention of Observers to the registration of such phenomena, so that the published Summaries may fairly represent the whole of Scotland.

Observations ought to be confined to individual trees and shrubs; to particular species of birds; and, in the case of frogs, to species known to breed yearly on a selected piece of ground or farm.

The Annual Table, published yearly in the Society's Journal, will indicate the species of plants and animals to which special attention is more particularly directed.

(By Order)

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Tide Gauge Many causes conspire to produce anomalies in Rain Return arising partly from the difficulty of obtaining a perfectly unobstructed situation for observation and partly from the defective nature of the instruments used. The Rain-Gauge should not be placed on a slope or terrace, but on a level Piece of ground, in as open a situation as the Observer can secure for it. As it is often difficult to obtain a position free from trees and unobscured by surrounding objects as is desirable, care should be taken to place it at some distance from shrubs, trees, buildings or other Obstructions, at least as many feet from their base as they are in height. The more important directions towards which it is most desirable to have a free exposure, are in the order of their importance, N.E., S.E., S., and W. The rim of the Gauge must be perfectly level, and fixed so that it will remain level in all weathers, and be at a height of one foot above ground, over grass. In such gauges as Fleming's, which are furnished with a measuring rod attached to a float, the rod ought to be fixed down, and the float rise to its height only at the time the instrument is read, it being found that a stem projecting above the rim of the

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Fortunately, Spirit Thermometers may be easily set right by one, when the column of spirit chances to separate. Let the thermometer be taken in the hand by the end furthest from the bulb, raised above the head, and then forcibly swung down towards the feet; the object being on the principle of centrifugal force, to send down the detached portion of spirit till it unites with the column. A few draws, or swinging strokes, will generally be sufficient for the purpose; after which the thermometer should be placed in a slanting position, to allow the rest of the spiritus sal. adu. to settle in the bottom of the tube, to draw down to the column. But another method must be adopted, if the portion of spirit in the top of the tube be small. Heat should be applied slowly and cautiously to the top of the tube, till the spirit is sufficiently expanded to rise, and being turned into vapor by the detached portion of spirit is, which will be the cause of the column of spirit being drawn down to the bottom of the unbroken column of spirit. For if this be taken that the heat is not applied too quickly; for if it be done, the tube will break and the instrument be destroyed. The best way to apply the requisite amount of heat, is by bringing the end of the tube slowly down towards a minute flame from a gas-burner; or if gas be not at hand, a piece of heated metal will serve instead.

The Hydrometer in use at the Society's Stations consists of two Thermometers usually, but not necessarily, mounted on one frame. As apparently slight deviations from the approved form of this apparatus seriously vitiates the Hydrometrical Observations, Observers are specially requested to attend to the following conditions.—The bulbs must hang down by at least an inch Two from the scales and frame to which they are attached; the frame must be such as will bring the scales forward by an inch from any board on which it may be suspended; the water-cup must be covered, and altogether placed to the side, and a little below the level of the wet bulb, but in no case under the bulb; the muslin must be of medium fineness and fastened at the neck of the bulb by the cotton, which also supplies it with water. It must be seen to by the Observer that the muslin is always clean and moist, and the water pure. In frosty weather, observation is a matter of much delicacy, and must be avoided with care.

The Hygrometer is read at 9 a.m. and 9 p.m. The Soil-Registering Thermometers are read at 9 p.m. only, as indicating the greatest and least degrees of temperature in the 24 hours preceding. It is not a matter of indifference when the Soil-Registering Thermometers are read, since, in winter of the extreme dry season, the extremes may occur at any hour, and it is necessary to refer their occurrence to their type—single, double, etc. In the Society's publications, the indications registered on the 24 and 30 days of a series of phenomena are summarized at 3 p.m. on the 25th and 31st.

No instrument can be used for Meteorological purposes till it has been carefully tested by comparison with a Standard Thermometer. We can thus determine the errors of each Thermometer. When such an error occurs, we are not gratified on the one hand, as we have no ground on which to rely, and on the other, as we may not imagine that the error will be constant from position to position on the Scale, and might very easily be altered by some cause without being re-tested. The Self-Registering, especially the Minimum Thermometers, ought frequently to be compared with the dry bulb of the Hygrometer. The freezing-point of each Thermometer, marked by a scratch on the tube, ought to be tested once in a year, in snow or melting ice.

In selecting instruments the following points require attention.—The divisions of the venier of Barometers in reference to their scales. The perfectness of the Venier of the aneroid, and the correct number of the perfect degrees of the Barometer from air; the correct num-

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The Barometer in which the error arising from the fluctuating surface of the mercury in the cistern is entirely got rid of is Fortin's Barometer; the arrangement consisting in applying pressure by means of a screw to the bottom of the cistern, which is made of a flexible leather, thus raising or depressing the surface till it just meets the very point which forms the zero point of the fixed scale.

The Barometer originally constructed by Mr. Alt of London, and usually called the Board of Trade Barometer, has the great convenience of requiring no adjustment of the cistern. Its scale-indices are not true inches, but so much shorter as to compensate the error that would otherwise arise from the fluctuations of the surface of mercury in the cistern. This is an excellent Barometer for ordinary Observers, inasmuch as it entirely eliminates the error of observation likely to arise in not a few cases in setting the instrument to the zero point of the fixed scale when the light is not good. To show the accuracy with which these Barometers are made, it may be stated, that one was compared, during a whole year, with the Society's Standard Barometer, particular care being given to make the comparison when atmospheric pressure was rising or

be put behind the tube. It must be hung truly perpendicular, and exposed to neither the sun's direct rays nor the heat of a fire. The observer must be seated, and must not be hung against a wall heated by a fire. The object being to secure that the whole instrument, including the brass fittings, the contained mercury, and the attached Thermometer shall be at one uniform temperature, it is evident that the best position is that which is least liable to sudden changes of temperature.

In taking an Observation, the Attached Thermometer is first noted; the tube must then be gently tapped and the system adjusted most carefully made. The eye by raising and lowering it, must be brought into the plane of the back and front of the index—usually the lower edge of the venier, which must be carefully adjusted so as to touch exactly a tangent to the convex surface of the mercury in the tube. Observations must be taken quickly, so as to prevent the observer's hands and person from affecting the mercury, and care must be taken to facilitate, by constant adjustment, reading.

above the mercury in the tube is a complete vacuum; this is the case if, on inclining the instrument, a sharp up is produced when the mercury strikes the top of the tube. If a dull tap is heard, there is air in the tube, which must be got rid of.

As Barometers are liable to be deranged by the introduction of air into their tubes, on removal from place to place, or on being roughly handled, it may be useful to Observers to know how the air may be expelled. First close up the system by screwing the ivory peg tight, so as to prevent the escape of mercury; then screw up the top half inch from the top of the tube, and having

mercury inverted as the bottom, gently tap on the eastern with the palm of the hand so as to induce the air to ascend through the tube to the cistem, whence it may escape. Since there is the weight of two atmospheres—the pressure of the mercury in the Barometer, and the air outside—pressing on any air that may be inside the tube, it is usually a tedious operation to get it wholly expelled. After repeated trials, however, this generally accomplished; and the clear metallic sound of the mercury, when gently struck against the top of the glass tube, will show when the whole of the mercury has been expelled. On hanging up the Barometer, care must be taken to screw down the mercury in the tube before unscrewing the cork of the cistem, for if this be not attended to, the mercury will flow out, and the instrument be seriously damaged.

