

# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Leith, County of Edinburgh, in Lat. 55° 59' N, Long. 3° 10' W, Distance from Sea half mile.  
 Height of Cistern of the Barometer above Mean Sea-Level 50 feet, above Ground 5 feet. During the MONTH of January 1895.  
 The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS.				HYGROMETER.				Rain.	WIND.				CLOUDS.				SUNSHINE.	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 h. A.M.		9 h. P.M.			9 h. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.		No.	Barometer.	No.	Barometer.	No.	Barometer.	No.	Barometer.		No.	Barometer.	No.					Barometer.	No.	Barometer.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		* No.	Barometer.	* No.	Barometer.	* No.	Barometer.	* No.	Barometer.	* No.	Barometer.	* No.	Barometer.		* No.	Barometer.	* No.	Barometer.	* No.	Barometer.	* No.	Barometer.		* No.	Barometer.	* No.					Barometer.	* No.	Barometer.	* No.	Barometer.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		inches.		inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2), = 29.742  
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 29.769  
 Mean at Station, corrected, and at 32°, = 29.670  
 Correction for height, feet above Mean Sea-level, = 50  
 Mean, reduced to 32°, and Sea-level, = 29.755  
 Highest Reading, corrected for Index error, on the 30 th., = 30.784  
 Lowest Do. Do., at 10 am, on the 24 th., = 28.975  
 Difference, or Monthly Range, = 1.809

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 24 th., = 41.7  
 Lowest in Month, corrected for Index errors, on the 11 th., = 20.0  
 Difference, or Monthly Range, = 21.7  
 "Corrected Mean" of all the Highest, (Col. 5), = 36.4  
 "Corrected Mean" of all the Lowest, (Col. 6), = 29.1  
 Difference, or Mean Daily Range, = 7.3  
 \*\* Calculated Mean Temperature of Month, = 32.8  
 S.R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th., =         
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, =         
 Lowest at Night, Black Bulb (corrected for Index errors), on the th., =         
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, =         
 Difference of above means or range ("exposed"), =       

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 32.6  
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 31.2  
 Computed Temperature of Dew-Point, = 28.3  
 Do. Elastic Force of Vapour, = 1.55  
 Do. Weight of Vapour in a Cubic Foot of Air, =         
 Relative Humidity (Saturation = 100), = 84  
 RAIN fell on 18 Days; Amount in Inches, = 1.82

WIND.		SUMMARY.									
Direction.		N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
A.M.		4	1	6	3			12	5		1.48
P.M.		6	4	5	1			14	1		1.47
Mean.		5	1	5	1	1	0	13	2	0	1.48

2.19

(Signed) James Boland & George Redpath

Observations made and Return verified by {







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Leith, County of Edinburgh, in Lat. 55° 59' N, Long. 2° 10' W, Distance from Sea half mile.Height of Cistern of the Barometer above Mean Sea-level 50 feet, above Ground 5 feet.During the MONTH of February 1895.

