

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Blacket N. Edinburgh county of Edinburgh, in Lat. 55° 57' N, Long 3° 12' W Distance from Sea 2 miles.Height of Cistern of the Barometer above Mean Sea-Level 276 feet, above Ground 20 feet.During the MONTH of January 1899.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER.				Rain.	WIND.				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. <i>Mention the hour at which Storms, including Thunder and Lightning, began and ended.</i>	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 Ther- mometer	Barometer.	Attached Ther- mometer	Max. No.	Min. No.	Max. in Sun's rays	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.		No. of hours in which it fell.	No.	Direction.	Force.	Direction.	Force.	Velocity (0-6) and Direction.	Amount (0-10), and Direction.	Velocity (0-6) and Direction.	Amount (0-10), and Direction.	No.					No.	No.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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 Height of Cistern of the Barometer above Mean Sea-Level 276 feet, above Ground 20 feet. During the MONTH of February 1899.
 The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. Dry No. Wet No.				Rain.		WIND.				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. Sun's rays		9 h. A.M.		9 h. P.M.		No. of hours in which it fell.	Amount in inches.	9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.					Temperature of WELL at depth of feet. No.	Temperature at 1 fathom, and Density.			0-10.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		Barometer. * No.	Attached Thermometer.	Barometer. No.	Attached Thermometer.	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.	Readings of the H. Cup Anemometer. No.	9 h. A.M.	Velocity (0-6) and Direction.	Amount (0-10), and Species.	Velocity (0-6) and Direction.	Amount (0-10), and Species.	No.	3 inches.						No.	12 inches.	No.	22 inches.	9 A.M.	P.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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BAROMETER, "corrected Mean" at 9 A.M., minus the Correction $\frac{1}{100}$ for Temp. (Col. 2), = 29.794
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction $\frac{1}{100}$ for Temp. (Col. 4), = 29.796
 Mean at Station, corrected, and at 32°, = 29.796
 Correction for height, feet above Mean Sea-level, = 30.6
 Mean, reduced to 32°, and Sea-level, = 29.796
 Highest Reading, corrected for Index error, on the 27 th, = 30.498
 Lowest Do. Do., on the 13 th, = 29.817
 Difference, or Monthly Range, = 1.681

S-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 17 th, = 53.9
 Lowest in Month, corrected for Index errors, on the 27 th, = 22.1
 Difference, or Monthly Range, = 31.8
 "Corrected Mean" of all the Highest, (Col. 5), = 44.6
 "Corrected Mean" of all the Lowest, (Col. 6), = 34.4
 Difference, or Mean Daily Range, = 10.2
 ** Calculated Mean Temperature of Month, = 39.5
 S-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 17 th, = 101.9
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 70.2
 Lowest at Night, Black Bulb (corrected for Index errors), on the 4 th, = 23.0
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 30.9
 Difference of above means or range ("exposed"), = 39.3

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 38.5
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 36.6
 †† Computed Temperature of Dew-Point, = 34.0
 †† Do. Elastic Force of Vapour, = 1.96
 †† Do. Weight of Vapour in a Cubic Foot of Air, = —
 †† Relative Humidity (Saturation = 100), = 83
 RAIN fell on 11 Days; Amount in Inches, = 1.45

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	5	3	1		13	2	2	0.79					
P.M.			3	2	3	3	9	1	7	0.75					
Mean.	1	0	4	2	2	2	11	2	4	0.77					

Observations made and
 Return verified by

(Signed) Robert G. Clossman

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Blacket Place Edinburgh County of Edinburgh, in Lat. 55° 57' N Long. 3° 12' W Distance from Sea 2 miles.Height of Cistern of the Barometer above Mean Sea-Level 276 feet, above Ground 20 feet.During the MONTH of March 1899.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 A.M.				HYGROMETER.				Rain.	WIND.				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.											
		Barometer.	Attached Thermometer.	Barometer.	Attached Thermometer.	Max. No.	Min. No.	Max. in Sunrays No.	Min. on Grass. No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	No. of hours in which it fell.	No.	Direction.	Force.	Direction.	Force.	Velocity (0-10), and Species.	Amount (0-10), and Species.	Velocity (0-5) and Direction.	Amount (0-10), and Species.	SUNSHINE. Hours.	No. 3 inches.			No. 12 inches.	No. 22 inches.	Temperature of WELL at depth of feet, No.	Temperature at 1 fathom, and Depth.	0-10. 9 A.M. 9 P.M.
		* No.	inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°			°	°	°	°	°
	1	30.503		30.300		63.0	45.0	93.2	41.0	47.3	46.0	46.2	42.8	—	W	1-2	WSW	2-3		10	10	2.53									1	
	2	234		209		48.9	43.8	62.4	40.0	47.7	45.0	44.9	41.1	—	W	2-4	W	1-3		10	0	—									2	
	3	29.928		29.816		50.5	39.8	93.5	37.5	43.7	41.6	41.0	39.8	12	W	1-2	W	0-1		10	10	3.95									3	
	4	952		30.137		41.9	32.9	93.2	28.0	33.5	31.1	35.0	32.1	—	E	1-2	Calm	0		10	0	3.95									4	
	5	30.107		022		42.1	30.6	77.0	30.3	36.0	32.8	38.1	35.0	—	WNW	1-2	W	1-2		10	10	1.5									5	
	6	29.732		29.647		48.9	37.3	94.1	33.5	42.0	38.4	41.2	39.2	04	W	2-3	W	1-2		10	2	3.10									6	
	7	475		462		49.1	36.6	98.8	30.9	41.3	39.0	42.4	40.8	03	S	1-2	SW	1-3		5	6	7.35									7	
	8	348		28.946		43.9	36.8	70.0	33.3	39.7	37.4	39.0	37.0	15	WNW	1-2	W	1-2		7	9	3.38									8	
	9	28.925		29.334		39.3	35.1	48.4	34.9	36.7	36.0	38.8	37.5	—	W	1-2	W	0-1		10	0	—									9	
	10	29.687		770		49.3	36.5	86.2	31.5	40.3	38.0	49.3	47.5	—	W	1-2	W	1-3		10	7	1.5									10	
	11	981		970		53.1	48.4	74.8	46.7	51.1	48.1	50.7	47.5	—	W	1-2	W	2-5		10	0	1.0									11	
	12	30.406		30.249		52.3	41.3	98.2	37.5	48.0	42.2	45.0	41.0	—	W	1-2	W	0-1		1	10	7.82									12	
	13	481		441		55.0	39.8	101.2	34.9	47.0	44.8	48.6	46.6	—	W	1	W	0-1		10	10	6.5									13	
	14	448		418		50.3	45.8	82.9	40.9	48.4	46.0	46.0	44.0	—	W	1-2	W	1-2		7	3	1.36									14	
	15	424		412		49.0	44.7	69.0	40.9	46.2	43.7	45.8	43.4	—	WNW	1	W	0-1		10	10	—									15	
	16	466		427		52.9	37.7	77.9	32.4	42.5	41.7	42.3	41.2	—	WNW	0-1	Calm	0		1	0	5.72									16	
	17	351		232		62.9	37.7	92.1	31.1	46.3	43.5	43.7	42.4	—	Calm	0	W	0-1		0	0	8.48									17	
	18	372		326		44.9	35.2	99.3	31.2	37.5	33.8	37.0	32.1	—	E	1-2	NE	0-1		4	9	7.77									18	
	19	111		29.982		39.5	27.6	76.4	22.5	37.1	32.5	30.0	28.0	—	NW	1-2	W	0-1		5	0	2.05									19	
	20	29.911		887		37.7	27.1	83.9	21.2	30.7	29.8	30.5	29.5	—	NW	0-1	NW	0-1		7	1	2.53									20	
	21	765		765		39.3	25.0	84.1	20.2	30.5	27.0	30.0	29.0	—	NW	0-1	N	0-1		0	2	6.02									21	
	22	770		810		35.9	26.9	79.0	25.0	31.2	28.0	28.7	27.0	—	N	0-1	N	1		1	0	8.02									22	
	23	959		30.031		38.3	24.2	88.9	20.2	30.6	26.6	30.0	27.2	—	N	1-2	Calm	0		6	0	7.67									23	
	24	30.066		083		42.0	23.5	88.7	20.0	31.1	28.7	32.2	30.5	05	Calm	0	W	0-1		2	8	5.32									24	
	25	29.981		29.720		37.9	30.3	59.2	28.1	32.3	32.0	33.6	33.0	58	SE	4-1	SE	0-1		10	10	—									25	
	26	893		900		32.0	33.0	32.0	31.8	36.6	35.7	37.0	36.4	13	SE	0-1	Calm	0		10	10	—									26	
	27	636		641		53.1	36.3	93.9	35.2	46.6	44.0	49.0	45.7	03	WSW	2-3	SW	1-2		10	10	3.41									27	
	28	602		173		53.8	47.7	98.0	44.4	51.4	46.1	49.7	46.3	43	W	1-2	WSW	2-5		10	9	8.83									28	
	29	399		828		53.1	46.0	97.1	44.0	49.0	45.8	47.0	44.0	11	WSW	2-4	W	1-2		9	10	6.86									29	
	30	30.197		30.269		46.1	38.0	93.9	38.0	38.8	37.2	39.0	35.9	06	E	1	Calm	0		10	10	1.77									30	
	31	096		035		47.5	33.2	48.1	32.1	33.9	33.3	47.5	40.7	40	E	1	W	1-2		10	10	—									31	
Sum.		1715.12		29.58		16.8	17.3	193.9	84.2	141.2	16.10	15.2	15.10	2.13		40.5	38.0		22.5	136	96.97											
Means.																																
+ Total Corrections for Instru- mental Errors.																																
+ Corre- ctions for Diurnal Range.																																
+ "Cor- rected Means."		29.974		29.942		46.6	36.3	82.4	32.9	40.5	37.9	40.5	38.2																			
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.	"	ms.	" 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. ia.	" solar halo.
h. d.	" heavy dew.	sq.	" squall.
hl.	" hail.	squ.	" 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 \ddagger = 26
for Temp. (Col. 2), = 26
"Corrected Mean" of Barometer at 9 P.M., minus the Correction \ddagger = 26
for Temp. (Col. 4), = 26
Mean at Station, corrected, and at 32°, = 29.654
Correction for height, feet above Mean Sea-level, = 307
Mean, reduced to 32°, and Sea-level, = 29.960
Highest Reading, corrected for Index error, on the 1 th, = 30.503
Lowest Do. Do., on the 9 th, = 28.925
Difference, or Monthly Range, = 1.578