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Barons Crag, Pictou, County of Pictou, in Lat. 55° 49' 50", Long. 5° 4' 5", Distance from Sea 8 miles.
Height of Cistern of the Barometer above Mean Sea-level 116 feet, above Ground 4 feet. During the MONTH of July 1876.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. — 1097				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.				SEA.	OZONE.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc. Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.
		9 h. A.M.		9 h. P.M.		Protected in Shade 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.									
		Barometer.	Attached Thermometer.	Barometer.	Attached Thermometer.	Max. No.	Min. No.	Max. in Sun's rays.	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Readings of the H. Cup Anemometer.	No. of hours in which it fell.	Amount in inches.	Velocity (0—6), and Direction.	Amount (0—10), and Direction.	Velocity (0—6), and Direction.	Amount (0—10), and Direction.	No. 3 inches.	No. 12 inches.	No. 22 inches.				
		* No. 1	°	No. 4	°	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1	No. 1				
	1	29.696	60	29.700	61	60	53			54.8	54.2	57	56.3	SW	W			280											misty Rain	1	
	2	29.870	62	30.050	58	60.5	47			56	52.3	47.5	45.5	W	WNW			0.00											1/2 clear - breezy	2	
	3	30.018	64	29.778	62	63	42.5			58.5	54.5	57.5	57	SE	SW			1.00											cloudy but fine	3	
	4	29.906	59	29.850	58	59	50			54	50.8	53	51.2	W	SE			0.15											cloudy & breezy	4	
	5	29.582	64	29.766	59	62.5	50			64.6	56.5	53	50.5	SW	SW			0.00											do	5	
	6	29.874	61	29.850	62	63.3	51			56	52	56.5	54	SW	calm			0.00											do	6	
	7	29.680	59	29.570	61	61	52.3			55.3	52.2	56	56	NE	SE			5.63											cloudy & dull - heavy rain evening	7	
	8	29.586	62	29.770	61	66	54			59	58	56.8	56	SW	SW			1.23											do	8	
	9	29.618	59	29.728	59	59	48.5			54.5	53.5	50.5	48.5	S	WSW			3.50											Three gale after midday - showers	9	
	10	29.662	57	29.876	55	55	43.5			52.5	50.5	52	50	WSW	W			0.90											Hail blast from - gale all day with rain	10	
	11	30.142	56	30.312	59	60	49			53.5	50.5	52.3	49.5	W	W			0.00											cloudy & breezy	11	
	12	30.276	57	30.276	59	58.5	45			55	52	56	56	SW	SW			0.15											cloudy & dull	12	
	13	30.338	62	30.332	62	67	54.5			61.3	60.5	60	59	SW	calm			0.00											cloudy & mild	13	
	14	30.380	64	30.412	61	63.5	53.3			64	60.8	67	55.5	WSW	calm			0.00											1/2 clear - warm	14	
	15	30.434	68	30.354	67	75.6	48.5			65.5	61.3	62.3	58	NE	calm			0.00											clear & hot	15	
	16	30.266	72	30.216	66	77.5	54			71.3	64	59	57	SSW	W			0.00											do	16	
	17	30.288	63	30.304	61	62.5	51			56	52	52	50	NW	NW			0.00											1/2 clear breezy	17	
	18	30.194	59	30.052	60	58	48.5			54	51.5	56.5	55	WSW	W			0.53											cloudy & breezy	18	
	19	30.128	61	30.196	61	67	54.5			58.5	57.3	57.3	56	WNW	WNW			0.00											do	19	
	20	30.226	62	30.190	61	63	50.5			55.5	52	54	51.5	W	W			0.00											1/2 clear breezy	20	
	21	30.140	61	30.062	65	70.2	48.5			59	56.5	61.2	58.8	WSW	WSW			1.50											Dull mild - lightning SW to S.W.	21	
	22	29.962	63	29.972	62	63	52.5			59	58	53	57.5	NE	WNW			0.66											Dull - several peals of thunder S & SE morning	22	
	23	30.016	64	30.070	61	67.5	50			61.3	57	52	50.3	NW	NW			0.00											1/2 clear warm	23	
	24	30.012	62	30.196	60	63.5	46.5			57.5	54.5	56	49	W	WNW			0.00											cloudy & breezy	24	
	25	30.150	60	29.930	60	60	"			55	52	57	57	W	SW			3.90											cloudy - wet evening	25	
	26	29.870	61	29.870	60	62	"			58	54	49	47	W	W			0.00											clear & warm	26	
	27	30.150	63	29.820	60	62	"			55.5	50	54	52	SW	SW			1.35											do	27	
	28	29.384	57	29.418	58	59	49			52	57.6	54	52	S	W			1.80											Int. clouds	28	
	29	29.628	61	29.722	60	60	50.5			55	52	52.6	52	W	SW			1.78											1/2 clear - breezy	29	
	30	29.560	59	29.600	60	60.5	54			57.5	56	56.5	56	S	SW			4.45											cloudy & breezy	30	
	31	29.488	58	29.556	55	58	45			51.5	50	46	44.5	W	WNW			2.20												Dull & breezy	31
	Sums.	13 17 12	43	29 798	14 936	11 4				15 8	10 8	13 5	15 5					3355													
	Means.	29.452	61.4	29.961	60.5	63.0	49.9			57.4	54.6	54.5	53.0																		
	† Total Corrections for Instrumental Errors.																														
	† Corrections for Diurnal Range.																														
	"Corrected Means."																														
	No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† = 29.864
for Temp. (Col. 2), = 29.864 - 0.088 = 29.776
"Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 29.875
for Temp. (Col. 4), = 29.875 - 0.061 = 29.814
Mean at Station, corrected, and at 32° = 29.870
Correction for height, feet above Mean Sea-level, = 1.25
Mean, reduced to 32°, and Sea-level, = 29.995
Highest Reading, corrected for Index error, on the 15th, = 30.434
Lowest Do. Do., on the 28th, = 29.384
Difference, or Monthly Range, = 1.050

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 16th, = 77.5
Lowest in Month, corrected for Index errors, on the 3th, = 42.5
Difference, or Monthly Range, = 35.0
"Corrected Mean" of all the Highest, (Col. 5), = 63.0
"Corrected Mean" of all the Lowest, (Col. 6), = 49.9
Difference, or Mean Daily Range, = 13.1
** Calculated Mean Temperature of Month, = 56.4
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 16th, = 77.5
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 77.5
Lowest at Night, Black Bulb, (corrected for Index errors), on the 3th, = 42.5
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 42.5
Difference of above Means or Range ("exposed"), = 35.0

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 56.0
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 53.8
†† Computed Temperature of Dew-Point, = 51.7
†† Do. Elastic Force of Vapour, = 3.78
†† Do. Weight of Vapour in a Cubic Foot of Air, = 86
†† Relative Humidity, (Saturation = 100), = 86
RAIN fell on 17 Days; Amount in Inches, = 5.56

WIND.		SUMMARY.			
Direction.		N	NE	E	SE
A.M.		2		4	8
P.M.			2	8	15
Mean.		0	1	0	1

Observations made and
Return verified by

James May

(Signed)

James May

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Baron Cottage, County of Perth, in Lat. 55° 49' 54" Long. 5° 4' 5", Distance from Sea 10 miles.
Height of Cistern of the Barometer above Mean Sea-level 116 feet, above Ground 4 feet. During the MONTH of August 1876