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.			
		corrected to 32° sea-level.				Read Daily, at 9 P.M.				Dry No. Wet No.				No. of hours in which it fell.		9 h. A.M. 9 h. P.M.				9 A.M. P.M.				9 h. A.M.									
		9 h. A.M.		9 h. P.M.		Max. in Shade, at least above Ground.		Exposed Black Bulbs.		Dry bulb.		Wet bulb.		Dry bulb.		Wet bulb.		Direction.		Force.		Velocity (0-6), and Direction.		Amount (0-10), and Species.		No. 3 inches. No. 12 inches. No. 22 inches.							
		No.	Barometer.	Attach- ed Ther- mometer	inches.	No.	Barometer.	Attach- ed Ther- mometer	inches.	No.	Max.	Min.	No.	Max. in Sun/rays	Min. on Grass.	No.	Dry bulb.	Wet bulb.	No.	Dry bulb.	Wet bulb.	No.	Direction.	Force.	No.	Direction.					Force.	No.	9 h. A.M.
1		30.292		30.291		36.0	32.0					35.9	33.8	33.9	33.2	0.11	E	24	E	16	1.5			2.6	10	2.6	10			Cloudy; fog obs. of S. and S.W.	1		
2		30.066		30.164		36.4	33.9					35.7	35.2	35.9	35.0	0.24	E	20	E	15				2.6	10	2.6	10			Cloudy; obs. of S. and S.W. till 10 a.m.	2		
3		30.228		30.312		36.7	34.7					35.2	34.4	36.7	34.9	0.3	E	10	E	16	2.0			15.6	10	2.6	10			Cloudy; a fog light n. obs.	3		
4		30.304		30.392		38.0	31.7*					35.7	33.0	32.6	31.0	0.0	W	0.25	E	0.5				15.7	10	2.6	10			Cloudy; fog obs. of S. and S.W.	4		
5		30.198		29.986		34.8	30.7*					33.6	30.6	30.7	30.0	0.2	W	2.0	E	0.5				2.4	10	2.6	10			Cloudy; fog obs. of S. and S.W.	5		
6		29.703		29.816		31.0	20.7*					26.3	25.7	25.4	23.0	0.2	W	2.0	E	0.5				1.1	10	2.6	10			Cloudy; fog obs. of S. and S.W.	6		
7		29.855		29.957		24.8	18.0*					20.8	19.3	18.9	18.3	0.0	W	0.25	E	0.5				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	7		
8		30.020		30.071		25.8	16.8					19.1	17.2	22.6	22.0	0.0	W	0.25	E	0.5				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	8		
9		30.105		30.044		25.7	17.3					19.9	19.0	20.8	28.4	0.0	W	1.0	E	0.5				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	9		
10		29.955		29.872		27.9	14.7					16.1	16.2	20.1	21.6	0.0	W	0.25	E	0.5				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	10		
11		29.823		29.854		22.6	16.9					21.8	21.8	26.8	25.0	0.0	W	1.5	E	0.5				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	11		
12		29.942		30.067		23.7	23.4					26.9	25.0	24.7	24.2	0.0	W	1.4	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	12		
13		30.125		30.193		33.6	19.0					26.8	23.3	23.5	23.0	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	13		
14		30.238		30.431		27.4	22.9					27.0	28.0	25.7	25.0	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	14		
15		30.518		30.600		35.6	25.0					31.0	29.0	29.8	28.4	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	15		
16		30.664		30.692		38.7	26.5					35.7	34.2	33.9	33.1	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	16		
17		30.603		30.528		36.9	32.2					33.7	32.8	34.2	33.1	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	17		
18		30.410		30.364		35.0	27.8*					29.7	28.2	27.8	27.0	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	18		
19		30.381		30.392		33.6	22.0					28.5	27.5	25.5	25.0	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	19		
20		30.414		30.402		37.7	20.5					24.0	23.4	27.7	23.9	0.0	W	1.4	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	20		
21		30.378		30.378		43.6	34.5					36.9	34.7	34.9	32.0	0.0	W	1.0	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	21		
22		30.573		30.378		43.0	31.6					36.6	33.9	40.4	35.0	0.0	W	1.4	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	22		
23		30.236		30.080		46.7	37.4					40.0	38.2	40.7	38.9	0.0	W	1.0	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	23		
24		29.793		30.007		34.6	34.9*					35.9	35.3	35.5	33.1	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	24		
25		30.086		30.078		39.5	31.9					34.7	33.3	33.7	31.6	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	25		
26		29.689		29.799		45.2	31.9					41.1	39.5	36.1	32.9	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	26		
27		29.856		29.895		39.9	34.1					35.7	32.0	35.5	31.9	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	27		
28		29.802		29.518		46.0	33.9					40.9	39.0	43.2	41.0	0.0	W	0.25	E	0.25				0.0	0	0	0			Cloudy; fog obs. of S. and S.W.	28		
29																																Cloudy; fog obs. of S. and S.W.	29
30																																Cloudy; fog obs. of S. and S.W.	30
31																																Cloudy; fog obs. of S. and S.W.	31
Sums.		1312	1215	1614	1114			858	754	798	652	544	0.49	350	215		134	119													NOTATION USED IN GENERAL REMARKS.		
Means.								30.7	29.1	30.9	29.1			1.25	0.7		4.8	4.3															
† Total Corrections for Instrumental Errors.																																	
† Corrections for Diurnal Range.																																	
"Corrected Means."		30.149	30.163	36.2	27.0			30.7	29.1	30.9	29.1	0.49																					
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., 30.149  
Corrected Mean" of Barometer at 9 P.M., 30.163  
Mean at Station, corrected, and at 32°, (30.076)  
Correction for height, feet above Mean Sea-level, =  
Mean, reduced to 32°, and Sea-level, 30.156  
Highest Reading, corrected for Index error, on the 16 th, at 8 p.m. 30.702  
Lowest Do. Do., on the 28 th, at 10 p.m. 29.508  
Difference, or Monthly Range, 1.194