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 17 th, = 62.9
Lowest in Month, corrected for Index errors, on the 24 th, = 23.5
Difference, or Monthly Range, = 39.4
"Corrected Mean" of all the Highest, (Col. 5), = 46.0
"Corrected Mean" of all the Lowest, (Col. 6), = 36.3
Difference, or Mean Daily Range, = 10.3
** Calculated Mean Temperature of Month, = 41.5
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 13 th, = 101.2
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 82.4
Lowest at Night, Black Bulb (corrected for Index errors), on the 24 th, = 20.0
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 32.9
Difference of above means or range ("exposed"), = 49.5

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 40.5
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 34.2
†† Computed Temperature of Dew-Point, = 35.3
†† Do. Elastic Force of Vapour, = 206
†† Do. Weight of Vapour in a Cubic Foot of Air, = 82
†† Relative Humidity (Saturation = 100), = 82
RAIN fell on 12 Days; Amount in Inches, = 2.13

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		4	2	1		17	3	2	1.31	
P.M.	2	1		1		2	19	1	3	1.23	
Mean.	2	1	2	1	1	1	10	2	3	1.27	

Observations made and
Return verified by

(Signed) Robert A. S. Moorman

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Black R. Edinburgh, County of Edinburgh, in Lat. 55° 57' N, Long. 3° 12' W, Distance from Sea 2 miles.
Height of Cistern of the Barometer above Mean Sea-Level 276 feet, above Ground 20 feet. During the MONTH of April 1899.
The Hours of Observation are of Greenwich Time.

Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER.				Rain.	WIND.				CLOUDS.				THERMOMETERS under Ground.				SEA.	OZONE.	GENERAL REMARKS. As to occurrences of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Variation 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 No.	Min. on Grass No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	No. of hours in which it fell.	No.	Direction.	Force.	Direction.	Force.	Velocity (0-10), and Direction.	Amount (0-10), and Direction.	Velocity (0-10), and Direction.	Amount (0-10), and Direction.	No. 3 inches.	No. 12 inches.	No. 22 inches.				
	* No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.		
	inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°			
1	29.884		29.882		53.4	40.8	96.0	40.0	49.8	48.1	49.3	47.5	—	W	2.3	W	1.2		10	0	39						1		
2	30.017		29.868		50.3	42.6	63.1	42.3	51.1	49.9	42.9	42.3	18	Cal	0	Cal	0		10	10	—						2		
3	29.893		29.898		54.8	41.3	91.1	40.9	48.0	47.0	48.9	45.6	—	S	0.1	W	1.2		10	9	1.74						3		
4	29.650		29.569		54.3	44.3	103.7	41.6	53.1	49.8	45.8	42.0	14	W	2.4	W	2.5		10	3	2.53						4		
5	29.802		29.751		51.0	40.5	97.6	37.0	47.0	42.7	43.8	41.4	07	W	2.5	W	1.3		6	10	3.53						5		
6	29.900		29.856		51.0	38.0	100.3	34.6	45.8	41.5	41.0	40.6	24	NW	1	SE	0.1		0	10	6.74						6		
7	29.836		29.862		42.3	38.9	53.4	39.2	41.8	40.4	41.3	38.3	11	NW	0.1	N	0.1		10	10	—						7		
8	29.803		29.780		49.9	33.7	99.7	30.9	40.6	38.1	44.1	40.6	—	NW	0.1	NW	0.1		0	10	9.08						8		
9	29.759		29.580		50.8	35.9	103.9	31.0	49.1	45.0	41.0	40.3	32	W	0.1	Cal	0		10	10	5.02						9		
10	29.528		29.524		42.9	37.0	64.0	37.5	39.0	37.7	40.7	39.0	01	ENE	0	N	0.1		10	10	—						10		
11	29.785		29.857		47.2	34.1	106.5	31.1	42.3	37.7	39.2	35.0	—	N	0.1	N	0.1		7	1	8.11						11		
12	29.700		29.839		47.0	28.6	102.1	26.0	42.0	37.0	40.7	37.5	—	NW	0.1	SW	1.2		2	0	6.05						12		
13	29.099		29.102		44.0	34.8	69.7	31.6	39.1	36.9	40.8	39.4	—	ESE	0.1	E	0.1		10	10	—						13		
14	29.293		29.427		43.0	39.5	61.0	37.0	41.6	40.3	41.9	40.4	03	E	1.2	E	1.2		10	10	—						14		
15	29.455		29.590		43.0	38.8	70.1	36.0	41.1	38.0	39.9	35.0	—	NE	3.5	E	1		10	10	—						15		
16	29.732		29.811		50.0	34.5	105.3	29.0	46.8	39.8	37.0	34.8	—	E	1.2	S	0.1		6	9	8.15						16		
17	29.822		29.903		48.0	30.0	110.1	27.0	43.0	37.6	37.0	34.0	01	N	0.1	Cal	0		2	9	8.20						17		
18	29.009		29.852		48.0	31.4	101.0	25.0	43.0	42.0	43.0	40.0	30	NW	0.1	WSW	1.2		1	10	4.50						18		
19	29.861		29.029		48.2	39.0	94.0	39.2	43.0	41.0	40.2	39.2	—	W	0.1	E	0.1		10	10	9.3						19		
20	29.062		29.090		43.0	36.0	89.0	30.7	40.0	39.0	37.0	35.3	01	NE	1	E	0.1		10	0	2.34						20		
21	29.982		29.126		51.0	30.0	101.0	23.0	44.0	40.0	35.8	33.5	03	W	0.1	E	1.2		0	10	6.34						21		
22	29.218		29.219		47.0	32.0	95.3	27.0	40.0	35.2	44.0	40.0	—	W	0.1	W	0.1		8	10	6.47						22		
23	29.092		29.796		53.0	41.0	107.0	36.6	48.0	42.0	49.5	44.0	14	S	0.1	S	0.1		7	10	6.45						23		
24	29.616		29.443		59.2	44.0	112.0	42.3	53.0	51.0	53.5	50.2	04	SE	0.1	S	0.1		10	10	2.27						24		
25	29.359		29.388		52.2	44.0	81.0	42.2	44.0	43.0	45.3	42.3	15	SW	1.2	Cal	0		10	0	—						25		
26	29.604		29.840		59.5	42.0	112.2	38.4	52.0	47.0	47.8	43.5	—	NE	0.1	E	0.1		1	10	10.65						26		
27	29.876		29.813		61.2	33.0	105.3	30.2	50.0	48.0	51.2	47.0	03	E	0.1	S	0.1		6	10	4.85						27		
28	29.669		29.591		59.0	48.0	97.5	46.1	55.0	52.0	52.0	49.0	25	W	0.1	SW	0.1		10	10	2.3						28		
29	29.538		29.863		52.8	37.5	54.0	34.9	42.0	42.0	39.8	37.0	07	E	0.1	NE	1.2		2	4	—						29		
30	29.142		29.176		49.6	33.8	109.4	28.7	48.7	41.3	42.7	38.1	16	NW	0.1	Cal	0		6	2	8.27						30		
31																											31		
Sums.	21986		22183		70	2251	2741	1370	1641	712	963	130	229	290	245				204	227	112.88								
Means.																													
+ Total Corrections for Instrumental Errors.																													
+ Corrections for Diurnal Range.																													
"Corrected Means."	29.733		29.789		50.2	37.5	92.0	34.6	45.5	42.4	43.2	40.4	—	97	82				6.8	76	423	432	414						
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		

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.	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. h.	" solar halo.		
h. d.	" heavy dew.	sq.	" squall.		
hl.	" hail.	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 \ddagger for Temp. (Col. 2), = 29.733
"Corrected Mean" of Barometer at 9 P.M., minus the Correction \ddagger for Temp. (Col. 4), = 29.789
Mean at Station, corrected, and at 32°, = 29.434
Correction for height, feet above Mean Sea-level, = 30.2
Mean, reduced to 32°, and Sea-level, = 29.736
Highest Reading, corrected for Index error, on the 22nd th., = 30.219
Lowest Do. Do., on the 13th, = 29.099
Difference, or Monthly Range, = 1.120

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 27th, = 61.2
Lowest in Month, corrected for Index errors, on the 12th, = 28.5
Difference, or Monthly Range, = 32.7
"Corrected Mean" of all the Highest, (Col. 5), = 58.2
"Corrected Mean" of all the Lowest, (Col. 6), = 37.5
Difference, or Mean Daily Range, = 12.7
** Calculated Mean Temperature of Month, = 43.8
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 26th, = 112.2
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 92.0
Lowest at Night, Black Bulb (corrected for Index errors), on the 21st, = 23.0
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 34.6
Difference of above means or range ("exposed"), = 57.4

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 44.3
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 41.4
†† Computed Temperature of Dew-Point, = 38.0
†† Do. Elastic Force of Vapour, = 2.29
†† Do. Weight of Vapour in a Cubic Foot of Air, = 7.8
†† Relative Humidity (Saturation = 100), = 78
RAIN fell on 19 Days; Amount in Inches, = 2.29

WIND.												SUMMARY.		
Direction.	N	NE	E	SE	S	SW	W	NW	Cal	or	Variable.	Mean Force.	Mean Velocity	in miles per day
A.M.	2	3	6	1	2	1	8	6	1			97		
P.M.	3	1	7	1	4	2	6	1	5			82		
Mean.	2	2	6	1	3	2	7	3	3			90		

* Observer from home 15th to 30th during which time the barometric observations were taken by Mr. Mossman and at 9 P.M. by Mr. T. Scott. The wind force have been filled in from the observer's remarks as light 0-1 moderate 1-2, etc.