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. 1091				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.				SEA.	OZONE.	GENERAL REMARKS.		Days of Month.
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.										
		Barometer. No. 1	Attached Thermometer	Barometer. No. 1	Attached Thermometer	Max. No. 1	Min. No. 1	Max. in Sun's rays No. 1	Min. on Grass. No. 1	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Readings of the H. Cup Anemometer. No. 1	No. of hours in which it fell.	Amount in inches. No. 1	Velocity (0-5). and Direction.	Amount (0-10). and Species.	Velocity (0-5). and Direction.	Amount (0-10). and Species.	No. 3 inches.	No. 12 inches.	No. 22 inches.					
		Inches.		Inches.																												
	1	29.690	57	29.668	57	59	12.5			50.2	18	51.5	49.5	W	W					2.70										Cloudy, blowy	1	
	2	29.656	60	29.410	57	59	16			58	55.4	54.5	52.5	SE	SE					1.015										blow	2	
	3	28.992	58	29.412	58	57	51			55.5	55.3	53	51	SE	W					5.08										Heavy Rain after noon	3	
	4	29.640	60	29.814	58	59	50			57.5	54	52.5	50.5	W	W					0.25										Cloudy & blowy	4	
	5	29.978	59	30.082	60	62	3.50			56.5	54	54.5	53.5	W	W					1.50										Cloudy & blowy	5	
	6	30.000	60	29.890	60	59	51.3			56.5	56	57.5	57.3	SW	W					5.40										Cloudy & blowy	6	
	7	29.904	59	29.990	60	59	54.5			56.3	56	56.5	56	SW	SW					1.00										Cloudy & blowy	7	
	8	30.038	63	30.020	63	67	54.5			61.5	59.5	59.2	58	SW	S					0.02										Cloudy & blowy	8	
	9	29.880	62	30.018	59	63	50			58	57	53	51	SE	W					2.50										Cloudy & blowy	9	
	10	30.200	59	30.250	61	64	50			56.5	54	57	54.2	W	SW					0.00										Cloudy & blowy	10	
	11	30.250	65	30.214	60	68	47.5			61	57.5	54	52.5	SW	SW					0.00										Cloudy & blowy	11	
	12	30.196	65	30.080	60	74	47.5			63	59.2	61.5	59	S	SW					0.04										Cloudy & blowy	12	
	13	30.000	67	29.924	70	75	57.5			63.5	59	61	52.5	NE	NE					0.00										Cloudy & blowy	13	
	14	29.936	69	29.908	68	82	59.5			69	64.8	65	63	NE	NE					0.00										Cloudy & blowy	14	
	15	29.956	70	29.994	65	72	56			68.6	65.2	59	57	SW	NE					0.00										Cloudy & blowy	15	
	16	30.014	63	30.028	67	73	55.5			61	58.3	63	57	NE	ENE					0.00										Cloudy & blowy	16	
	17	30.030	65	30.014	65	68	54.5			62	58.8	60	59	NE	NE					0.00										Cloudy & blowy	17	
	18	30.026	67	30.028	66	75	53			64	62	62	57.5	NE	ENE					0.00										Cloudy & blowy	18	
	19	30.004	64	29.986	67	75	57.5			61.8	59.5	62	57.2	NE	NE					0.00										Cloudy & blowy	19	
	20	29.960	69	29.900	68	76	56			66	60.3	65.5	59.5	NE	NE					0.00										Cloudy & blowy	20	
	21	29.886	66	29.850	63	67	56			65	61.5	57	56.5	NE	NW					0.02										Cloudy & blowy	21	
	22	29.828	61	29.850	59	61	47			56.5	57.5	50	47	WNW	NW					0.00										Cloudy & blowy	22	
	23	29.780	60	29.840	58	60	47			55.2	50	50.5	50.5	WNW	NW					0.01										Cloudy & blowy	23	
	24	29.800	61	29.890	56	60	46			55	54.5	47	43	NW	NW					0.00										Cloudy & blowy	24	
	25	29.956	57	29.990	59	62	39			57	48.5	52	49	NW	NW					0.01										Cloudy & blowy	25	
	26	29.764	57	29.482	54	59	50			53.5	51.5	51	49.3	W	W					0.85										Cloudy & blowy	26	
	27	29.636	59	29.850	60	64	49			56	53	52	50.5	WNW	W					2.80										Cloudy & blowy	27	
	28	29.700	61	29.624	58	60	49.5			54	53.5	44	42.2	W	W					9.00										Cloudy & blowy	28	
	29	29.522	57	29.638	59	61	49			50	49	57.5	50.5	W	W					2.00										Cloudy & blowy	29	
	30	29.470	60	29.050	56	61	48.5			55.5	53.5	50.5	50	SW	E					1.35										Cloudy & blowy	30	
	31	29.176	56	29.418	59	61	47			55	50.5	52.5	49.5	WNW	NW					0.00										Cloudy & blowy	31	
Sum.		1713.9	14	1714.9	15	1880.2	73			291.1	168	116	157							54.59												
Means.		29.811	61.5	29.849	60.8	61.4	50.9			58.7	55.4	55.5	53.1																			
+ Total Corrections for Instrumental Errors.																																
+ Corrections for Diurnal Range.																																
+ Corrected Means.																																
No. of Column.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction $\dagger\dagger$ for Temp. (Col. 2), = 29.753
"Corrected Mean" of Barometer at 9 P.M., minus the Correction $\dagger\dagger$ for Temp. (Col. 4), = 29.763
Mean at Station, corrected, and at 32°, = 29.758
Correction for height, feet above Mean Sea-level, = 1.25
Mean, reduced to 32°, and Sea-level, = 29.883
Highest Reading, corrected for Index error, on the 10 th, = 30.250
Lowest Do. Do., on the 3 th, = 28.992
Difference, or Monthly Range, = 1.258

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 14 th, = 82.1
Lowest in Month, corrected for Index errors, on the 25 th, = 39.0
Difference, or Monthly Range, = 43.0
"Corrected Mean" of all the Highest, (Col. 5), = 65.4
"Corrected Mean" of all the Lowest, (Col. 6), = 50.9
Difference, or Mean Daily Range, = 14.5
** Calculated Mean Temperature of Month, = 58.2
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, =
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, =
Lowest at Night, Black Bulb, (corrected for Index errors), on the th, =
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, =
Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 57.1
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 54.5
Computed Temperature of Dew-Point, = 52.1
Do. Elastic Force of Vapour, = 390
Do. Weight of Vapour in a Cubic Foot of Air, =
Relative Humidity, (Saturation = 100), = 83
RAIN fell on 17 Days; Amount in Inches, = 5.49

WIND.		SUMMARY.					
Direction.		N	NE	E	SE	S	SW
A.M.							
P.M.							
Mean.							

Observations made and
Return verified by

Garnet Hony

Note:

The corn crop has ripened rapidly with the clear warm weather during the month - nearly making up what it was behind last month. Harvesting begins on the 14th. general harvest by the end of month.
Aug. 31st - 10/6.