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 28 th, 46.7  
Lowest in Month, corrected for Index errors, on the 10 th, 14.7  
Difference, or Monthly Range, 32.0  
"Corrected Mean" of all the Highest, (Col. 5), 36.2  
"Corrected Mean" of all the Lowest, (Col. 6), 27.0  
Difference, or Mean Daily Range, 9.2  
\*\* Calculated Mean Temperature of Month, 31.6

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

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), 30.8  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), 29.2  
† Computed Temperature of Dew-Point, 3.248  
† Do. Elastic Force of Vapour, 134  
† Do. Weight of Vapour in a Cubic Foot of Air, =  
† Relative Humidity, (Saturation = 100), 76  
RAIN fell on 6 Days; Amount in Inches, 0.49

WIND.		SUMMARY.									
Direction.		N	NE	E	SE	S	SW	W	NW	Mean Force.	Mean Velocity in miles per day.
A.M.		4	3	1	2	1		14		1.25	
P.M.		1	8	3		1	8	7		1.77	
Mean.		2	2.6	2	1	1	11	0	3	1.01	

= 1.02

Observations made and  
Return verified by(Signed) James Colman & George Redpath







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Lith, County of Edinburgh, in Lat. 55° 59' N, Long. 3° 10' W, Distance from Sea half mile.  
Height of Cistern of the Barometer above Mean Sea-Level 50 feet, above Ground 5 feet. During the MONTH of March 189 5.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS.				HYGROMETER.				Rain.	WIND.				CLOUDS.				SUNSHINE.	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 h. A.M.		9 h. P.M.			9 h. A.M.				0-10.								
		No.	Barometer.	No.	Barometer.	No.	Max.	Min.	No.	Max.	Min.	No.	Max.		Min.	No.	Max.	Min.	No.	Max.	Min.	No.		Max.	Min.	No.		Max.	Min.	No.	Max.		Min.	No.	Max.	Min.
		* No.	Barometer.	* No.	Barometer.	* No.	Max.	Min.	* No.	Max.	Min.	* No.	Max.		Min.	* No.	Max.	Min.	* No.	Max.	Min.	* No.		Max.	Min.	No.		Max.	Min.	No.	Max.		Min.	No.	Max.	Min.
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°				
	1	29.488		29.709		45.5	35.1							39.8	37.8	35.1	31.9		0.05	W	2.5	W	1.5									1				
	2	29.771		29.690		36.7	30.9							33.7	31.9	30.9	27.9		0.0	W	1.4	W	0.5									2				
	3	29.683		29.628		34.8	28.6							30.9	26.9	33.7	31.9		0.0	W	2.0	W	2.3									3				
	4	29.976		29.987		40.8	32.9							36.7	32.5	35.9	32.1		0.0	W	1.5	W	2.0									4				
	5	29.869		29.758		44.4	32.9							37.4	35.5	39.7	38.0		0.5	W	2.0	W	1.0									5				
	6	29.607		29.551		44.7	37.1							40.7	39.0	42.2	40.9		0.5	W	1.5	W	0.5									6				
	7	29.702		29.652		45.7	37.9							38.5	37.3	40.2	38.0		0.7	E	0.5	W	1.0									7				
	8	29.608		29.534		42.8	33.8							38.0	35.1	38.9	37.1		0.1	SE	2.0	SE	1.5									8				
	9	29.549		29.512		44.5	37.0							40.7	39.7	37.7	37.2		0.9	SE	1.0	E	2.0									9				
	10	29.385		29.409		37.9	36.0							37.7	36.8	36.0	35.9		1.2	W	2.4	W	2.0									10				
	11	29.468		29.612		36.8	35.4							36.4	35.5	35.8	35.0		2.5	W	2.0	W	1.0									11				
	12	29.761		29.911		37.9	32.9							35.0	33.2	36.7	36.0		0.2	E	1.5	E	0.5									12				
	13	30.014		30.063		43.3	35.1							35.8	34.9	37.9	35.8		0.0	W	1.4	E	0.5									13				
	14	30.093		30.074		50.7	37.8							46.0	45.1	49.6	45.1		0.0	W	2.0	W	2.0									14				
	15	30.160		30.182		52.5	46.5							47.6	45.3	49.8	46.5		0.0	S	1.4	W	2.0									15				
	16	30.219		30.237		54.9	46.0							48.6	45.1	47.6	44.0		0.0	W	1.3	W	1.0									16				
	17	30.192		30.246		54.6	40.1							46.8	44.3	44.7	40.7		0.0	W	2.1	W	1.0									17				
	18	30.128		29.857		49.8	33.9							38.7	37.9	43.8	41.2		0.5	W	1.5	W	2.0									18				
	19	29.821		29.608		50.3	40.1							44.3	41.2	47.6	45.0		0.3	W	2.0	W	2.0									19				
	20	29.803		29.911		47.6	40.9							44.5	41.8	40.9	40.2		0.6	Var.	0.5	W	0.5									20				