Observations made and
Return verified by

(Signed)

R. G. Mossman, Observer.

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at *Blackhall, Edinburgh*, County of *Edinburgh*, in Lat. $55^{\circ}57'N$, Long. $3^{\circ}12'W$, Distance from Sea *2* miles.Height of Cistern of the Barometer above Mean Sea-Level *276* feet, above Ground *20* feet.During the MONTH of *May* 189*9*.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS.				HYGROMETER.				Rain.	WIND.				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.	Attached Ther- mometer	Barometer.	Attached Ther- mometer	Max.	Min.	Max. in Sun's rays	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.		No. of hours in which it fell.	Amount in inches.	Direction.	Force.	Direction.	Force.	Readings of the H. Cup Anemometer No. _____	Velocity (0-6) and Direction.	Amount (0-10), and Species.	Velocity (0-6) and Direction.	Amount (0-10), and Species.					No.	No.	No.
		* No. —	No. —	No. —	No. —	No. —	No. —	No. —	No. —	No. —	No. —	No. —	No. —		No. —	No. —	No. —	No. —	No. —	No. —	No. —	No. —	No. —	No. —	No. —					No. —	No. —	No. —
		inches.	°	inches.	°																											
	1	30.009		29.863		46.3	35.0	72.4	33.3	36.4	35.8	43.1	42.1	.11	E	1.2	E	0.1		10	10	—							Mist on hills. R. at times.	1		
	2	29.967		30.071		43.3	41.0	60.7	41.0	42.5	41.5	41.0	39.8	.02	E	1.2	E	0.7		10	10	—							Dull with R. at times.	2		
	3	30.179		31.0		49.0	38.7	110.0	35.8	46.0	41.2	40.2	37.3	—	E	0.7	E	0.7		3	1	12.98							Sunny. Very clear.	3		
	4	387		456		50.4	36.8	107.1	32.0	43.7	40.9	39.6	37.8	—	NE	0.7	E	0.7		2	0	9.20							Very clear. Bright & sunny.	4		
	5	492		542		48.9	35.7	107.4	31.9	42.5	38.8	41.1	39.0	—	SE	0.7	E	0.7		10	0	7.11							Fine. Sunny.	5		
	6	570		537		51.1	33.2	111.1	31.3	45.6	41.1	41.9	37.8	—	SE	0.7	Cal	0		4	0	12.58							Fine sunny. H. in morn.	6		
	7	502		410		50.9	35.3	108.1	32.9	47.0	43.0	42.6	40.6	—	E	1	E	0.7		0	0	12.20							Fine throughout.	7		
	8	341		190		56.5	37.2	114.4	33.8	48.0	44.8	44.7	43.1	.04	E	0.1	E	0.7		0	0	11.08							Fine most of day.	8		
	9	112		033		47.5	42.3	64.4	39.3	46.3	44.5	44.8	44.8	.47	E	0.7	NE	1.2		10	10	—							Mist on hills with H. s.	9		
	10	29.938		29.977		47.9	44.7	63.0	42.9	46.4	46.1	46.3	46.0	.25	E	0.7	NE	0.1		10	10	—							Mist at station with d. s.	10		
	11	990		050		53.1	44.2	116.9	44.2	49.3	47.0	44.8	42.9	—	ESE	1.2	ESE	1		10	10	1.56							Fine sunny dull at night	11		
	12	30.063		29.992		48.9	42.6	84.8	40.7	46.0	43.8	42.6	41.4	—	ESE	1.2	E	0.7		10	10	—							Dull throughout	12		
	13	29.846		675		46.9	41.8	75.1	43.0	43.8	41.5	42.4	41.5	.38	E	0.7	E	0.7		10	10	—							Dull. R. at 9 P. Dull.	13		
	14	500		482		54.0	41.3	107.4	41.3	49.2	47.3	44.0	43.0	.04	SE	0.7	Cal	0		10	3	1.81							Sunny intervals. R. and H. s.	14		
	15	406		269		50.2	41.1	70.2	38.9	46.0	43.1	43.9	43.0	.07	ENE	0.7	WNW	0.7		10	10	—							Dull. R. 9 P.	15		
	16	279		369		56.0	42.1	111.2	40.9	51.0	45.3	47.1	44.1	.08	W	1.2	W	1.2		9	10	11.10							Fine & sunny.	16		
	17	410		653		54.3	44.9	111.5	40.4	49.1	45.6	46.0	43.6	.07	W	2.3	W	1.2		10	0	8.91							Fine sunny.	17		
	18	635		538		57.3	44.0	107.9	41.6	46.7	46.0	44.8	42.0	.71	E	1.2	W	2.5		10	1	4.8							H. s. from 2 A.M. to 3 P. & s. after 3 P.	18		
	19	818		554		56.2	42.3	112.2	39.2	51.9	46.0	46.6	46.2	1.25	W	2.3	E	1.2		6	10	5.15							Fine till about 2 P. with west wind. E. wind and very heavy R. at night.	19		
	20	512		864		47.3	42.9	51.9	42.9	47.3	46.7	43.0	41.0	.13	NNE	0.1	NE	0.1		10	10	—							Mist on hills till 2 P. when rain ceased.	20		
	21	30.029		30.097		51.0	40.3	116.5	39.8	46.9	42.2	42.0	38.5	—	ESE	0.1	E	0.1		9	10	4.74							Sunny till about 1 P. then dull.	21		
	22	125		634		46.0	37.4	84.0	36.9	43.2	38.3	40.8	39.3	.12	E	0.1	SE	0.1		10	10	1.02							Dull with heavy R. at night.	22		
	23	29.921		29.881		50.3	38.4	93.2	40.2	44.3	42.1	44.0	43.6	.06	E	1	E	1.2		10	10	.24							Dull with rain at night.	23		
	24	791		933		44.4	40.3	66.7	41.2	42.5	41.5	41.2	38.7	—	E	1.2	E	1		10	10	—							Dull. More temp. only 44.4. at times.	24		
	25	30.038		30.114		52.9	37.9	113.3	36.0	48.2	44.0	42.4	40.0	—	NE	1.2	E	0.1		7	10	6.53							Sunny till noon then dull.	25		
	26	195		286		53.4	37.8	116.5	32.6	49.6	43.5	45.0	40.3	—	E	0.1	E	0.1		5	7	8.17							Fine very clear. Calm A.M.	26		
	27	375		440		57.9	39.3	111.2	36.0	52.5	47.2	46.0	43.0	—	SE	0.1	E	0.7		0	0	13.47							Fine sunny.	27		
	28	478		453		63.0	39.5	111.4	37.2	56.6	49.6	52.1	48.6	—	NW	0.7	Cal	0		0	0	13.13							Fine and warm.	28		
	29	423		366		68.3	43.4	120.3	41.2	57.7	51.8	58.4	50.0	—	W	1	W	0.7		9	10	8.36							Fine & warm.	29		
	30	270		209		67.1	48.5	120.9	43.3	59.3	52.0	55.3	49.0	—	W	1	W	0.7		5	10	3.02							Rather dull & hazy.	30		
	31	264		262		70.8	51.4	116.9	48.2	62.4	54.0	59.3	52.3	—	W	1.2	Cal	0		2	0	12.44							Warm. Rather hazy P.M.	31		
Sums.		13143		13143		931	203	1416	2706	2483	1344	1593	825	3.50		31.0	22.5		221	192	1653											
Means.																																
+ Total Corrections for Instrumental Errors.																																
+ Corrections for Diurnal Range.																																
"Corrected Means."		30.029		30.029		53.0	40.7	104.6	39.7	48.0	44.5	45.1	42.7			1.00	0.73		71	62		482	481	468								
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 \ddagger = *30.029*
for Temp. (Col. 2), =
"Corrected Mean" of Barometer at 9 P.M., minus the Correction \ddagger = *30.029*
for Temp. (Col. 4), =
Mean at Station, corrected, and at 32°, = *29.729*
Correction for height, feet above Mean Sea-level, = *304*
Mean, reduced to 32°, and Sea-level, 30.033 = *30.033*
Highest Reading, corrected for Index error, on the *6* th, = *30.570*
Lowest Do. Do., on the *15* th, = *29.269*
Difference, or Monthly Range, = *1.301*

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the *31* th, = *70.8*
Lowest in Month, corrected for Index errors, on the *6* th, = *33.2*
Difference, or Monthly Range, = *37.6*
"Corrected Mean" of all the Highest, (Col. 5), = *53.0*
"Corrected Mean" of all the Lowest, (Col. 6), = *40.7*
Difference, or Mean Daily Range, = *12.3*
** Calculated Mean Temperature of Month, = *46.8*
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the *30* th, = *120.9*
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = *104.6*
Lowest at Night, Black Bulb (corrected for Index errors), on the *6* th, = *31.5*
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = *38.7*
Difference of above means or range ("exposed"), = *63.9*

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), = *43.6*
 \ddagger Computed Temperature of Dew-Point, = *40.3*
 \ddagger Do. Elastic Force of Vapour, = *2.50*
 \ddagger Do. Weight of Vapour in a Cubic Foot of Air, =
 \ddagger Relative Humidity (Saturation = 100), = *79*
RAIN fell on *15* Days; Amount in Inches, = *3.80*

WIND.		SUMMARY.				
Direction.		N	NE	E	SE	S
A.M.		1	2	17	4	
P.M.			3	17	1	
Mean.		1	2	17	2	0

Direction.		SW	W	NW	Calms or Variable.	Mean Force.	Mean Velocity in miles per day
A.M.			6	1		1.00	
P.M.			6		4	.73	
Mean.			6		2	.86	

Observations made and
Return verified by

(Signed)

R. C. Mossman.

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Blacket St. Edinburgh, County of Edinburgh, in Lat. 53° 3' N Long. 3° 12' W, Distance from Sea 2 miles.

Height of Cistern of the Barometer above Mean Sea-Level 276 feet, above Ground 20 feet.

During the MONTH of June

1899.

The Hours of Observation are of Greenwich Time.