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Barrow Cottage, Pictou County of Pictou, in Lat. 55° 49' 50", Long. 54° 15', Distance from Sea 10 miles.
Height of Cistern of the Barometer above Mean Sea-level 116 feet, above Ground 4 feet.
During the MONTH of September 1876.
The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. — 1091				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.				SEA.	OZONE.	GENERAL REMARKS.		Days of Month.					
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.		P.M.		As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Deposition or Elevation of Barometer, Prevalent Diseases, etc.											
		Barometer. No. —	Attach- ed Ther- mometer	Barometer. No. —	Attach- ed Ther- mometer	Max. No. —	Min. No. —	Max. in Sun's rays No. —	Min. on Grass. No. —	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	No. of hours in which it fell.	Amount in inches.	Velocity (0—5), and Direction.	Amount (0—10), and Species.	Velocity (0—5), and Direction.	Amount (0—10), and Species.	No. —	3 inches.	12 inches.	No. —			22 inches.	Mention the hour at which Storms, including Thunder and Lightning, began and ended.						
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°			°	°		°	°			
	1	29.600	59	29.680	59	63	14			56	50.5	54	52	NW	NW															Clear & fine	Cloudy & calm	1					
	2	29.496	58	29.850	57	57.8	14			53.8	50.8	45	42.5	NW	NW															Clear — Dull	Clear breezy	2					
	3	29.900	58	29.800	59	59.2	37			53	47	47	45	SW	S															Clear & fine	Dull	3					
	4	29.460	58	29.400	60	61.5	16.5			50.8	50.3	56.5	56.3	E	SSE															Musty Rain	Cloudy & dull	4					
	5	29.180	60	29.292	59	61.5	53			56	54.5	54	50	SW	SW																Cloudy & blowing	Clear — breezy	5				
	6	29.228	58	29.430	60	59	50.5			54.5	53.5	51	50	NSW	Calm																Cloudy & dull	Cloudy & dull	6				
	7	29.444	58	29.510	60	58	46.2			54	51	50.2	47.2	W	NNW																Cloudy & dry	d.	7				
	8	29.584	56	29.550	57	57.5	41.5			51	50	51	50.5	W	W																Cloudy & dull	Showers	8				
	9	29.696	56	29.430	58	60	44.5			54.5	52.3	47.5	46.5	NW	NW																Steady	Clear — calm	9				
	10	29.772	60	29.784	57	59.5	44.5			55	52	45.5	43.5	NW	NW																Clear — blowing	d.	10				
	11	29.750	54	29.830	55	54.5	42.5			50	47.5	46	43	NW	NW																Cloudy & blowing	Clear & blowing	11				
	12	29.850	54	29.860	56	55.5	43			49	45	49	46	NW	NW																Clear — cloudy	Clear & blowing	12				
	13	29.836	57	29.804	57	60	46.5			54.5	51	47.5	45.5	NNW	NW																Clear — breezy	Clear — calm	13				
	14	29.496	59	29.466	60	62.5	29.5			54.3	50.5	46.2	45.5	NW	NW																Clear & fine	Clear & calm	14				
	15	29.416	58	29.662	59	63.3	39.5			53.5	51.3	48	47.2	S	Calm																d.	d.	Heavy sky	15			
	16	29.620	56	29.574	57	60	45			51.6	50.3	52	51	N	S																Dull & heavy	Showers — calm	16				
	17	29.584	59	29.600	57	62	48			55	53	48.3	48	SW	N?																Clear — calm	Clear & calm	17				
	18	29.700	55	29.944	59	62.5	45			52.6	52.2	50	48.6	NW	Calm																Cloudy & dull	d.	d.	18			
	19	30.138	57	30.256	59	58.5	41			53.2	49.2	47.2	45.6	NW	Calm																Clear — breezy	Dull & calm	19				
	20	30.280	55	30.220	57	55	44.5			49	47	54.5	53	NE	SE																Dull — breezy	Dull & calm	20				
	21	30.100	58	29.980	59	62.5	52			56	54.2	56	54	E	Calm																d.	d.	Dull & calm	21			
	22	29.882	59	29.764	61	64	53			58	55.6	58.5	57	NE	SE																	d.	d.	Dull & calm	22		
	23	29.716	59	29.740	60	64.5	50			56.5	56	50.3	50.3	S	E																d.	Heavy Rain	Dull & calm	23			
	24	29.636	60	29.500	58	59.5	48.5			55	54.3	54	53.5	NE	NE																d.	Heavy	Dull — breezy	24			
	25	29.708	59	29.810	60	60.5	52.5			57.2	56	53.5	52.5	NW	Calm																	Clear — breezy	Dull & calm	25			
	26	29.690	57	29.778	60	59	49			52.5	52	54	53.2	Calm	NE																	Dull & heavy	Cloudy & dull	26			
	27	29.716	59	29.656	57	63.5	48			55.5	54.5	49	48	NE	E																	Clear & warm	Heavy sky — breezy	27			
	28	29.532	57	29.580	55	60.5	44			54	52	47	46	NE	NE																	Clear & fine	Heavy — calm	28			
	29	29.644	55	29.824	54	57.2	45			54	51	48	46	NE	E																	Cloudy	Heavy — calm	29			
	30	29.722	50	29.730	52	58.5	40			47.2	44	45	43	NE	NE																	Clear — breezy	Cloudy & breezy	30			
	31																																				31
Suras.		1819	15	1715	15	134	136			1072	385	156	156																			NOTATION USED IN GENERAL REMARKS.					
Means.		29.709	573	29.727	579	59.9	45.6			53.6	51.3	50.2	48.7																								
Total Corrections for Instrumental Errors.																																					
Corrections for Diurnal Range.																																					
Corrected Means.																																					
No. of Columns.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction $\frac{1}{2}$ for Temp. (Col. 2), = 29.631
"Corrected Mean" of Barometer at 9 P.M., minus the Correction $\frac{1}{2}$ for Temp. (Col. 4), = 29.648
Mean at Station, corrected, and at 32°, = 29.640
Correction for height, feet above Mean Sea-level, = 126
Mean, reduced to 32°, and Sea-level, = 29.766
Highest Reading, corrected for Index error, on the 20th, = 30.276
Lowest Do. Do., on the 5th, = 29.176
Difference, or Monthly Range, = 1.100

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 23th, = 64.5
Lowest in Month, corrected for Index errors, on the 3th, = 37.0
Difference, or Monthly Range, = 27.5
"Corrected Mean" of all the Highest, (Col. 5), = 59.9
"Corrected Mean" of all the Lowest, (Col. 6), = 45.6
Difference, or Mean Daily Range, = 14.3
** Calculated Mean Temperature of Month, = 52.5
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 23th, = 64.5
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 64.5
Lowest at Night, Black Bulb, (corrected for Index errors), on the 3th, = 37.0
"Corrected Mean," (Col. 8), of Black Bulb, Min. on Grass, = 45.6
Difference of above Means or Range ("exposed"), = 17.9

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 51.9
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 50.0
Computed Temperature of Dew-Point, = 48.1
Do. Elastic Force of Vapour, = 336
Do. Weight of Vapour in a Cubic Foot of Air, = 87
Relative Humidity, (Saturation = 100), = 87
RAIN fell on 17 Days; Amount in Inches, = 2.89

WIND.		SUMMARY.	
Direction.	N	NE	E
A.M.	1	7	2
P.M.	1	5	3
Mean.	1	6	2

Observations made and Return verified by James Kerr (Signed) James Kerr
Note:— The corn crop, with a few exceptions, is now all secured. The weather, though showery at times, has been very favourable for harvest operations. Potatoes crop generally pretty free from disease. Turnip crop looks well but requires "filling-up" a good deal—
Sept. 30th/87/6. 16/12.

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Barone Cottage, County of Dute, in Lat. 55°49'50" N, Long. 5°45'W, Distance from Sea 10 miles.
Height of Cistern of the Barometer above Mean Sea-level 116 feet, above Ground 4 feet.