	21	29.716		29.717		55.7	39.4							50.0	48.2	47.6	44.3		1.0	W	2.5	W	2.3									21				
	22	29.825		29.886		53.1	44.1							46.7	43.2	49.6	46.9		0.7	W	2.4	W	0.5									22				
	23	29.592		29.173		52.7	46.0							48.3	45.6	49.4	46.0		0.2	W	3.0	W	2.3									23				
	24	28.895		29.025		53.7	39.1							48.8	45.2	39.8	37.9		0.5	W	2.5	W	2.3									24				
	25	28.924		28.819		45.7	37.5							43.1	40.2	40.4	38.4		0.4	W	1.0	W	1.5									25				
	26	29.058		29.316		48.6	34.3							40.2	38.5	38.7	36.4		0.0	W	2.0	W	1.5									26				
	27	29.184		28.985		41.9	34.7							39.1	38.0	39.5	37.0		0.4	E	0.5	E	2.0									27				
	28	28.623		28.811		39.5	36.9							38.2	37.8	38.1	37.2		0.3	E	2.4	W	2.5									28				
	29	28.995		29.186		41.7	37.4							40.7	38.7	39.7	38.9		0.1	W	2.4	W	1.5									29				
	30	29.398		29.547		42.7	37.0							40.5	38.7	40.7	38.8		0.2	W	3.0	W	0.5									30				
	31	29.529		29.591		44.7	38.3							39.5	38.0	38.8	38.1		0.8	W	0.5	E	1.5									31				
Sums.		1716.5		1713.4		1310	1613							1272.9	1207.0	1267.0	1203.2		2.31		55.5		45.8													
Means.		29.616		29.618		45.4	37.2							41.1	39.0	40.9	38.8		1.79		1.48		6.6		5.8											
+ Total Corrections for Instrumental Errors.																																				
+ Corrections for Diurnal Range.																																				
"Corrected Means."		29.616		29.618		45.7	37.2							41.1	39.0	40.9	38.8		2.31																	
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  $\ddagger$  = 29.616  
for Temp. (Col. 2) = 29.618  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction  $\ddagger$  = 29.618  
for Temp. (Col. 4) = 29.618  
Mean at Station, corrected, and at 32°, ..... = 29.617  
Correction for height, feet above Mean Sea-level, ..... = 29.617  
Mean, reduced to 32°, and Sea-level, ..... = 29.617  
Highest Reading, corrected for Index error, on the 16 th, ..... = 30.237  
Lowest Do. Do. at 11 a.m. on the 28 th, ..... = 28.653  
Difference, or Monthly Range, ..... = 1.584

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 21st, ..... = 55.7  
Lowest in Month, corrected for Index errors, on the 3rd, ..... = 28.6  
Difference, or Monthly Range, ..... = 27.1  
"Corrected Mean" of all the Highest, (Col. 5), ..... = 45.7  
"Corrected Mean" of all the Lowest, (Col. 6), ..... = 37.2  
Difference, or Mean Daily Range, ..... = 8.2  
\*\* Calculated Mean Temperature of Month, ..... = 41.3  
S.R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, ..... =  
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, ..... =  
Lowest at Night, Black Bulb (corrected for Index errors), on the th, ..... =  
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, ..... =  
Difference of above means or range ("exposed"), ..... =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), ..... = 41.0  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), ..... = 38.9  
† Computed Temperature of Dew-Point, ..... = 36.3  
† Do. Elastic Force of Vapour, ..... = 0.213  
† Do. Weight of Vapour in a Cubic Foot of Air, ..... =  
† Relative Humidity (Saturation = 100), ..... = 83  
RAIN fell on 22 Days; Amount in Inches, ..... = 2.31

WIND.		SUMMARY.					
Direction.	N	NE	E	SE	S	SW	W
A.M.	3	2	4	1	2	1	15
P.M.	4	2	4		3	1	15
Mean.	3	2	4	1	3	1	15

Observations made and  
Return verified by

(Signed)

Jamies Polam & George Redpath







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Leith, County of Edinburgh, in Lat. 55° 59' N, Long. 2° 10' W, Distance from Sea half mile.  
Height of Cistern of the Barometer above Mean Sea-Level 50 feet, above Ground 5 feet. During the MONTH of April 1895.