[illegible]

BAROMETER, "corrected Mean" at 9 A.M., *minus* the Correction †† } =
for Temp. (Col. 2), =—..... }

"Corrected Mean" of Barometer at 9 P.M., *minus* the Correction †† }
 for Temp. (Col. 4), = }

Mean at Station, corrected, and at 32°,..... = 29.779

Correction for height, feet above Mean Sea-level,..... = 278

Mean, reduced to 32°, and Sea-level, = 30.057

Highest Reading, corrected for Index error, on the 8th,..... = 30.521

Lowest Do. Do., on the 20th,..... = 29.484

Difference, or **Monthly Range**, = 1.032

* Each instrument tested at the Office in Edinburgh bears the stamp "S.M.S."; and a number to be entered in the Heading; or the number of the Office in which the instrument was tested.

Number and initials of the reader may be here given.
Embracing corrections for both capillarity and Index Errors.
The Diurnal Range for Scotland is as yet unknown.
Practically, though not *absolutely* a minus correction.

* While the Diurnal Range is unknown, the Arithmetical Mean of Cols. 5 and 6 will be entered as the "Calculated Mean Temperature."

must be marked as such by the observer, in each sentence. See 0007.

S.-R. THERMOMETER, (in shade, etc.), **Highest in Month**, (corrected for Index Errors), on the / 2 th,

Lowest in Month, corrected for Index errors, on the 3rd th, =

Difference, or **Monthly Range**, =

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

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

Difference, or **Mean Daily Range**, =

** Calculated Mean Temperature of Month, =

S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 24th,..... =

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

Lowest at Night, Black Bulb (corrected for Index errors), on the 3rd, =

"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), =

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

†† Computed Temperature of Dew Point

<p>†† Computed Temperature of Dew-Point,</p> <p>†† Do. Elastic Force of Vapour</p>	<p>.....</p> <p>.....</p>
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†† Do. Weight of Vapour in a Cubic Foot of Air. =

Relative Humidity (Saturation = 100), =

RAIN fell on 8 Days; Amount in Inches, =

WIND.	SUMMARY.
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Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	M F
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A.M.	1	1	12	2	0	1	9	2	2	0
------	---	---	----	---	---	---	---	---	---	---

P.M	3	10	2	1	1	11	2
-----	---	----	---	---	---	----	---

Mean.	1	2	11	2	0	1	10	1	2
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Interdiurnal Temperature Variability

du T. 9AM 4.04. Earth T 3 ins 1.59, 12 ins 0.53, 22 ins 0.40

(Signed) Robert P. Cleggman, Esq.

Observations made and
Return verified by

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Black & R. Edinburgh County of Edinburgh, in Lat. 55° 57' N Long. 3° 12' W Distance from Sea 2 miles.Height of Cistern of the Barometer above Mean Sea-Level 276 feet, above Ground 20 feet.During the MONTH of July 1899.

The Hours of Observation are of Greenwich Time.

Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER.				Rain.	WIND.				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.		9 h. P.M.											
	Barometer. * No.	Attached Thermometer No.	Barometer. No.	Attached Thermometer No.	Max. No.	Min. No.	Max. in Sunrays No.	Min. on Grass. No.	Dry bulb. No.	Wet bulb. No.	Dry bulb. No.	Wet bulb. No.		No. of hours in which it fell.	Amount in inches. No.	Direction. No.	Force No.	Direction. No.	Force No.	Readings of the H. Cup Anemometer. No.	Velocity (0-6) and Direction. No.	Amount (0-10), and Species. No.	Velocity (0-6) and Direction. No.	Amount (0-10), and Species. No.	SUNSHINE. Hours.					No. 3 inches. No.	No. 12 inches. No.	No. 22 inches. No.	Temperature of WELL at depth of feet, No.	Temperature at 1 fathom, and Density.	0-10. 9 A.M. 9 P.M.
1	29.445		29.366		54.9	52.0	71.6	50.1	54.8	53.7	52.4	52.0	1.24	E	1	NE	1			10		10										Heavy rain most of day, much on hills. Very fine 2.04 to 2.45, 0.52 in. feet.	2		
2	405		667		57.4	52.4	90.7	52.4	53.9	54.5	53.0	54.0	87	N	0.1	NE	0.1			10		10										Cloudy rain at times	3		
3	867		30.014		63.1	52.6	115.2	50.9	63.0	58.1	60.9	57.4	0.5	W	1	NW	0.1			9		10	2.58								Fine & cloudy at times	4			
4	30.099		168		66.0	53.7	120.8	52.1	61.0	56.1	59.1	53.3		W	0.1	E	0.1			10		9	3.47								Fine warm sunny	5			
5	181		205		71.8	58.0	117.0	46.3	62.1	58.0	53.3	53.9		N	0.1	N	0.1			10		10	4.23								Heavy dew very heavy, drizzling.	6			
6	216		210		73.0	53.8	116.4	50.0	66.8	61.9	64.1	60.0		NW	0.1	W	1			8		2	4.08								Warm + clearing. R.P.M.	7			
7	180		129		72.9	57.0	126.9	53.4	71.0	64.8	64.8	61.2	1.0	W	0.1	W	0.1			5		6	4.23								Close & cloudy.	8			
8	122		106		68.2	56.9	121.9	53.2	63.0	58.4	56.9	53.6		W	0.1	W	0.1			8		1	6.13									Warm & drizzling.	9		
9	29.914		29.845		63.7	50.0	127.7	48.2	65.8	59.9	61.0	57.7	0.8	W	1.2	W	1.2			10		10	1.17									R. during night	10		
10	897		918		60.3	53.1	113.8	53.2	57.0	54.8	56.0	53.0		W	0.1	E	0.1			10		10	5.2									R. at times. Dull throughout	11		
11	881		857		58.3	52.7	78.9	51.2	58.5	53.3	53.2	52.8	1.8	E	0.1	E	0.1			10		10										H.R. 1-4 P with the and mist	12		
12	759		779		56.6	53.2	61.4	51.0	54.7	54.4	57.0	56.6	1.4	E	0.1	Calm	0			10		10										R. at night. Sunny during day.	13		
13	963		904		67.9	52.2	128.2	51.5	59.9	53.8	57.4	53.4		W	1	SSW	0.1			3		10	12.25									Sunny after 1 P.	14		
14	919		976		65.3	53.3	130.0	53.2	63.8	58.6	58.3	53.0	0.1	WSW	1	W	0.1			10		1	4.70									Fine sunny at times	15		
15	30.042		30.097		69.4	52.8	129.0	56.2	62.2	57.0	58.7	54.7		W	0.1	W	0.1			9		1	6.32									Sunny till noon then dull. Slight R.	16		
16	132		137		70.6	53.2	129.4	50.2	68.1	60.0	60.2	54.5		W	1.2	W	1			9		9	8.22									Heavy R. at times. J.S. 3.30 P.	17		
17	117		063		66.5	54.5	104.2	51.7	63.2	60.0	61.1	57.4	1.0	W	0.1	W	0.1			10		10	4.07									Dull. R. at times	18		
18	030		29.983		67.9	54.0	98.7	51.0	64.8	60.7	61.1	60.0	3.7	W	1.2	Calm	0			10		10										Dull. Mist on hills at night	19		
19	29.927		30.006		65.9	56.7	110.3	54.7	59.9	57.7	56.9	56.2		SW	0.1	E	0.1			10		10	2.2									Dull. Mist on hills	20		
20	30.162		173		58.0	53.0	83.7	53.9	53.0	52.3	53.1	54.0	0.6	E	0.1	E	0.1			10		10										Cloudy a little sunshine at times	21		
21	148		135		59.9	53.9	94.6	52.0	56.0	53.3	59.3	57.7		SE	0.1	SE	0.1			10		10										Cherishy.	22		
22	135		052		64.7	53.7	105.3	54.0	61.1	58.8	59.4	57.4		E	0.1	SE	0.1			10		10	6.7									Dull throughout. Close	23		
23	29.938		29.916		59.9	53.8	80.7	56.1	59.6	57.9	58.0	56.6	0.6	E	0.1	Calm	0			10		10										Fine sunny at times	24		
24	953		30.039		68.1	57.3	120.9	56.2	63.5	59.8	58.8	53.0	0.1	W	1.2	W	1.2			10		1	8.35									Dull. d. at times.	25		
25	951		29.806		66.9	53.5	119.9	51.1	61.7	58.0	64.2	63.0	0.6	W	1.2	W	1.2			10		10	5.3									Sunny till 11.2 then dull	26		
26	966		30.127		61.9	52.8	115.1	50.0	62.1	54.3	53.3	50.5		W	1.3	W	1.2			9		2	6.52									Sunny till 2 P then dull	27		
27	30.195		289		64.7	51.6	113.2	49.0	62.0	55.0	56.0	53.8	0.5	W	1.2	W	1.3			3		10	6.85									Dull till 4 P	28		
28	231		130		60.0	53.3	82.7	52.3	56.5	54.0	56.0	55.3		W	1.2	W	1.2			10		10	1.97									Fine sunny after 10 A	29		
29	069		114		69.1	54.1	124.7	53.0	63.1	58.7	59.7	57.4		SW	1.2	SW	1.2			10		4	8.65									Sunny. Very warm	30		
30	251		362		76.5	54.3	106.7	51.0	69.0	62.0	63.0	61.6		W	1.2	W	1.2			5		6	9.17									Fine during. Very warm	31		
31	429		391		78.0	57.7	120.0	54.3	67.5	62.5	69.6	64.3		NW	0.1	W	0.1			1		4	12.69												
Sums.	524		996		1783	1174	2600	586	54.6	2387	2734	1950	3.98	28.0		24.0			26.9		23.6	118.13													
Means.														9.0		7.7																			
+ Total Corrections for Instrumental Errors.																																			
+ Corrections for Diurnal Range.																																			
** Corrected Means.	30.017		30.032		65.6	53.8	108.4	51.9	61.8	57.7	58.8	56.3		9.0		7.7			8.6		7.6	59.5	58.4	56.8											
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 \ddagger =
for Temp. (Col. 3), =
Corrected Mean of Barometer at 9 P.M., minus the Correction \ddagger =
for Temp. (Col. 4), =
Mean at Station, corrected, and at 32°, = 29.728
Correction for height, feet above Mean Sea-level, = 296
Mean, reduced to 32°, and Sea-level, = 30.024
Highest Reading, corrected for Index error, on the 31th, = 30.429
Lowest Do. Do., on the 1th, = 29.366
Difference, or Monthly Range, = 1.063