During the MONTH of October 1876.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.				SEA.	OZONE.	GENERAL REMARKS.		Days of Month.				
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Balls.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		Readings of the Hcup Anemometer. No. —		No. of hours in which it fell.	Amount in inches.	9 A.M.		P.M.		9 h. A.M.										
		Barometer. * No. —	Attach- ed Ther- mometer	Barometer. No. —	Attach- ed Ther- mometer	Max. No.	Min. No.	Max. in Sun's rays No. —	Min. on Grass. No. —	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direc- tion.	Force	Direc- tion.	Force	No. —	9 h. A.M.			Velocity (0—6), and Direc- tion.	Amount (0—10), and Species.	Velocity (0—6), and Direc- tion.	Amount (0—10), and Species.	SUNSHINE. Hours.	No. —						3 inches.	12 inches.	No. —	22 inches.
		Inches.	°	Inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°						°	°	°	°
1	29.966	53	30.156	51	57.5	40.3				57.5	47	43.5	41.5	NE		E			0.00														1			
2	30.130	50	29.990	52	57	38.5				47.2	44.5	49	47.5	E		E			3.50													2				
3	29.766	53	29.700	55	53.5	47				49	48.5	55	54	E		SE			6.40													3				
4	29.560	58	29.590	59	62	53.5				56.5	56.5	55	54	S		SW			0.05													4				
5	29.686	57	29.688	59	58	57.5				56	56	57.5	56	S		SE			1.30													5				
6	29.658	59	29.650	59	59	54.5				57	57	55.2	54.8	SE		SE			0.80													6				
7	29.650	60	29.730	60	61	54				58.5	57.5	57.2	55.5	S		SW			0.10													7				
8	29.800	59	29.580	59	61.5	52				55.2	54.5	54.2	54.2	S		SE			5.80													8				
9	29.222	59	29.200	59	59.5	52				56.6	56.2	53.2	57.6	SE		S			4.45													9				
10	29.200	57	29.080	54	55	47.5				53	49	48	44.6	S		SW			4.00													10				
11	28.856	55	28.630	53	55	46				52.5	52	47.2	45.2	S		S			4.50													11				
12	29.350	53	29.540	56	57.3	45.5				51.2	47.6	51.3	50	SW		S			2.50													12				
13	29.428	54	29.590	55	52.6	47.5				49	48.6	52	50	SE		SE			3.70													13				
14	29.290	54	29.510	54	53.5	46				51.5	51	49	46	SE		SE			2.80													14				
15	29.600	56	29.550	55	57	47.5				54	49.8	52.6	51	SW		SE			0.25													15				
16	29.400	55	29.342	55	54.5	49.5				51.5	50	51.5	51	SE		SE			4.30													16				
17	29.554	55	29.600	54	54	49				53.5	52.5	50.5	50	SE		SE			5.95													17				
18	29.422	57	29.662	59	56	49.5				54.3	54.5	54	54	calm		calm			1.56													18				
19	29.470	56	30.010	58	55	52				53.2	53.5	54.2	54	ENE		E			1.50													19				
20	30.160	57	30.214	57	55	51				53	52.5	52	50.8	E		ESE			0.00													20				
21	30.280	55	30.282	50	53	43				48.5	47	44	42	E		E			0.00													21				
22	30.290	49	30.266	51	57.0	42				46	43	40.5	47	E		E			0.00													22				
23	30.214	50	30.126	50	50	44				47	45.5	45	44	E		ESE			0.00													23				
24	30.080	50	30.140	50	49	44				47	45	46	44	ESE		SE			0.00													24				
25	30.176	51	30.210	53	53	43.5				49	47.2	52	51	SE		SE			0.00													25				
26	30.180	52	30.174	53	53	47				49.5	47.8	48.5	46.3	S		SE			0.00													26				
27	30.176	53	30.154	55	53	47				51.5	50.8	51	49	SE		E			0.02													27				
28	30.178	54	30.160	54	57	49				51.5	50.2	50.2	50	NW		W			0.60													28				
29	30.058	52	30.064	53	52.5	48				50	48.8	49.3	47	W		W			0.03													29				
30	30.130	48	30.216	47	50	39				43.5	43.3	39	36	NW		NW			0.00													30				
31	30.256	44	30.250	43	48	32.5				41	38	37	36	NNW		NW			0.00													31				
Sums.	12168	14	1185	14	146	166				167	160	155	145						6818																	
Means.	29.791	54.0	29.865	54.3	54.8	46.9				51.2	49.9	50.1	48.7																							
† Total Corrections for Instrumental Errors.																																				
† Corrections for Diurnal Range.																																				
"Corrected Means."																																				
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† = 29.723
for Temp. (Col. 2), = 29.791... - 0.068...
"Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 29.736
for Temp. (Col. 4), = 29.805... - 0.069...
Mean at Station, corrected, and at 32°... = 29.730
Correction for height, feet above Mean Sea-level, = 126
Mean, reduced to 32°, and Sea-level, = 29.856
Highest Reading, corrected for Index error, on the 22th, = 30.290
Lowest Do. Do., on the 11th, = 28.630
Difference, or Monthly Range, = 1.660

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 4th, = 62.0
Lowest in Month, corrected for Index errors, on the 31st, = 52.5
Difference, or Monthly Range, = 9.5
"Corrected Mean" of all the Highest, (Col. 5), = 54.8
"Corrected Mean" of all the Lowest, (Col. 6), = 46.9
Difference, or Mean Daily Range, = 7.9
** Calculated Mean Temperature of Month, = 50.8

S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, =
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, =
Lowest at Night, Black Bulb, (corrected for Index errors), on the th, =
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, =
Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 50.7
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 49.3
Computed Temperature of Dew-Point, = 47.8
Do. Elastic Force of Vapour, = 334
Do. Weight of Vapour in a Cubic Foot of Air, =
Relative Humidity, (Saturation = 100), = 90
RAIN fell on 24 Days; Amount in Inches, = 6.82

WIND.		SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.
A.M.	1	1	2	8	7	2	1	2	1		
P.M.			8	10	5	3	2	2	1		
Mean.	1	0	8	9	6	2	2	2	1		

Observations made and Return verified by

James May

(Signed)

James May

As ~~instructing~~^{indicating} ~~of~~ the students by the leaders can many mention
that Diadema one still it blown some Platanus streets, everywhere, Road &c.

Days of Month.
1
2
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31

BAROMETER, "corrected Mean" at 9 A.M., <i>minus</i> the Correction \uparrow		=	29.731
for Temp. (Col. 2), = 29.777 - .046		=	29.705
"Corrected Mean" of Barometer at 9 P.M., <i>minus</i> the Correction \uparrow		=	29.718
for Temp. (Col. 4), = 29.752 - .047		=	128
Mean at Station, corrected, and at 32°,.....		=	29.846
Correction for height, feet above Mean Sea-level,.....		=	
Mean, reduced to 32°, and Sea-level,.....		=	30.274
Highest Reading, corrected for Index error, on the 7 th,.....		=	29.258
Lowest Do. Do., on the 14th,.....		=	1.016
Difference, or Monthly Range ,.....		=	

S.-R. THERMOMETER, (in shade, etc.), **Highest in Month**, (corrected for Index Errors), on the 5th, = 58-0

Lowest in Month, corrected for Index errors, on the 10th, = 29-8

Difference, or **Monthly Range**, = 26-2

"Corrected **Mean**" of all the **Highest**, (Col. 5), = 47-0

"Corrected **Mean**" of all the **Lowest**, (Col. 6), = 38-1

Difference, or **Mean Daily Range**, = 8-9

**** Calculated Mean Temperature** of Month, = 42-5

S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 10th, = 58-0

"Corrected **Mean**," (Col. 7), of **Black Bulb, Max. in Sun**, = 47-0

Lowest at Night, Black Bulb, (corrected for Index errors), on the 10th, = 29-8

"Corrected **Mean**," (Col. 8), of **Black Bulb, Min.** on grass, = 38-1

Difference of above Means or Range ("exposed"), = 8-9

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb , (Cols. 9 and 11),	=	42.0
Mean (corrected) A.M. and P.M. Reading of Wet Bulb , (Cols. 10 and 12),	=	40.8
‡ Computed Temperature of Dew-Point ,	=	39.3
‡ Do. Elastic Force of Vapour ,	=	24.1
‡ Do. Weight of Vapour in a Cubic Foot of Air , ...	=	
‡ Relative Humidity , (Saturation = 100),	=	91
RAIN fell on <i>16</i> Days; Amount in Inches ,	=	2.88

WIND.		SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.
A.M.	2	3	13	2	2	3	2	2	1		
P.M.	2	1	11	5	3		2	5	1		
Mean.	2	2	12	3	3	2	2	3	1		

Observations made and
Return verified by

(Signed) .

Table with 10 columns: Date, Time, Barometer, Wind, Rain, Clouds, etc. Includes handwritten entries for various dates and times.

One of the objects of immediate importance that the "Scottish Meteorological Society" has proposed to itself, is to secure at all perfect uniformity in the system of observation pursued at all its Stations. A certain degree of uniformity is absolutely necessary to justify the publication of Monthly Results from different observations; and it is found that differences between the Returns from any two Stations, so very considerable as to render them quite incomparable, may arise from dissimilarity in the position or shelter of instruments, different hours of observation, or even from the use of differently constructed instruments. It is therefore hoped, that those who kindly furnish Reports to the Society will by a scrupulous attention to the following Directions, secure for their Monthly Returns, an accuracy and value commensurate with the labour and pains involved in making them; and, for the Tables published by the Society, an entire comparableness among the several Returns, without which the Society's Reports must inevitably fail in achieving one of the main objects of Meteorological Observation.

Hour of Observation.—The Council recommend that Observations be made precisely at 9 o'clock (Greenwich or Railway Time only) twice a day for some, and once (morning or evening) for other instruments, as specified, in the following remarks, or at the top of the Schedule. It is hoped that the utmost punctuality in the time of reading the instruments will be observed. Observers, in some few cases, may find this impossible; in such instances, they are specially requested to mark opposite every reading at what time it was taken, if not at 9 o'clock.