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° + sea-level.		Read Daily, at 9 P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		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 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.	No.	Direction.	Force.	Direction.	Force.	Velocity (0-10), and Direction.	Amount (0-10), and Species.	Velocity (0-10), and Direction.	Amount (0-10), and Species.	No.	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.	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	29.796		30.082		41.7	38.1			40.9	40.1	40.1	40.0		0.09	E	24	E	16	2.0	1.5	15	9	10													
	2	30.128		30.010		45.7	38.9			40.9	39.3	41.7	37.0		0.1	NE	15	W	15		1.5	15	9	10													
	3	29.908		30.064		48.5	34.7*			45.7	42.4	34.7	30.1		0.09	WNW	10	NE	2.0		1.5	15	9	10													
	4	30.164		30.202		44.7	31.5			35.7	30.8	38.0	36.2		0.0	N	15	SW	0.25		1.5	15	9	10													
	5	30.022		29.650		47.7	34.2			40.4	36.0	45.7	42.2		0.0	WNW	15	SW	1.5	2.5	1.5	15	9	10													
	6	29.034		29.177		52.7	40.3*			50.8	47.7	40.5	36.9		0.8	NE	34	N	2.1	2.5	1.5	15	9	10													
	7	29.414		29.600		47.9	32.6			38.8	33.4	40.3	34.9		0.0	W	15	W	0.5		1.5	15	9	10													
	8	29.664		29.340		51.7	32.8			38.5	35.6	51.7	47.8		0.0	SSW	4.0	SSW	2.5	3.5	1.5	15	9	10													
	9	29.561		29.701		56.7	46.0			50.6	45.0	49.6	46.0		0.3	W	5	SE	6.5		1.5	15	9	10													
	10	29.568		29.893		58.1	46.1*			53.6	48.0	46.6	42.0		0.1	WNW	34	W	2.5	3.5	1.5	15	9	10													
	11	30.123		30.351		54.7	42.9			49.1	44.0	43.7	41.5		0.09	W	2.0	N	0.5		1.5	15	9	10													
	12	30.344		30.216		52.7	37.9			45.5	41.1	45.8	44.0		0.0	WNW	2.0	W	0.5		1.5	15	9	10													
	13	30.334		30.394		45.8	39.2*			43.0	42.0	39.6	37.8		0.0	NE	2.0	NE	0.5		1.5	15	9	10													
	14	30.408		30.348		45.7	31.1			44.1	39.9	40.9	40.0		0.0	E	0.5	NE	0.5		1.5	15	9	10													
	15	30.335		30.242		45.9	35.9			40.7	39.0	37.8	37.2		0.0	E	1.3	NE	1.0		1.5	15	9	10													
	16	30.119		29.993		45.7	37.1			40.7	39.4	44.7	40.0		0.0	E	16	E	1.3	1.7	1.5	15	9	10													
	17	29.845		29.473		43.6	38.1			39.7	38.2	40.5	40.0		0.0	E	2.0	E	1.0		1.5	15	9	10													
	18	29.665		29.609		48.8	39.6			40.9	40.7	41.3	41.0		0.0	E	16	SE	0.25		1.5	15	9	10													
	19	29.649		29.508		59.3	40.0			50.7	48.0	50.8	46.9		0.0	WNW	2.0	W	1.1	1.5	1.5	15	9	10													
	20	29.908		29.810		59.7	42.8			51.1	47.5	52.6	47.9		0.0	SSW	1.5	E	0.25		1.5	15	9	10													
	21	29.687		29.708		60.0	51.0			56.1	50.8	51.6	48.9		0.0	SSW	1.24	SE	1.5		1.5	15	9	10													
	22	29.738		29.502		60.7	46.1			57.6	51.7	53.6	50.4		0.0	S	1.5	SE	1.5	1.2	1.5	15	9	10													
	23	29.388		29.537		61.9	50.5*			57.4	51.9	50.5	46.3		0.3	SW	2.0	S	1.0		1.5	15	9	10													
	24	29.558		29.426		58.4	47.6			52.0	47.5	50.5	48.9		0.7	SSW	0.5	SE	0.5	1.1	1.5	1.5	15	9	10												
	25	29.528		29.459		55.0	45.5			50.6	46.9	46.8	45.0		0.1	W	0.5	NE	1.5		1.5	15	9	10													
	26	29.360		29.512		46.8	43.2*			45.8	45.2	43.7	43.1		4.4	W	0.5	E	1.1	1.5	1.5	1.5	15	9	10												
	27	29.704		29.934		46.7	43.0			45.7	45.1	45.8	44.9		1.4	NE	2.0	NE	1.0		1.5	15	9	10													
	28	30.054		30.066		53.7	44.6			49.8	47.1	45.7	45.0		0.0	S	1.4	W	0.25		1.5	15	9	10													
	29	30.062		29.983		59.4	44.5			48.6	45.2	50.6	47.0		0.0	SSW	1.0	SSW	1.24		1.5	15	9	10													
	30	30.123		30.001		56.2	45.1			51.5	45.2	49.9	45.9		0.3	WNW	2.0	SE	1.2		1.5	15	9	10													
	31																																				
Sums.		895.231		895.391		1553.121	127.9			1396.5	1244.7	1352.3	1277.8		110						202	228															
Means.		29.841		29.846		51.8	40.6			46.5	43.2	45.1	42.6		168						6.7	7.6															
+ Total Corrections for Instrumental Errors.																																					
+ Corrections for Diurnal Range.																																					
"Corrected Means."		29.841		29.846		51.8	40.6			46.5	43.2	45.1	42.6		110																						
No. of Column.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						