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 21th, = 78.0
Lowest in Month, corrected for Index errors, on the 5th, = 48.0
Difference, or Monthly Range, = 30.0
"Corrected Mean" of all the Highest, (Col. 5), = 65.6
"Corrected Mean" of all the Lowest, (Col. 6), = 53.8
Difference, or Mean Daily Range, = 11.8
** Calculated Mean Temperature of Month, = 59.7
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 4th, = 130.0
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 108.4
Lowest at Night, Black Bulb (corrected for Index errors), on the 5th, = 46.3
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 51.9
Difference of above means or range ("exposed"), = 56.3

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 60.3
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 57.0
 \ddagger Computed Temperature of Dew-Point, = 54.2
 \ddagger Do. Elastic Force of Vapour, = 1.421
 \ddagger Do. Weight of Vapour in a Cubic Foot of Air, = 80
 \ddagger Relative Humidity (Saturation = 100), = 3.98
RAIN fell on 15 Days; Amount in Inches, = 3.98

WIND.	SUMMARY.												Mean Force.	Mean Velocity in miles per day
	Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.				
A.M.	2		6	1		2	14	2			9.0			
P.M.	1	2	5	2	1	1	15	1	3		7.7			
Mean.	2	1	6	1	1	2	16	1	1		8.4			

Observations made and
Return verified by

(Signed) Robert B. Mofsmann.

INSTRUCTIONS

FOR TAKING METEOROLOGICAL OBSERVATIONS,

WITH REMARKS ON THE USE OF INSTRUMENTS.

One of the chief objects that the SCOTTISH METEOROLOGICAL SOCIETY proposed to itself when the Society was established in 1855, was to secure perfect uniformity in the system of observation pursued at all its Stations. Uniformity in the observations is absolutely necessary to justify the publication of Monthly Results from different Observations, it being found that differences between the Returns from 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 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.

The Council recommend that Observations be made precisely at 9 A.M. and 9 P.M. (Greenwich or Railway Time only), as specified in the following remarks, or at the top of observation. of the columns 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 the time at which it was taken, if not at 9 A.M. or 9 P.M. Weather-Glasses and Aneroids, though well suited to indicate roughly variations of atmospheric pressure, are not fitted for scientific purposes. No Barometer should be used for Meteorological Observation that is not supplied with some means of adjustment or compensation which will secure that the height of the mercury in the tube is accurately measured from the fluctuating surface of the mercury in the cistern.

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

The Barometer originally constructed by Mr. Adie of London, and usually called the Board of Trade Barometer, has the great convenience of requiring no adjustment of the cistern. Its scale-inches 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 falling very rapidly, with the result that none of the readings differed from those of the Standard more than 0.003 inch.

A modification of Forstner's Barometer is used at a number of the Society's Stations, by which the coincidence of the zero point with the surface of the mercury is 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 scale is graduated. In taking an observation, this preliminary setting will vitiate the readings from the vernier.

It is absolutely necessary that the Barometer which is to be used shall have been compared with a Standard Barometer. The Barometer should be suspended in as good a light as can be secured, and to facilitate the reading a piece of white paper may 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, 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, when read, at one uniform temperature, it is evident that the best position for it is that in which it 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 cistern-adjustment 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 vernier, which must be carefully adjusted so as to form exactly 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 facilitate an accurate adjustment and reading of the Barometer. A mistake not unfrequently made by those beginning to observe, consisting in setting the edge of the vernier to the level of the clear surface of the mercury which is in direct contact with the glass tube, must be carefully avoided.

The errors most frequently made in reading the Barometer are errors of 1.000 inch, 0.500 inch, and 0.050 inch; that is to say, instead of 29.365 inches, either of the following is sometimes set down—viz. as 30.365 inches, 28.365 inches, 29.865 inches, or 29.815 inches. Experience having shown that even the very best Observers make these mistakes, particular attention is directed to the matter. When a Barometer having adjustable surfaces has to be removed from its fastenings, the ivory peg must first be scraped so as to form a tight plug to the cistern, thus preventing the escape of the mercury. Then screw up the mercury not quite to the top of the tube, but to within a quarter of an inch of it, 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 if, on inclining the instrument, a sharp tap 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 in being roughly handled, it may be useful to Observers to know how the air may be expelled. First close up the cistern by screwing the ivory peg tight, so as to prevent the escape of mercury; then screw up the mercury to about half an inch from the top of the tube; and having slowly inverted the instrument, place the top of it on a yielding substance, such as the foot, and gently tap on the cistern with the palm of the hand, so as to induce the air to ascend through the column of the cistern, 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, it is 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 air has been expelled. On hanging up the Barometer, care must be taken to screw down the mercury in the tube before unfastening the float of the cistern, for, if this be not attended to, the mercury will flow out, and the instrument be seriously damaged.

The Council of the Society recommend that the Self-Registering Thermometers, and the Dry and Wet Bulb Hygrometers, be kept in Stevenson's Louver-boarded Boxes, and that the Thermometers, painted white inside and outside, and fixed in the ground. The posts must be of such a length that when the Thermometers are hung in position the Bulbs of the Minimum Thermometer, and of the Dry and Wet Bulb Thermometers, will be exactly at the same height of four feet above the ground, the Maximum Thermometer being hung immediately above the Minimum Thermometer. The Thermometer Box is to be placed over the Hygrometers, and in a free and open space to which the winds have free access, and as much of the day as surrounding conditions enable the Observer to secure. The Thermometers are suspended on cross-laths in the centre of the Box, and the door, which should open to the north, is to be kept closed.

The Council regard the question of UNIFORMITY OF HEIGHT ABOVE GROUND, AND POSITION IN REGARDING THE THERMOMETERS, as vital in every system of Meteorological Observation, since without it Observations made at different Stations are incomparable, thus rendering impossible to compile the Climates of places with each other, or to regard their most important features.

Professor Phillips, and Negretti and Zambra's Maximum Thermometers, and Self-Registering and Minimum Thermometers, are recommended. It is recommended that these Thermometers be graduated on the Fahrenheit scale. The Minimum Thermometer is liable to two elongations—viz. the column of spirit breaking, and part of the spirit falling by high temperature and lodging at the top of the tube. This elongation is of occasional occurrence with protected Thermometers, but of frequent occurrence with exposed Thermometers. Hence a systematic examination of Minimum Thermometers ought to be a regular part of the work carried on by each Observer.

Fortunately, Spirit Thermometers may be easily set right by any one, when the column of spirit changes by separation. Let the Thermometer be taken in the hand by the end farthest 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 throws, or swinging strokes, will generally be sufficient for the purpose; after which the Thermometer should be placed in a standing position, to allow the rest of the spirit still adhering to the sides of the tube to drain 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 end of the tube where the detached portion of spirit is, which, being turned into vapour by the heat, will condense on the surface of the unbroken column of spirit. Care must be taken that the heat is not applied too quickly; for, if it be done so, the air will break and the instrument be spoiled. 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 it gives not at hand, a piece of heated metal will serve instead.

The bulbs of the Thermometers for registering the greatest heat from the sun's rays, and the least from radiation during night, have a black coating, which may easily be made or renewed, by the application of a mixture of lampblack and printer's ink. They are placed in shallow blackened boxes, whose sides protect the bulbs from the wind. The Maximum boxes should freely expose the bulb to the sun, and the Minimum 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. Black-balls enclosed in 'glass jackets' may also be used, being indeed preferable to the above. It must, however, be added, that the whole subject of the observation of Solar and Terrestrial Radiation is not yet in a sufficiently advanced state to warrant the exclusive recommendation of any one of these methods.

The Hygrometer in use at the Society's Stations consists of two Dry and Wet Bulb on one frame. As apparently slight variations from the Hygrometrical Observations, 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 altogether placed to the side, and a little below the level of the wet bulb, but in no case under the bulb; a little 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 cloth of ice thus formed evaporation will proceed as from the moist cloth in ordinary circumstances.

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In reading the Thermometer great care must be taken to bring 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° 4, 40° 0, or 40° 1; or again, 40° 4, 40° 5, 40° 6, according as it indicates a little under, an exact coincidence with, or a little over 40°, or 40½, respectively. So also 40½, or 40¾, more or less, must be registered 40° 2, or 40° 3, or 40° 6, or 40° 8 respectively. In reading Rutherford's Minimum Thermometer, the indication of that end of the index which is next the surface of the spirit is alone noted. On opening the Thermometer Box, the Dry and Wet Bulb Thermometers are to be first, and rapidly, read, inasmuch as they are readily affected by heat from the person of the Observer.

The Hygrometer is read at 9 A.M. and 9 P.M. The Self-Registering Thermometers are read at 9 P.M. only, as, 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 schedule, the indications registered on the 3d are those of a series of phenomena commencing at 9 P.M. on the 2d, and extending till 9 P.M. on the 3d. 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 attached scale, undergo repairs, they are very liable to be moved from their position on the Scale, and ought never afterwards to be used 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 a year, in snow or melting ice.

In selecting instruments, the following points require attention:—The divisions of the vernier of the Barometer in reference to their scales, and the perfect freedom of the Barometer from air; the Hygrometer usually, but not necessarily, mounted on a wooden frame. As apparently slight variations from the Hygrometrical Observations, 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 altogether placed to the side, and a little below the level of the wet bulb, but in no case under the bulb; a little 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 cloth of ice thus formed evaporation will proceed as from the moist cloth in ordinary circumstances.

In reading the Thermometer great care must be taken to bring 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° 4, 40° 0, or 40° 1; or again, 40° 4, 40° 5, 40° 6, according as it indicates a little under, an exact coincidence with, or a little over 40°, or 40½, respectively. So also 40½, or 40¾, more or less, must be registered 40° 2, or 40° 3, or 40° 6, or 40° 8 respectively. In reading Rutherford's Minimum Thermometer, the indication of that end of the index which is next the surface of the spirit is alone noted. On opening the Thermometer Box, the Dry and Wet Bulb Thermometers are to be first, and rapidly, read, inasmuch as they are readily affected by heat from the person of the Observer.