Barometer.—Weather glasses and Aneroids, though admirably adapted, as the latter certainly are, to indicate variations of atmospheric pressure, are not well fitted for scientific purposes. Nor can any Barometer be used for Meteorological Observations that is not supplied with such means of adjustment or compensation as will secure the height of the mercury in the tube being accurately measured from the fluctuating surface of the mercury in the cistern. It is also necessary that every Barometer shall have been compared with a Standard.

Two moderate-sized Barometers have been approved of by the Council; if properly tested and attended to, they are both well adapted to Meteorological purposes.

An excellent Barometer is constructed by Mr. Adie of London, the use of which is attended with the great convenience of requiring no adjustment of the cistern. Its scale is not true inches but so much shorter as to compensate the error that would otherwise arise from the fluctuations of the surface of mercury in the cistern. This form of instrument has been adopted by the Board of Trade, and has received the approval of the Meteorological Committee on the British Association. In another form of the Barometer, the sides of the cistern are of leather, and thus, by aid of a screw acting on the bottom, the surface of the contained mercury can be adjusted to the zero-point of the fixed scale; their coincidence being indicated by a little ivory float, whose stem passes freely through the lid and case of the cistern. When the index-line on this little piston-rod is brought, by the adjusting screw, to form one straight line with those on its ivory frame, the surface of the mercury is then at the exact height from which the scale is graduated. In taking an observation, this preliminary setting must be made with scrupulous accuracy; as a slight error will vitiate the readings from the vernier.

When a Barometer having a *zero-point* surface has to be removed from its fastenings, the ivory peg must be screwed so as to form a tight plug to the cistern. Then screw up the mercury to within a quarter of an inch of the top of the tube, and take down the instrument; it should then be carried with the cistern uppermost. Before suspending the Barometer for use, it must be ascertained whether the space above the mercury in the tube is a complete vacuum; this is the case when, on inclining the instrument so that the mercury strikes the top of the tube, a sharp tap is produced. If this is prevented by air it may be removed to the cistern, and got rid of, by inverting the Barometer (care being taken to prevent the loss of mercury by tightening the ivory peg), and gently tapping it; and if this plan fails, the instrument must be repaired.

The Barometer should be suspended in a good light, which may be improved by putting a piece of white paper behind the tube. It must be perfectly perpendicular, and exposed to neither the sun's direct rays nor the heat of a fire.

In taking an observation, the attached Thermometer is first noted; the tube must then be gently tapped and the cistern-adjustment carefully made. By raising and lowering the eye, the index—usually the lower edge of the vernier, which must be carefully adjusted to form a tangent to the convex surface of the mercury in the tube. Observations must be taken quickly; so as to prevent heat from the observer's hands and person from affecting the mercury. The use of a lens will greatly facilitate an accurate adjustment and reading of the Barometer.

Protection of Thermometers.—The Council of the Society recommend that Self-registering Thermometers and Hygrometers be enclosed in a Box, painted white outside and inside, and fixed 4 feet above grass in an exposed position, free from merely local influences. The laths forming the sides and doors of the Boxes are arranged so as to protect the instruments, and to allow a complete ventilation of the interior. The instruments are suspended on cross-laths, in the centre of the Box, and face the door opening to the north. To accommodate a duplicate set of instruments, which is most desirable, doors may also be made to open to the south.

Self-registering Thermometers.—Professor Phillips's, and Negretti and Zambra's Patent "Maximum" Thermometers are recommended; printed directions for their use may be obtained with each instrument. The "Minimum" Thermometer of Rutherford is recommended and should be affixed to a frame separate from the "Maximum." It is recommended that these Thermometers be graduated on the glass stem. The "Minimum" Thermometer is liable to two derangements, both of which must be guarded against, and may be easily remedied by an observer. When the column of spirit breaks, it may be re-secured by striking the instrument repeatedly against the palm of the hand; when part of the spirit distils by high temperature, it will be found in the upper lobe, and must be

dislodged from thence by heating that part over a lamp; the alcohol will evaporate and again condense in contact with the body of the liquid. These instruments should be hung horizontally. The above remarks apply equally to the Thermometers for registering the greatest heat from the sun's rays, and the least from radiation during night. Their bulbs have a black coating, which may easily be made, or mended, by the application of a mixture of lamp black and printer's ink. They are placed in shallow blackened boxes, whose sides protect the bulbs from the sun, and the "Minimum" should be freely exposed to the sun, and the "Maximum" should rest on wooden supports a few inches from the surface of the grass, in an open situation. Snow must not be allowed to cover either of these Thermometers; nor the sun's heat to affect the Minimum Thermometer by dissipation.

Registration of Thermometers.—No instrument ought to be used for Meteorological purposes till it has been carefully tested by comparison with a Standard Thermometer. When such Thermometers are not graduated on the stem, but merely on an attached scale, undergo repairs, they are very liable to be moved from their position on the Scale, and ought never after-wards to be used without being re-tested. The self-registering, and specially the "Minimum," Thermometers, ought frequently to be compared with the dry bulb of the Hygrometer. The freezing-point of each Thermometer (marked by a scratch on the tube) ought to be tested once a year, in snow or melting ice.

The Hygrometer consists of two Thermometers usually, but not necessarily, mounted on one frame. As apparently slight deviations from the approved and well-tested "Deductions," paratus seriously vitiate the "Hygrometric" Deductions, Observers are specially requested to attend to the following conditions:—The bulbs must hang down by at least an inch free from the scales and frame to which they are attached; the frame must be such as will bring the tubes forward by an inch, from any board on which it may be suspended; the water-cup must be covered, and placed to the side, and a little below the level of the wet bulb,—in no case under the bulb;—the muslin must be of medium fineness, and fastened at the neck of the bulb by the cotton, which also supplies it with water. It must be seen to by the observer that the muslin is always clean and moist, and the water pure. In frosty weather observation is a matter of much delicacy, and must be made with great care. The bulb must be moistened by immersion from 15 to 30 minutes before the hour of observation. From the film of ice thus formed evaporation will proceed as from the moist cloth in ordinary circumstances.

Reading of the Thermometer.—Great care must be taken to avoid the effects of refraction, by bringing the eye exactly opposite the tip of the index or column of mercury. The reading ought to be taken to tenths of a degree, and noted in decimals. Thus the Thermometer will be read—39°.40, 40°.0, 40°.1, or again, 40°.4, 40°.5, or 40°.6, according as it indicates a little under, an exact coincidence with, or a little over 40°; or 40°.1, respectively. So also 40°.3 and 40°.7 may be read as 40°.2 and 40°.8 respectively. In reading Rutherford's "Max." and "Min." Thermometers, the indication of that end of the index which is next to the surface of the mercury or alcohol must be noted. Readings of the Thermometers, especially of the wet and dry bulbs, must be rapidly taken, being so readily affected by heat from the person of the observer.

Hour of observing Temperature.—The Hygrometer is read at 9 A.M. and 9 P.M. The self-registering Thermometers are read at 9 P.M. only, as indicating the greatest and least degrees of temperature in the 24 hours preceding. It is not a matter of indifference when the self-registering Thermometers are read, since, in winter at least, the extremes may occur at any hour; and it is necessary to refer their occurrence to their proper meteorological day. In the Society's schedules, the indications registered on the 3rd are those of a series of phenomena commencing at 9 P.M. on the 2nd, and extending till 9 P.M. on the 3rd.

Wind.—A wind-vane ought to be elevated 12 feet at least above surrounding objects. When it oscillates incessantly, the mean direction should be taken; and when it is stationary, and always when the wind is feeble, reference may be made to the direction of smoke, etc.

Careful observations ought to be made on the changes in the direction of the wind; and during storms, extra observations ought to be made at every hour of Greenwich time. Such a system of simultaneous observation, pursued at different Stations, would be likely to give highly interesting and important results.

The Council would recommend that every observatory be furnished with a Hemispherical-Cup Anemometer,—a self-registering instrument which shows the amount of Wind that passes it per day; from which also the Velocity of the Wind at the time of observation may be ascertained. For indicating the Force of the Wind at any particular hour of observation, Lind's Anemometer may also be recommended; the method of Estimating Wind Force by such tables as that given in the schedule is, to say the least, unsatisfactory.

