

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Caplinton, County of Edinburgh, in Lat 55° 56' 25", Long 3° 21' 59", Distance from Sea 1 7/10 miles.Height of Cistern of the Barometer above Mean Sea-level 128 feet, above Ground 1.5 feet.During the MONTH of January 1879.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.		SELF-REGISTERING THERMOMETERS. Read Daily, at 3 P.M.				HYGROMETER. No. —				WIND.				RAIN.		CLOUDS.				SUNSHINE. Hours.	THERMOMETERS under Ground.			SEA. Temperature at 1 fathom, and Density.	OZONE. 0—10.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc. Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.				
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Balls.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.			9 h. A.M.										
		Barometer. No. —	Attached Thermometer No. —	Barometer. No. —	Attached Thermometer No. —	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. —	No. of hours in which it fell.	Amount in inches. No. —	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.	
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°		°	°	°					°	°	°	°
	1	29.62	49			49.1	50			20	33	32		W	1							00	00							Hard Frost	1		
	2	28.2	44			56	19.1			8.5	25	26		W	1							00	00							Hard black frost large & heavy	2		
	3	50.1	49			58.7	30.3			10	25	22		W	1							04	00	00						S. Frost shown of snow & rain	3		
	4	62.4	48			56.5	18.5			7	34	32		W	1							24	8	bu						Frost	4		
	5	94.4	46			58.2	26.8			16	30.2	28		W	5							50	00							Five clear frosty mornings	5		
	6	101.4	46			58.8	16.5			8.8	19	17		W	5							14	6	li						Good Frost	6		
	7	29.61	45			54	25			12.5	35.4	32		S	1							2.5	6	bu						Very cold frosty morn	7		
	8	78.4	48			55	27.5			18	29	28		SE	5							2.5	6	bu						So	8		
	9	100.80	46			57	24			10.4	35.2	32		SE	2.5							3.1	2.5	9	bu					Good frost dry wind	9		
	10	29.75	47			56.5	25			15	30	29		S	1.5							3.7	2.8	9	bu					Snow through night	10		
	11	62.1	45			55.5	17.8			16	35	27		SE	5							0.4	1	bu	white					1 inch S. Frost & rain	11		
	12	90.5	45			55.5	15.8			11.2	32.5	27		W	3							12	5.9	1	bu	9.0	0.7			Hard Frost: Frost after rain max to 6 P.M. 25°	12		
	13	68.4	46			40.5	25.5			22	40.8	39		W	3							0.3	0	0						Mild & Fresh	13		
	14	55.5	48			46.6	34.5			26.2	42.8	40.5		SE	2.5							0.6	1	bu						4th morn	14		
	15	39.0	50	760	62	48.4	32.1			26	34.8	35		W	2									4	li					Frosty fine day	15		
	16	85.5	47			42	25.1			14.1	30	29		W	1									0	0						Solar Halo	16	
	17	101.04	49			58.2	12			8	20	19		S	5							0.7	0	0						Frost	17		
	18	20.862	50			58.9	17			8	35	35		S	1.2							0.6	2.8	10	li					Rain & sleet all day	18		
	19	10.510	47			58.9	17.1			25.5	35	32.2		SE	1.2								2.5	9	bu						Five morn light frost	19	
	20	15.4	46			58.5	11			9	12	11.5		SE	5								0	0								20	
	21	05.4	48			55.5	16			9	35	32		SE	2							0.4		1	bu						21		
	22																															22	
	23	15.0	48			56.2	35.8			16.4	27	25		SE	5							0.2		1	li						Good Frost all day	23	
	24	11.0	46			52	16.3			8.6	19	18		SE	5									5.4	9	li					Frost	24	
	25	16.2	47			50	18.5			12.8	25	22.5		W	1									5.4	9	li					Good Frost	25	
	26	14.3	47			55	18			8.4	20	18.2		W	1										5.4	9	li				So	26	
	27	52.0	45			55	18			9.8	31	29.5		W	1.3									2.6	10	bu					So	27	
	28	51.0	47			50.5	22.5			12.5	32.2	32		S	1							0.4	1	li	bu					Good. Rain at 4 P.M.	28		
	29	55.4	48			45.5	27.5			18.5	35.5	32.2		S	2									2.8	10	li					Unpleasant like	29	
	30	40.0	48			55	30.2			25.5	36.5	35		S	1.5										10						Between Frost & Rain	30	
	31	28.5	45.5			55	20			25.5	32	30		S	2									5.4	10	li						Very hard Frost at night	31
	Sums.	899.962	146.1			112.5	60.8			429.2	881.4	808.2											1.07										
	Means.	28.998	46.8			36.3	32.2			14.3	29.4	25.9			1.1																		
	† Total Corrections for Instrumental Errors.	0.008																															
	† Corrections for Diurnal Range.																																
	"Corrected Means."	29.006	46.8																														
	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†† = 29.940
for Temp. (Col. 2), = 0.008
"Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 29.940
for Temp. (Col. 4), = 0.008
Mean at Station, corrected, and at 32°, = 29.940
Correction for height, 128 feet above Mean Sea-level, = 0.146
Mean, reduced to 32°, and Sea-level, = 29.794
Highest Reading, corrected for Index error, on the 30th, = 29.582
Lowest Do. Do., on the 15th, = 1.012
Difference, or Monthly Range, = 1.012

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 7th, = 49.1
Lowest in Month, corrected for Index errors, on the 11th, = 11.0
Difference, or Monthly Range, = 38.1
"Corrected Mean" of all the Highest, (Col. 5), = 37.5
"Corrected Mean" of all the Lowest, (Col. 6), = 22.2
Difference, or Mean Daily Range, = 15.3
** Calculated Mean Temperature of Month, = 29.8
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, = 7
Lowest at Night, Black Bulb, (corrected for Index errors), on the th, = 14.5
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 14.5
Difference of above Means or Range ("exposed"), = 14.5

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 29.4
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 25.9
†† Computed Temperature of Dew-Point, = 22.7
†† Do. Elastic Force of Vapour, = 1.21
†† Do. Weight of Vapour in a Cubic Foot of Air, = 1.4
†† Relative Humidity, (Saturation = 100), = 34
RAIN fell on 12 Days; Amount in Inches, = 1.0

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

Observations made and
Return verified by

(Signed)

John Fortune