OBSERVATIONS IN CONNECTION WITH THE PERIODICAL RETURN OF THE SEASONS.

First Out	In Flower	In Fruit	In Leaf	In Blossom	In Fruit	In Seed	In Husk	In Shell	In Pod	In Bark	In Root	In Stem	In Twig	In Branch	In Tree	In Field	In Garden	In Wood	In Park	In Pleasure Ground	In Road	In Street	In Town	In Village	In Hamlet	In Farm	In Cottage	In House	In Shop	In Office	In Public House	In Tavern	In Inn	In Hotel	In Restaurant	In Cafe	In Tea Room	In Coffee House	In Billiard Room	In Library	In Museum	In Gallery	In Theatre	In Circus	In Amphitheatre	In Hippodrome	In Stadium	In Gymnasium	In School	In College	In University	In Hospital	In Workhouse	In Prison	In Jail	In Court	In Hall	In Chamber	In Bed Room	In Bath Room	In Dressing Room	In Parlor	In Drawing Room	In Billiard Room	In Library	In Museum	In Gallery	In Theatre
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SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Blackfriars, Edinburgh, County of Edinburgh, in Lat. 55° 57' N, Long 3° 12' W, Distance from Sea 2 miles.

Height of Cistern of the Barometer above Mean Sea-Level 254 feet, above Ground 20 feet.

During the MONTH of August 1899.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER.				Rain.	WIND.				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. Sun's rays on Grass.		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.	Attached Thermometer	Barometer. No.	Attached Thermometer	Max. No.	Min. No.	Max. No.	Min. No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.		No. of hours in which it fell.	Amount in inches.	Direction.	Force.	Direction.	Force.	Velocity (0-6), and Direction.	Amount (0-10), and Species.	Velocity (0-6), and Direction.	Amount (0-10), and Species.	No. 3 inches.	No. 12 inches.						No. 22 inches.	Temperature of WELL at depth of feet, No.	Temperature at 1 fathom, and Density.	9 A.M.	9 P.M.
		* No.	inches.	°	inches.	°	°	°	°	°	°	°	°		°	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.						No.	No.	No.	No.	No.
	1	30.314		30.271		79.0	59.0	127.9	56.2	72.5	65.6	70.1	66.1	—	—	W	1-2	Calm	0	0	1	12.50										1				
	2	200		214		79.9	57.7	125.9	58.1	66.7	62.7	57.3	56.9	—	—	W	0-1	E	0-1	0	10	10.19										2				
	3	160		127		64.2	53.8	78.6	57.5	58.9	57.8	61.4	59.0	—	—	E	0-1	Calm	0	10	9	—										3				
	4	100		114		67.9	56.4	119.4	56.0	60.2	56.8	57.3	55.0	—	—	S.E.	0-1	S	0-1	10	10	2.17										4				
	5	130		152		62.0	53.8	87.7	52.3	59.0	53.6	56.5	54.0	—	—	E	0-1	E	0-1	10	10	—										5				
	6	104		1082		57.1	53.7	74.4	52.0	56.7	53.8	54.2	52.7	13	—	E	0-1	E	0-1	10	10	—										6				
	7	115		196		56.7	51.3	77.8	50.0	53.8	52.9	52.5	50.0	0.1	—	E	1-2	E	0-1	10	9	—										7				
	8	188		207		62.0	50.2	120.7	50.1	55.1	51.7	53.7	50.5	—	—	Calm	0	Calm	0	10	10	19.7										8				
	9	291		230		63.0	51.4	117.7	50.0	53.3	50.1	54.1	51.0	—	—	N	0-1	SE	0-1	10	0	7.61										9				
	10	253		265		71.1	47.0	119.9	46.4	60.0	56.6	61.2	57.0	—	—	NE	0	E	0-1	0	8	11.77										10				
	11	314		308		78.1	53.6	125.4	52.9	62.6	58.0	59.5	57.7	—	—	N	0-1	E	0-1	0	2	6.72										11				
	12	288		323		78.6	52.9	124.4	49.5	65.1	60.1	58.5	57.3	—	—	Calm	0	NE	0-1	0	10	11.97										12				
	13	292		244		68.5	55.8	106.6	57.9	62.4	59.1	60.1	59.1	—	—	W	0-1	Calm	0	10	10	2.98										13				
	14	203		054		71.5	54.1	114.9	52.0	59.7	58.8	61.8	59.7	—	—	E	0	Calm	0	10	8	8.44										14				
	15	29.918		001		88.0	54.4	118.6	53.4	62.0	60.1	56.0	52.3	0.1	—	E	0-1	Calm	0	10	0	2.25										15				
	16	30.025		29.779		64.8	49.0	116.0	46.0	62.0	54.1	56.3	52.5	—	—	NW	0-1	W	2-3	8	7	4.80										16				
	17	29.957		30.055		63.5	52.4	117.8	48.9	58.8	53.8	53.0	50.0	—	—	NW	0-1	Calm	0	7	1	4.37										17				
	18	30.108		160		67.2	49.6	113.9	45.9	55.0	52.0	57.0	54.8	—	—	W	1	Calm	0	10	1	5.78										18				
	19	183		199		61.5	52.6	77.9	48.5	54.5	53.0	57.0	56.0	0.2	—	Calm	0	Calm	0	10	10	—										19				
	20	256		293		72.9	53.4	117.5	53.4	60.0	62.3	62.0	59.7	—	—	Calm	0	Calm	0	10	8	3.02										20				
	21	289		298		76.1	55.3	127.3	52.0	65.2	62.9	68.0	64.0	—	—	Calm	0	W	0-1	9	5	3.11										21				
	22	269		249		77.5	54.1	117.2	52.0	69.3	63.1	63.0	60.6	—	—	Calm	0	Calm	0	0	0	10.22										22				
	23	251		160		71.6	54.0	119.5	51.2	64.5	62.0	58.2	57.0	—	—	Calm	0	Calm	0	0	7	9.80										23				
	24	073		29.949		82.7	54.6	128.1	52.7	64.0	60.0	67.6	63.7	—	—	E	0-1	E	0-1	0	0	10.88										24				
	25	29.964		897		80.6	56.0	129.8	52.4	62.5	59.3	65.0	61.1	—	—	E	0-1	SW	2-3	4	5	7.75										25				
	26	30.073		963		73.4	54.2	121.4	51.4	64.1	60.2	60.0	56.3	—	—	N	0-1	ENE	0-1	2	4	10.65										26				
	27	29.765		742		67.9	52.0	100.6	47.0	62.0	58.3	62.1	59.3	0.4	—	SE	0-1	E	0-1	10	4	1.36										27				
	28	727		764		66.4	52.0	101.3	47.4	60.3	58.4	57.0	54.0	0.2	—	WNW	0-1	Calm	0	4	0	2.48										28				
	29	763		630		68.6	48.0	122.0	44.5	64.8	59.0	59.3	57.0	2.8	—	E	0-1	SW	0-1	3	10	3.83										29				
	30	566		658		66.0	56.0	123.1	53.7	62.6	58.8	56.0	52.1	0.4	—	W	1-2	W	1-2	8	10	2.67										30				
	31	669		623		66.1	52.9	117.9	50.0	61.4	56.3	56.0	53.2	—	—	W	1-2	W	0-1	7	10	6.44										31				
	Sums.	1015.13		1110.13		2467	1082	3417	383	450	2432	2312	1911	5.5	—	15.5	14.0			192	193	164.98														
	Means.	2508		2237		2967	1082	3417	383	450	2432	2312	1911	5.5	—	15.5	14.0			192	193	164.98														
	† Total Corrections for Instrumental Errors.																																			
	† Corrections for Diurnal Range.																																			
	†† Corrected Means.	30.091		30.072		69.6	53.4	112.6	51.2	61.5	57.8	59.1	56.4			50	45			62	62															
	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.	aurora.	m.	denotes meteor.
ci.	cirrus.	ms.	" meteors.
ci-cu.	cirro-cumulus.	n.	" nimbus.
cu.	cumulus.	r.	" rain.
cu-s.	cumulo-stratus.	c. h. r.	" continued heavy rain.
d.	dew.	s.	" stratus.
f.	fog.	sc.	" squall.
fr.	frost.	s.	" sleet.
h.-fr.	hoar-frost.	s.	" snow.
h. d.	haze.	so. ha.	" solar halo.
h. l.	heavy dew.	sq.	" squall.
hl.	hall.	sqs.	" 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 †† =
for Temp. (Col. 2), =
"Corrected Mean" of Barometer at 9 P.M., minus the Correction †† =
for Temp. (Col. 4), =
Mean at Station, corrected, and at 32°, = 29.786
Correction for height, feet above Mean Sea-level, = 2.96
Mean, reduced to 32°, and Sea-level, = 30.082
Highest Reading, corrected for Index error, on the 12th, = 30.323
Lowest Do. Do., on the 30th, = 29.566
Difference, or Monthly Range, = 0.757

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 29th, = 82.7
Lowest in Month, corrected for Index errors, on the 10th, = 47.0
Difference, or Monthly Range, = 35.7
"Corrected Mean" of all the Highest, (Col. 5), = 69.6
"Corrected Mean" of all the Lowest, (Col. 6), = 53.4
Difference, or Mean Daily Range, = 16.2
** Calculated Mean Temperature of Month, = 61.5
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 12th, = 129.8
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 112.6
Lowest at Night, Black Bulb (corrected for Index errors), on the 17th, = 44.3
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 51.2
Difference of above means or range ("exposed"), = 61.4

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 60.3
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 57.1
†† Computed Temperature of Dew-Point, = 54.3
†† Do. Elastic Force of Vapour, = .422
†† Do. Weight of Vapour in a Cubic Foot of Air, =
†† Relative Humidity (Saturation = 100), = 81
RAIN fell on 8 Days; Amount in Inches, = 0.53

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.
A.M.		3	1	9	2			7	2	7
P.M.			1	9	1	1	2	4		13
Mean.		2	1	9	1	1	1	5	1	10

0.22

* Bar readings from 9 P.M. of 23rd to 9 A.M. of 28th interpolated from Leith in observer's absence.