NOTATION USED IN GENERAL REMARKS.									
a.	denotes aurora.	m.	denotes meteor.						
ci.	" cirrus.	ms.	" meteors.						
ci.-cu.	" cirro-cumulus.	n.	" nimbus.						
cu.-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.	" squall.						
fr.	" frost.	s.	" sleet.						
h.-fr.	" hoar-frost.	s.	" snow.						
h.	" haze.	so. ha.	" 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	2.5	Very fresh	6	Violent gale

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2), = 29.841  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 29.846  
Mean at Station, corrected, and at 32°, = 29.844  
Correction for height, feet above Mean Sea-level, = 29.844  
Mean, reduced to 32°, and Sea-level, = 29.843  
Highest Reading, corrected for Index error, on the 14th, = 30.408  
Lowest Do. Do., at 1 P.M. on the 6th, = 29.034  
Difference, or Monthly Range, = 1.374

S-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 23rd, = 61.9  
Lowest in Month, corrected for Index errors, on the 14th, = 31.1  
Difference, or Monthly Range, = 30.8  
"Corrected Mean" of all the Highest, (Col. 5), = 51.8  
"Corrected Mean" of all the Lowest, (Col. 6), = 40.6  
Difference, or Mean Daily Range, = 11.2  
\*\* Calculated Mean Temperature of Month, = 46.2  
S-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 11th, = 61.9  
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 61.9  
Lowest at Night, Black Bulb (corrected for Index errors), on the 11th, = 31.1  
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 31.1  
Difference of above means or range ("exposed"), = 30.8

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 45.8  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 42.9  
Computed Temperature of Dew-Point, = 39.6  
Do. Elastic Force of Vapour, = 0.245  
Do. Weight of Vapour in a Cubic Foot of Air, = 80  
Relative Humidity (Saturation = 100), = 80  
RAIN fell on 13 Days; Amount in Inches, = 1.10

WIND.		SUMMARY.			
Direction.	N NE E SE S SW W NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.	
A.M.	1 3 6	2 1 1 1	1.68		
P.M.	2 5 5	10 2 6	1.19		
Mean.	2 4 5	0 8 2 8	1.44		

Observations made and  
Return verified by

(Signed) James Bolam & George Redpath.







# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Leith, County of Edinburgh, in Lat. 55° 59' N, Long. 3° 10' W, Distance from Sea half mile.

Height of Cistern of the Barometer above Mean Sea-Level 50 feet, above Ground 5 feet.

During the MONTH of May 1895.