Rain-gauges.—Many causes conspire to produce anomalies in rain returns. They arise, partly, from unfavourable situation for observations, and partly from the defective nature of the instruments used. It is, indeed, difficult to obtain an unexceptionable position for the rain-gauge; but in all cases the gauge must be sunk in the ground till its edges are on a level with the close cut grass around its mouth. The rain-gauge ought to be read daily at 9 A.M., and the readings entered in the returns of the day previous.

Snow-falls may, for convenience, be registered in the rain columns under the following conditions.—When a Snow shower occurs, it should be noted in the "Remarks," and the letter S affixed to the depth of water received in gauge. The depth of the snow must be measured in some open place where no drift is observed, and registered in addition to, and as a check upon, the indications of the rain-gauge. For wind, rain, and snow, as indeed in every column, the observer cannot be too careful to register observations only; and noting that partakes of the nature of deduction or interference with the returns of the Clouds.—Convenient abbreviations for Luke Howard's nomenclature of clouds will be found on the other side. The amount of cloud in the atmosphere ought to be estimated from

the greater or less obscuration of the sky overhead (i. e., within 20° or 30° of the zenith). The strata of clouds that appear near the horizon are viewed obliquely; and thus, being unable to judge of their amount, we ought not to take them into account in the clouds column, though their appearance and changes should be noted among the "Remarks." The amount of cloud is entered from a scale of 0 to 10; thus, when the sky overhead is free from clouds it is entered 0, when half covered by clouds, 5 and so on.

Observations of the clouds are made at 9 A.M. and at sunset, as illustrating the condition and currents of the upper and lower regions of the atmosphere. The entries in the schedule are to be made in the following manner:—In the column "Velocity and Direction," (for example,) will indicate that the upper strata of clouds travel with extreme velocity from S.W., and those in the lower regions from W., with one-third the (extreme) speed of the former. Again, in the second "Cloud" column, an entry of "4, st." (for example,) will indicate that the higher regions are covered to the "amount" of 4-tenths with stratus clouds; and that the sky is further obscured to the extent of 2-tenths by lower clouds of the cumulo-stratus kind.

Sunshine.—The number of hours in which objects in the sun's rays cast shadows, should be entered in the proper column. Underground Thermometers.—As the germination and health of crops and plants greatly depend on the temperature of the soil—its amount and constancy,—the Council recommend that observations in this interesting department be made at 9 A.M., by thermometers placed in the earth, their bulbs being sunk to depths of 3, 12, and 22 inches and the stems above ground protected from the sun's rays, and fitted with sloping tin collars, to prevent rain water being conveyed to the bulbs by the stems or wooden frames. Mention should be made of the geological formation and agricultural condition of the soil in which these Thermometers are placed.

Temperature of the Sea.—A knowledge of the temperature of the sea is not only in itself, but in its relations to that of our island, a very important branch of Meteorology. The Council therefore recommend that the temperature of the sea be carefully taken by a properly constructed apparatus, from boats from the ends of piers and rocks round the coast, where it is not influenced by that of river waters. At or near the time of high water, on the 5th, 15th, and 25th of each month, the thermometer ought to be sunk exactly six feet (one fathom), and after ten minutes have elapsed, drawn up and read. When convenient, extra sea observations might be taken on other, and greater depths, noting always the temperature of the air, and the hour of observation; and continuing to observe for particular depths.

Temperature of Wells.—The temperature of the water at the bottoms of wells ought, when practicable, to be taken, and the depth of the well and of the water noted.

Ozone.—Mention whether Schönbien's or Mollat's papers are used. The paper is affixed by a pin to a board in the thermometer box, and the indications registered at 9 A.M. and 9 P.M. It is desired that these indications be registered in connection with the force and direction of the wind at the time of observation, in the following manner:—thus 3°, as an ozone entry on the schedule, will indicate that the ozone paper is tinted as 3° on the scale, that the wind is from the N.W., and that its force is moderate.

Electricity.—Too much importance cannot be attached to the magnetic condition of the atmosphere in connection with terrestrial magnetism, and as a meteorological phenomenon. A proper Electrometer is necessary to every complete meteorological observatory.

Remarks.—The "Remarks" column is too narrow, but unavoidable. Some of the most valuable observations that can be taken are those for which no rules can be given nor hours assigned. The use of contractions ought, therefore, to be taken every advantage of, and a list of such as are recognised and in use are given at the foot of the column. Besides special and extraordinary observations, great prominence ought to be given in this column to prevalent diseases, differences in character, colour, velocity, and direction between the lower and upper strata of clouds, the colour of the sky, etc. Remarks ought to be made on the occurrence of mists, aurora borealis, remarkable depressions and elevations of the barometer, thunder storms, and remarkable falls of snow, hail, or rain, the hour of storms of wind attaining their maximum, as well as such notes on storms as have been hinted at above. When lofty hills are in the vicinity of an Observatory, the height of clouds and of the snow-line in winter should be recorded.

By the use of abbreviations the state of the weather at 9 A.M. and 9 P.M. should be registered either in two columns, other wise unoccupied, or by rules off for the purpose, from that headed "Remarks." It is intended that observations by the side of the column should be entered in this manner or on the side margin. Additional remarks may be made on the margin.

"Observations in connection with the periodic return of the seasons," possess not only great scientific value, but are of considerable interest to the Agriculturist. The Council would direct the special attention of Observers to the registration of such phenomena so that the published Summaries may fairly represent the whole of Scotland. Observations ought to be confined to individual trees and shrubs; to particular species of birds; and, in the case of crops, to specified sorts reared from year to year on a selected piece of ground or farm.

The Council recommend that term day observations be taken;—viz., on the 21st days of March, June, September, and December.

Full directions for the use of the instruments mentioned above have been printed, and may be had along with them from the makers.

The Council recommend observers, before purchasing new instruments, to communicate with the Meteorological Secretary; and they consider it desirable that he should have full power to reject any instrument which, on being presented for comparison, does not afford him satisfaction.

(By Order) A. B.

EDINBURGH, November 1872.

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SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Baron Cottage, County of North, in Lat. 55°49'50" Long. 5°45', Distance from Sea 10 miles.Height of Cistern of the Barometer above Mean Sea-level 116 feet, above Ground 4 feet.During the MONTH of December 1876

The Hours of Observation are of Greenwich Time.

BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER.				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.		OZONE.		GENERAL REMARKS.		Days of Month.					
9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		Readings of the H. Cup Anemometer.		9 A.M.		P.M.		9 h. A.M.			Temperature of Wet Bulb at 10 fathoms.		0-10.		As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevailing Diseases, etc.							
Barometer No.	Atmospheric Thermometer	Barometer No.	Atmospheric Thermometer	Max. No.	Min. No.	Max. No.	Min. No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	No. of hours in which it fell.	Amount in inches.	Velocity (0-6), and Direction.	Amount (0-10), and Direction.	Velocity (0-6), and Direction.	Amount (0-10), and Direction.	No. 3 inches.	No. 12 inches.	No. 22 inches.	Temperature at surface and Depth.	9 A.M.	9 P.M.	Mention the hour at which Storms, including Thunder and Lightning, began and ended.								
inches.	inches.	inches.	inches.																																	
29.260	46	29.130	45	44	37			43	42.5	44	43.5	E	ENE		ENE	2	250													Dull & wet gale all night cloudy & heavy gale all night stormy & wet	cloudy & blowy gusty winds partly clear cloudy & blowy gusty from all ways	1				
29.250	45	29.230	45	45	40.3			43.5	42	42.3	40.5	ENE	ENE		ENE		450														cloudy & blowy gusty winds partly clear cloudy & blowy gusty from all ways	2				
28.760	45	28.564	57	50	39			44	43.5	47.5	46.5	ENE	SE		SE		285														cloudy & blowy gusty from all ways	3				
28.466	50	28.464	57	48.5	44			46	45	46.5	46.5	ENE	SW		SW		490														Dull & wet	cloudy & blowy gusty from all ways	4			
28.520	50	28.444	57	49.8	43			44.5	44	46	46	S	E		E		230														clear breezy	Dull & wet	5			
28.500	50	28.808	57	49	45			47	46	48	46	W	SW		SW		105															cloudy	cloudy & breezy	6		
29.082	50	29.332	48	49.5	36			45.5	44.8	36.2	36.2	W	calm		calm		080															Dull and wet	clear calm & frosty	7		
29.592	44	29.784	47	48	32.5			40	40	45.5	44.5	calm	W		W		055															Dull & foggy	cloudy & misty	8		
29.910	48	29.990	49	49	44.2			46	45.3	46.5	46.5	WNW	SW		SW		020															cloudy & foggy	do do	9		
29.950	49	29.866	49	48	44.5			46.5	45.2	48	46	S	calm		calm		055															cloudy & misty	do do	10		
29.880	49	29.574	50	49	45			47.2	46.5	46	43.5	SSW	SW		SW		270															cloudy & wet	do do	11		
29.340	50	29.472	49	48.5	41.3			45.5	45.5	44	41.5	W	W		W		053															cloudy & showers	heavy clouds, heavy	12		
29.580	44	29.572	57	45	34.5			42	40.3	44	42.5	SE	SE		SE		040															cloudy & blowy & cold	cloudy & blowy	13		
29.656	44	29.736	50	45	39.5			44.5	43.2	42	42	SE	SE		SE		405															Dull & wet	Dull & damp	14		
29.716	48	29.650	45	43	40			41.5	40.8	42.5	40.5	SE	SE		SE		005															do do	cloudy, gusty winds	15		
29.634	47	29.624	47	46	42			44	42	44	42.5	SE	ESE		ESE		560															cloudy & blowy	do do	16		
29.572	46	29.472	47	44.5	39.8			41.5	40.5	43	41.5	E	ESE		ESE		020															Dull & wet	do do	17		
29.380	46	29.290	42	43.5	38.5			41	39.8	39.3	37.8	E	E		E		010															cloudy & blowy	do do	18		
29.144	42	28.992	43	41	36			37.5	36.2	38	36.5	NE	NE		NE		000															Dark heavy clouds	do do do	19		
28.872	44	28.936	42	42	36			43	41	36.5	35	E	E		E		000															cloudy - gale	do do	20		
28.944	38	28.972	40	37	34			35	33	36	33	ENE	ENE		ENE		005															gale all night	do do do	21		
28.836	39	29.000	38	40	33			34	33.5	35	34	WNW	SE		SE		770															gale 9 am	do do	22		
29.060	38	29.290	39	41	32.5			34	33.5	35.5	34.2	SE	SE		SE		205															Dull & cloudy	do do	23		
29.470	36	29.720	39	37	32			35.5	34	35.2	34	E	E		E		000															snow - stormy	heavy & stormy	24		
29.984	36	29.830	36	36	32.5			33	31.5	~	~	E	E		E		000															shyng clouds, heavy & cloudy	cloudy & blowy	25		
29.966	33	29.580	35	32.5	30			32	31.6	~	~	ESE	SE		SE		690															clear - blowy	do do	26		
29.360	36	29.168	42	46	30			35.2	35	46	44.5	NE	WSW		WSW		700															Dull & blowy	snow storm gale	27		
29.284	44	29.192	46	49	42			43.3	41.5	47	46	SSW	SW		SW		220															gales of snow	heavy rain & dark	28		
29.572	47	29.250	44	47.5	35.3			36	35.5	41.2	40.6	NW	E		E		435															Dull & calm	cloudy - showers	29		
29.250	48	29.030	49	44.5	40.5			43	42.5	43.5	43	E	SW		SW		785															do do	Dull & wet	do do	30	
28.644	47	28.786	50	49	40.5			46	44	45.5	45	SW	SW		SW		505															do do	cloudy mist	do do	31	
29.174	43	29.066	45	43	35.4			40.7	39.8	42.7	39.8						7658																			
29.296	44.5	29.291	46.2	44.3	38.1			41.3	40.3	42.5	41.4																									

NOTATION USED IN GENERAL REMARKS.											
a.	denotes aurora.	m.	denotes meteor.								
ci.	" cirrus.	ms.	" meteora.								
ci-cu.	" cirro-cumulus.	n.	" nimbus.								
ci-s.	" cirro-stratus.	r.	" rain.								
cu.	" cumulus.	h. r.	" heavy rain.								
cu-s.	" cumulo-stratus.	c. h. r.	" continued heavy rain.								
d.	" dew.	s.	" stratus.								
f.	" fog.	sc.	" scud.								
fr.	" frost.	sleet.	" sleet.								
h-fr.	" hoar-frost.	s.	" snow.								
h.	" haze.	sol. h.	" solar halo.								
h. d.	" heavy dew.	sq.	" squall.								
h. l.	" hail.	squ.	" squall.								
l.	" lightning.	t.	" thunder.								
h. cl.	" light clouds.	t. s.	" thunder storm.								
h. sh.	" light showers.	w.	" wind.								
h. co.	" lunar corona.	g.	" gale of wind.								
lu. la.	" lunar halo.										

TABLE FOR ESTIMATING FORCE OF WIND.					
Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.
0	Calm	1-5	Light breeze	4	Blowing hard
0.5	Fresh light air	2	Fresh breeze	5	Blowing a gale
1	Light air	3	Very fresh	6	Violent gale

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
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NOTATION USED IN GENERAL REMARKS.

a.	denotes	aurore.	m.	denotes	meteor.
ci.	cirrus.		ms.	meteo.	
ci-cu.	cirro-cumulus.		n.	nil.	
ci-s.	cirro-stratus.		r.	rain.	
cu.	cumulus.		h. r.	heavy rain.	
cu-s.	cumulo-stratus.		c. h. r.	continued heavy rain.	
d.	drizzle.		s.	stratus.	
f.	fog.		sc.	scud.	
fr.	frost.		s.	snow.	
h. fr.	hoar-frost.		sol. h.	solar halo.	
h.	haze.		sq.	squall.	
h. d.	heavy dew.		s.	squall.	
h. l.	light dew.		th.	thunder.	
l.	lightning.		t. s.	thunder storm.	
h. cl.	light clouds.		w.	wind.	
h. sh.	light showers.		g.	gale of wind.	
h. co.	lunar corona.				
h. lu.	lunar halo.				

TABLE FOR ESTIMATING FORCE OF WIND.

Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.
0	Calm	1-5	Light breeze	4	Blowing hard
0.5	Very light air	2	Fresh breeze	5	Blowing a gale
1	Light air	3	Very fresh	6	Violent gale

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for

Index Errors), on the 3rd, = 50.0Lowest in Month, corrected for Index errors, on the 26th, = 30.0

Difference, or Monthly Range, = 20.0

"Corrected Mean" of all the Highest, (Col. 5), = 44.8

"Corrected Mean" of all the Lowest, (Col. 6), = 38.1

Difference, or Mean Daily Range, = 6.7

** Calculated Mean Temperature of Month, = 41.4

S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for

Index Errors), on the 5th, =

"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, =

Lowest at Night, Black Bulb, (corrected for Index errors), on the 5th, =

"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, =

Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry

Bulb, (Cols. 9 and 11), = 42.0

Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols.

10 and 12), = 40.8

Computed Temperature of Dew-Point, = 39.3

Do. Elastic Force of Vapour, = 241

Do. Weight of Vapour in a Cubic Foot of Air, ... =

Relative Humidity, (Saturation = 100), = 91

RAIN fell on 27 Days; Amount in Inches, = 7.66

WIND.		SUMMARY.			
Direction.	N	NE	E	SE	S
A.M.	2	12	53	1	1
P.M.	1	11	7	3	2
Mean.	1	11	6	2	1

Observations made and
Return verified by

James Hay

(Signed)

James Hay