Observations made and
Return verified by

(Signed) Robert A. C. Massman.

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Edinburgh (Blackfriars), County of Edinburgh, in Lat. 55°57'N, Long. 3°12'W, Distance from Sea 2 miles.Height of Cistern of the Barometer above Mean Sea-Level 276 feet, above Ground 20 feet.During the MONTH of September 1899.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER.				Rain.		WIND.				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.		No. of hours in which it fell.		Amount in inches.		9 h. A.M.		9 h. P.M.		Readings of the H. Cup Anemometer. No.		9 A.M.		P.M.						9 h. A.M.		No. 3 inches.		No. 12 inches.		No. 22 inches.		Temperature of Air at 5 feet.	Temperature of Surface of Water.	Temperature of Air at 2 feet and Density.	0-10.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		Barometer.	Attached Thermometer.	Barometer.	Attached Thermometer.	Max.	Min.	Max.	Min.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Velocity (0-6) and Direction.	Amount (0-10), and Species.	Velocity (0-6) and Direction.	Amount (0-10), and Species.	Hours.	No. 3 inches.	No. 12 inches.	No. 22 inches.					9 A.M.	9 P.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		* No.	inches.	No.	inches.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.					No.	No.	No.	No.	No.	No.	No.	No.				No.	No.	No.	No.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
1	29.606	29.606	65.2	50.4	103.4	46.5	60.5	56.1	57.1	54.9	0.5	W	1-2	W	0.7		1	10	3.53																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction †† = 29.722
for Temp. (Col. 2), = 719
"Corrected Mean" of Barometer at 9 P.M., minus the Correction †† = 29.423
for Temp. (Col. 4), = 297
Mean at Station, corrected, and at 32°, = 29.720
Correction for height, feet above Mean Sea-level, = 297
Mean, reduced to 32°, and Sea-level, = 30.187
Highest Reading, corrected for Index error, on the 10th, = 29.100
Lowest Do. Do., on the 26th, = 1.087
Difference, or Monthly Range, = 1.087

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 4th, = 69.1
Lowest in Month, corrected for Index errors, on the 29th, = 37.2
Difference, or Monthly Range, = 31.9
"Corrected Mean" of all the Highest, (Col. 5), = 60.3
"Corrected Mean" of all the Lowest, (Col. 6), = 47.3
Difference, or Mean Daily Range, = 13.0
** Calculated Mean Temperature of Month, = 53.8
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 4th, = 122.1
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 102.7
Lowest at Night, Black Bulb (corrected for Index errors), on the 28th, = 33.5
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 44.2
Difference of above means or range ("exposed"), = 58.5

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 52.7
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 49.5
†† Computed Temperature of Dew-Point, = 46.4
†† Do. Elastic Force of Vapour, = 315
†† Do. Weight of Vapour in a Cubic Foot of Air, = 79
†† Relative Humidity (Saturation = 100), = 79
RAIN fell on 24 Days; Amount in Inches, = 3.78

WIND.		SUMMARY.				
Direction.	N	NE	E	SE	S	SW
A.M.	1	1	1			24
P.M.			1		23	2
Mean.	1	1	1	0	0	23

* Each instrument tested at the Office in Edinburgh bears the stamp "S.M.S."; and a number to be entered in the Heading; or the Number and Initials of the Maker may be here given.
† Embracing corrections for both capillarity and Index Errors.
†† The Diurnal Range for Scotland is as yet unknown.
††† These "Hygrometrical Deductions" are calculated from Glashier's Hygrometrical Tables, Second Edition only.
†††† While the Diurnal Range is unknown, the Artificial Mean of Cols. 5 and 6 will be entered as the "Calculated Mean Temperature."
Any observations not taken under the Conditions specified in the Directions on the other side, or noted at the Top of each column, must be marked as such by the observer, in each Schedule. See over.

Observations made and
Return verified by

(Signed)

R.C. Morrison

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Blackfriars Pl. Edinburgh County of Edinburgh, in Lat. 55° 57' N Long. 3° 12' W Distance from Sea 2 miles.
Height of Cistern of the Barometer above Mean Sea-Level 276 feet, above Ground 20 feet. During the MONTH of October 1899.
The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER.				Rain.	WIND.				CLOUDS.				THERMOMETERS under Ground.				SEA.	OZONE.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression of 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.		9 h. P.M.												
		Barometer.	Attached Thermometer.	Barometer.	Attached Thermometer.	Max.	Min.	Max.	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.		No. of hours in which it fell.	Amount in inches.	Direction.	Force.	Direction.	Force.	Readings of the H. Cup Anemometer. No.	Velocity (0-10), and Species.	Amount (0-10), and Species.	Velocity (0-10), and Species.	Amount (0-10), and Species.	No. 3 inches.					No. 12 inches.	No. 22 inches.	Temperature of WELL at depth of feet, No.	Temperature at 1 fathom, and Density.	0-10.	9 A.M.	9 P.M.
		* No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.					No.	No.	No.	No.	No.	No.	No.
		inches.	°	inches.	°	°	°	°	°	°	°	°	°																								
	1	29.530		29.502		51.3	48.4	67.3	48.3	50.7	50.0	49.3	47.9	.48	E	1-2	E	1-2			10	10	—											Dull throughout. R at times	1		
	2	565		633		54.1	45.8	97.1	44.3	47.0	44.1	48.6	45.4	—	NE	0.1	W	1-2			10	10	3.69											Fire & Sun	2		
	3	439		396		57.9	45.9	94.6	46.7	54.7	51.6	46.5	44.0	.11	W	2.4	W	2.4			10	10	—											Dull. Parting Showers	3		
	4	689		30.059		55.0	41.2	100.4	38.1	47.6	43.5	46.4	43.5	.03	W	1-2	Calm	0			0	3	6.90											Hazy R at times. Sun	4		
	5	30.187		196		49.6	38.8	86.2	37.0	45.2	41.8	41.2	37.2	—	N	0.1	NW	0.1			7		3.07											Sunny P.M.	5		
	6	166		140		50.1	38.5	91.5		43.3	41.5	46.1	43.2	—	W	0.1	W	0.1					3.02											Do. R. Sun from 10A to 2 P.M.	6		
	7	182		323		58.8	42.0	109.8		46.2	44.4	50.1	48.9	—	NW	0.1	S.E.	0.1					4.98											Sunny. Very mild	7		
	8	350		264		54.4	42.0	74.3		50.0	48.3	50.1	47.8	.01	W	0.1	W	0.1					—												8		
	9	192		092		54.7	42.8	76.0		50.5	47.0	52.0	49.8	.01	W	0.1	SW	0.1					3.0												9		
	10	062		29.973		60.6	51.8	98.0		54.2	52.1	56.8	52.1	.01	SW	2.3	SW	1.3					2.88												10		
	11	29.782		525		60.7	52.6	105.0		53.1	51.8	57.5	53.1	.10	SW	1.2	SW	1.2					3.61												Rain at night	11	
	12	371		406		58.2	42.0	96.8		49.7	48.2	42.3	40.7	.03	W	1-2	W	1-2					2.78												12		
	13	712		959		57.8	38.3	99.8		42.0	38.2	40.8	39.0	—	NW	1.2	NW	0.1					6.81												Hail 10 P.	13	
	14	30.171		30.236		49.0	34.2	77.0		37.4	34.0	34.0	36.0	—	NW	0.1	NW	0.1					5.78												14		
	15	240		112		53.2	32.2	97.0		45.2	41.4	44.0	40.9	—	SW	0.1	SE	0.1					7.77												15		
	16	29.981		29.877		56.0	43.0	95.3		45.7	42.2	56.2	47.1	—	SW	0.1	E	0.1					5.41												16		
	17	984		30.125		61.9	46.4	88.3		54.2	51.4	57.0	53.2	—	SE	1	W	0.1					8	0.05											17		
	18	30.257		311		63.0	49.0	85.7	42.9	57.1	53.9	52.3	49.8	—	SE	0.1	Calm	0			8	2	44												18		
	19	339		288		67.0	44.2	104.6	39.1	48.7	46.5	46.5	42.1	—	Calm	0	Calm	0			0	0	5.98												19		
	20	326		419		61.1	37.9	92.2	31.0	42.0	40.0	44.2	42.4	—	N	0.1	E	0.1			0	0	3.80												20		
	21	486		438		53.3	41.9	82.5	39.6	49.3	48.1	43.0	41.8	—	SE	0.1	Calm	0			9	0	10												21		
	22	354		247		53.1	36.0	77.1	31.0	45.8	44.1	50.2	48.9	—	N	0.1	W	0.1			0	10	63												22		
	23	180		042		52.9	48.0	63.5	45.1	49.3	46.7	52.8	50.3	—	NW	0.1	W	1.3			10	10	—												23		
	24	287		362		52.4	40.7	80.0	35.6	43.0	40.4	42.3	39.4	—	W	1	E	0.1			1	10	2.58												24		
	25	230		29.900		56.9	39.3	60.8	32.9	45.2	44.2	56.0	53.0	.12	Calm	0	SW	2.3			10	10	—												25		
	26	29.663		649		57.1	50.3	78.0	46.0	56.3	54.4	50.3	47.5	.04	W	1.2	W	1			10	10	47												26		
	27	739		699		50.7	43.0	79.6	39.3	45.0	43.6	43.8	42.0	—	NW	1	Calm	0			7	0	2.77												27		
	28	574		647		53.9	40.7	92.6	37.1	46.5	44.5	49.0	46.0	.10	SSE	1.2	W	1.2			10	0	97												28		
	29	404		344		53.9	46.7	87.1	44.1	53.5	53.0	47.8	44.8	.15	SW	2.4	W	1.3			10	0	—												29		
	30	598		593		50.0	38.0	91.1	37.1	44.1	40.4	39.1	35.5	.35	W	1.2	NW	1.2			0	0	4.97												30		
	31	738		799		49.0	36.9	80.8	35.4	40.0	37.5	49.0	47.0	—	W	1.2	W	1.3			0	10	5.19												31		
	Sums.	29.75		29.556		636	735	27100		2465	1648	2422	1643	1.59	32.0	30.0						84.95															
	Means.					55.3	42.5																														
	+ Total Corrections for Instru- mental Errors.					40.4																															
	+ Corre- ctions for Diurnal Range.																																				
	"Cor- rected Means."	29.67		29.951		55.7	42.5	87.4		47.9	45.4	47.8	45.3	1.59	10.2	0.97																					
	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.	ms.	denotes meteor.		
ci.	" cirrus.	ms.	" meteors.		
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.	" hail.	squ.	" 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

NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	in.	denotes meteor.
cl.	" "	ms.	" "
ci.	" "	n.	" "
ci-cu.	" "	r.	" "
ci-s.	" "	h. r.	" "
cu.	" "	c. h. r.	" "
cu-s.	" "	s.	" "
d.	" "	sc.	" "
f.	" "	s.	" "
fr.	" "	s.	" "
h. fr.	" "	s.	" "
h.	" "	so. ha.	" "
h. d.	" "	sq.	" "
hl.	" "	sq.	" "
l.	" "	sq.	" "
li. cl.	" "	t.	" "
li. sh.	" "	t. s.	" "
lu. co.	" "	w.	" "
lu. ha.	" "	g.	" "

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 †† = 29.967
for Temp. (Col. 2), = 29.951
"Corrected Mean" of Barometer at 9 P.M., minus the Correction †† = 29.951
for Temp. (Col. 4), = 29.951
Mean at Station, corrected, and at 32°, = 6.59
Correction for height, feet above Mean Sea-level, = 29.960
Mean, reduced to 32°, and Sea-level, = 29.960
Highest Reading, corrected for Index error, on the 21 th, = 30.486
Lowest Do. Do., on the 29 th, = 29.344
Difference, or Monthly Range, = 1.142

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 19 th, = 67.4
Lowest in Month, corrected for Index errors, on the 15 th, = 32.2
Difference, or Monthly Range, = 35.2
"Corrected Mean" of all the Highest, (Col. 5), = 53.7
"Corrected Mean" of all the Lowest, (Col. 6), = 42.5
Difference, or Mean Daily Range, = 13.2
** Calculated Mean Temperature of Month, = 49.1
S.R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 7 th, = 107.8
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 87.4
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), = 47.8
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 45.3
†† Computed Temperature of Dew-Point, = 42.5
†† Do. Elastic Force of Vapour, = 2.72
†† Do. Weight of Vapour in a Cubic Foot of Air, = —
†† Relative Humidity (Saturation = 100), = 82
RAIN fell on 13 Days; Amount in Inches, = 1.59

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.
A.M.		3	1	1	3	1	5	10	5	2
P.M.										
Mean.		2	1	2	2	1	4	11	4	4

Barometric obs from 9 P.M. to 9 A.M. 17 in interpolated from Leith in observers absence.
Min on grass, amount of cloud, and earth temperature, not recorded during this interval.

Observations made and
Return verified by

(Signed) A. C. Morrison

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Blacket Pl. Edinburgh, County of Edinburgh, in Lat. 55° 57' N, Long 3° 12' W, Distance from Sea 2 miles.Height of Cistern of the Barometer above Mean Sea-Level 276 feet, above Ground 20 feet.During the MONTH of November 1899.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS.				HYGROMETER.				Rain.	WIND.				CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.		GENERAL REMARKS.	Days of Month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		At 32° Mean Sea-level.				Read Daily, at 9 P.M.				Dry No. Wet No.					9 h. A.M. 9 h. P.M.				9 A.M. P.M.				9 h. A.M.				0-10.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Barometer.		Attached Thermometer.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		Max. in Min. on Sun's rays Grass.		Dry bulb. Wet bulb.			Dry bulb. Wet bulb.		No. of hours in which it fell. No.		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 Well at depth of 18 in. No.			Temperature at surface, and Depth.		9 A.M. 9 P.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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BAROMETER, "corrected Mean" at 9 A.M., minus the Correction \ddagger = 29.948
for Temp. (Col. 2), = 29.948
"Corrected Mean" of Barometer at 9 P.M., minus the Correction \ddagger = 29.933
for Temp. (Col. 4), = 29.933
Mean at Station, corrected, and at 32°, = 29.641
Correction for height, feet above Mean Sea-level, = 303
Mean, reduced to 32°, and Sea-level, = 29.944
Highest Reading, corrected for Index error, on the 17th, = 30.712
Lowest Do. Do., on the 8th, = 28.948
Difference, or Monthly Range, = 1.766

S-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 2th, = 59.3
Lowest in Month, corrected for Index errors, on the 18th, = 33.5
Difference, or Monthly Range, = 25.8
"Corrected Mean" of all the Highest, (Col. 5), = 52.0
"Corrected Mean" of all the Lowest, (Col. 6), = 42.8
Difference, or Mean Daily Range, = 9.2
* Calculated Mean Temperature of Month, = 47.4
S-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 2th, = 104.0
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 73.5
Lowest at Night, Black Bulb (corrected for Index errors), on the 18th, = 28.9
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 40.2
Difference of above means or range ("exposed"), = 33.3

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 47.4
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 44.8
†† Computed Temperature of Dew-Point, = 42.0
†† Do. Elastic Force of Vapour, = 26.7
†† Do. Weight of Vapour in a Cubic Foot of Air, = —
†† Relative Humidity (Saturation = 100), = 83
RAIN fell on 16 Days; Amount in Inches, = 3.26

WIND.		SUMMARY.				
Direction.	N	NE	E	SE	S	SW
A.M.	—	1	1	—	3	7
P.M.	1	1	—	—	7	18
Mean.	1	1	1	—	1	7

* Each instrument tested at the Office in Edinburgh bears the stamp "S.M.S.," and a number to be entered in the Reading; or the Number and Initials of the Maker may be here given.
† Embracing corrections for both capillarity and Index Errors.
†† The Diurnal Range for Scotland is as yet unknown.
†† Practically, though not absolutely a mean correction.
†† These "Hygrometrical Deductions" are calculated from Glaisher's Hygrometrical Tables, Second Edition only.
* While the Diurnal Range is unknown, the Arithmetic Mean of Cols. 9 and 6 will be entered as the "Calculated Mean Temperature."
Any observations not taken under the Conditions specified in the Directions on the other side, or noted at the Top of each column, must be marked as such by the observer, in each Schedule. See over.

Observations made and
Return verified by

(Signed) R. C. Moseman
Obs.

Observations taken at Blackies Pt Edinburgh County of Edinburgh, in Lat 55° 07' N, Long 3° 12' W, Distance from Sea 2 miles.
 of Cistern of the Barometer above Mean Sea-Level 276 feet, above Ground 20 feet. During the MONTH of December
 The Hours of Observation are of Greenwich Time.

BAROMETER, "corrected Mean" at 9 A.M., <i>minus</i> the Correction $\uparrow\uparrow$	=	29.837
for Temp. (Col. 2), =		
"Corrected Mean" of Barometer at 9 P.M., <i>minus</i> the Correction $\uparrow\uparrow$	=	29.828
for Temp. (Col. 4), =		
Mean at Station, corrected, and at 32",	=	29.822
Correction for height, feet above Mean Sea-level,.....	=	310
Mean, reduced to 32", and Sea-level,	=	29.832
Highest Reading, corrected for Index error, on the 2 th ,.....	=	30.469
Lowest Do. Do., on the 19 th ,.....	=	28.456
Difference, or Monthly Range,	=	2.013

* Each instrument tested at the Office in Edinburgh bears the stamp, "S.M.S."; and a number to be entered in the Heading; or the Number and initials of the Maker may be here given.

+ Entrenching corrections for both capillarity and Index Errors.

1 The Diurnal Range for Scotland is as yet unknown.

2 Practically, though not absolutely a minus correction.

3 These "Hygrometrical Deductions" are calculated from Glaisher's Hygrometrical Tables, Second Edition only.

4 While the Diurnal Range is unknown, the Arithmetical Mean of the 1st and 6 will be entered as the "Calculated Mean Temperature."

5 Any observations not taken under the Conditions specified in the Directions on the other side, or noted at the Top of each column, must be marked as such by the observer, in each-Schedule. See over.

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the <u>4</u> th,	=	<u>53.3</u>
Lowest in Month, corrected for Index errors, on the <u>15</u> th,	=	<u>18.3</u>
Difference, or Monthly Range,	=	<u>35.0</u>
"Corrected Mean " of all the Highest, (Col. 5),	=	<u>40.1</u>
"Corrected Mean " of all the Lowest, (Col. 6),	=	<u>31.7</u>
Difference, or Mean Daily Range,	=	<u>8.4</u>
** Calculated Mean Temperature of Month,	=	<u>35.9</u>
 S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the <u>6</u> th,	=	<u>69.3</u>
"Corrected Mean. " (Col. 7), of Black Bulb, Max. in Sun,	=	<u>47.4</u>
Lowest at Night, Black Bulb (corrected for Index errors), on the <u>21</u> th,	=	<u>10.0</u>
"Corrected Mean. " (Col. 8), of Black Bulb, Min. on grass, <u>21/6</u>	=	<u>28.4</u>
Difference of above means or range ("exposed"),	=	<u>19.0</u>

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11),	=	35.7
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12),	=	34.2
†† Computed Temperature of Dew-Point,	=	31.9
†† Do. Elastic Force of Vapour,	=	1.82
†† Do. Weight of Vapour in a Cubic Foot of Air,	=	
†† Relative Humidity (Saturation = 100),	=	86
RAIN fell on 16 Days; Amount in Inches,	=	2.13

WIND.		SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calu or Variable.	Mean Force.	Mean Velocity in miles per day
A.M.	0	0	3	3	7	0	8	4	4	73	
P.M.	1	0	4	4	2	0	7	1	12	61	
Mean.	1	0	4	4	4	0	7	3	8	67	

Observations made and
Return verified by

(Signed) Robert A. G. Mossman.