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.		9 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.	Velocity (0-5) and Direction.	Amount (0-10) and Species.	Velocity (0-5) and Direction.	Amount (0-10) and Species.	No. 3 inches.					No. 12 inches.	No. 22 inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		No.		No.		No.	No.	No.	No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.					No.	No.	No.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		inches.		inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction  $\frac{1}{10}$  = 30.120  
 for Temp. (Col. 9) = 30.108  
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction  $\frac{1}{10}$  = 30.108  
 for Temp. (Col. 4) = 30.108  
 Mean at Station, corrected, and at 32°, = 30.114  
 Correction for height, feet above Mean Sea-level, -77 = 30.615  
 Mean, reduced to 32°, and Sea-level, = 30.615  
 Highest Reading, corrected for Index error, on the 3rd, = 30.615  
 Lowest Do. Do., at same place, on the 31st, = 29.667  
 Difference, or Monthly Range, = 0.948

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 29th, = 72.6  
 Lowest in Month, corrected for Index errors, on the 17th, = 39.5  
 Difference, or Monthly Range, = 33.1  
 "Corrected Mean" of all the Highest, (Col. 5), = 60.4  
 "Corrected Mean" of all the Lowest, (Col. 6), = 44.8  
 Difference, or Mean Daily Range, = 15.6  
 \*\* Calculated Mean Temperature of Month, = 52.6  
 S.R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 29th, = 72.6  
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 60.4  
 Lowest at Night, Black Bulb (corrected for Index errors), on the 17th, = 39.5  
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 44.8  
 Difference of above means or range ("exposed"), = 15.6

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 51.7  
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 48.1  
 † Computed Temperature of Dew-Point, = 44.5  
 † Do. Elastic Force of Vapour, = 0.293  
 † Do. Weight of Vapour in a Cubic Foot of Air, = 77  
 † Relative Humidity (Saturation = 100), = 77  
 RAIN fell on 16 Days; Amount in Inches, = 1.10

WIND.		SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.
A.M.	3		13	1	1		10	2	1	1.33	
P.M.	5	1	5	2	2	2	9	1	4	1.10	
Mean.	4	1	9	2	2	1	9	1	2	1.22	

1.49

Observations made and Return verified by {

(Signed) James Polaw & George Redpath.



# 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 uniformity in the system of observation pursued at all the Stations. Uniformity in the observations is absolutely necessary to justify the publication of Monthly Results from the Society's 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 a scrupulous attention to the following Directions, secure for their Monthly Returns an accuracy and value commensurate with the labour and pains involved in making them; and, for the Tables published by the Society, an entire comparableness among the several Returns, without which the Society's Reports must inevitably fail in achieving one of the main objects of Meteorological Observation.

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. 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 FORTIN'S Barometer; the arrangement consisting in applying pressure by means of a screw to the bottom of the cistern, which is made of flexible leather, thus raising or depressing the surface till it just meets the ivory 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 fluctuation of the surface of mercury in the cistern. This is an excellent Barometer for ordinary Observations, inasmuch as it is entirely immune from the observation likely to arise from a few cases in which the ivory point fails to touch the surface of the mercury. Barometers are made, it may be stated, that on a principle during a whole year, with the exception of the Barometer, which is given to the Society's Stations, when atmospheric pressure varies rising or falling, the compound with the result that none of the readings differ from those of the Standard more than 0.003 inch.

A modification of Fortin'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-hinge on this little piston-rod is brought, by the adjusting screw, to form one straight line with those on the ivory frame, the surface of the mercury is then at the exact height from which the scale is graduated. In taking an observation, this preliminary setting must be made with scrupulous accuracy; as a slight error here 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 is that which is least liable to sudden changes of temperature.

In taking an Observation, the Attached Thermometer is first noted: the tube must then be gently tapped, and the 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 as follows:—Errors of 0.001 inch, and 0.002 inch, that is to say, instead of 29.365 inches, 29.366 inches, or 29.367 inches, or 29.815 inches, or 29.816 inches, or 29.817 inches, or 29.818 inches, or 29.819 inches, or 29.820 inches, or 29.821 inches, or 29.822 inches, or 29.823 inches, or 29.824 inches, or 29.825 inches, or 29.826 inches, or 29.827 inches, or 29.828 inches, or 29.829 inches, or 29.830 inches, or 29.831 inches, or 29.832 inches, or 29.833 inches, or 29.834 inches, or 29.835 inches, or 29.836 inches, or 29.837 inches, or 29.838 inches, or 29.839 inches, or 29.840 inches, or 29.841 inches, or 29.842 inches, or 29.843 inches, or 29.844 inches, or 29.845 inches, or 29.846 inches, or 29.847 inches, or 29.848 inches, or 29.849 inches, or 29.850 inches, or 29.851 inches, or 29.852 inches, or 29.853 inches, or 29.854 inches, or 29.855 inches, or 29.856 inches, or 29.857 inches, or 29.858 inches, or 29.859 inches, or 29.860 inches, or 29.861 inches, or 29.862 inches, or 29.863 inches, or 29.864 inches, or 29.865 inches, or 29.866 inches, or 29.867 inches, or 29.868 inches, or 29.869 inches, or 29.870 inches, or 29.871 inches, or 29.872 inches, or 29.873 inches, or 29.874 inches, or 29.875 inches, or 29.876 inches, or 29.877 inches, or 29.878 inches, or 29.879 inches, or 29.880 inches, or 29.881 inches, or 29.882 inches, or 29.883 inches, or 29.884 inches, or 29.885 inches, or 29.886 inches, or 29.887 inches, or 29.888 inches, or 29.889 inches, or 29.890 inches, or 29.891 inches, or 29.892 inches, or 29.893 inches, or 29.894 inches, or 29.895 inches, or 29.896 inches, or 29.897 inches, or 29.898 inches, or 29.899 inches, or 29.900 inches, or 29.901 inches, or 29.902 inches, or 29.903 inches, or 29.904 inches, or 29.905 inches, or 29.906 inches, or 29.907 inches, or 29.908 inches, or 29.909 inches, or 29.910 inches, or 29.911 inches, or 29.912 inches, or 29.913 inches, or 29.914 inches, or 29.915 inches, or 29.916 inches, or 29.917 inches, or 29.918 inches, or 29.919 inches, or 29.920 inches, or 29.921 inches, or 29.922 inches, or 29.923 inches, or 29.924 inches, or 29.925 inches, or 29.926 inches, or 29.927 inches, or 29.928 inches, or 29.929 inches, or 29.930 inches, or 29.931 inches, or 29.932 inches, or 29.933 inches, or 29.934 inches, or 29.935 inches, or 29.936 inches, or 29.937 inches, or 29.938 inches, or 29.939 inches, or 29.940 inches, or 29.941 inches, or 29.942 inches, or 29.943 inches, or 29.944 inches, or 29.945 inches, or 29.946 inches, or 29.947 inches, or 29.948 inches, or 29.949 inches, or 29.950 inches, or 29.951 inches, or 29.952 inches, or 29.953 inches, or 29.954 inches, or 29.955 inches, or 29.956 inches, or 29.957 inches, or 29.958 inches, or 29.959 inches, or 29.960 inches, or 29.961 inches, or 29.962 inches, or 29.963 inches, or 29.964 inches, or 29.965 inches, or 29.966 inches, or 29.967 inches, or 29.968 inches, or 29.969 inches, or 29.970 inches, or 29.971 inches, or 29.972 inches, or 29.973 inches, or 29.974 inches, or 29.975 inches, or 29.976 inches, or 29.977 inches, or 29.978 inches, or 29.979 inches, or 29.980 inches, or 29.981 inches, or 29.982 inches, or 29.983 inches, or 29.984 inches, or 29.985 inches, or 29.986 inches, or 29.987 inches, or 29.988 inches, or 29.989 inches, or 29.990 inches, or 29.991 inches, or 29.992 inches, or 29.993 inches, or 29.994 inches, or 29.995 inches, or 29.996 inches, or 29.997 inches, or 29.998 inches, or 29.999 inches, or 30.000 inches, or 30.001 inches, or 30.002 inches, or 30.003 inches, or 30.004 inches, or 30.005 inches, or 30.006 inches, or 30.007 inches, or 30.008 inches, or 30.009 inches, or 30.010 inches, or 30.011 inches, or 30.012 inches, or 30.013 inches, or 30.014 inches, or 30.015 inches, or 30.016 inches, or 30.017 inches, or 30.018 inches, or 30.019 inches, or 30.020 inches, or 30.021 inches, or 30.022 inches, or 30.023 inches, or 30.024 inches, or 30.025 inches, or 30.026 inches, or 30.027 inches, or 30.028 inches, or 30.029 inches, or 30.030 inches, or 30.031 inches, or 30.032 inches, or 30.033 inches, or 30.034 inches, or 30.035 inches, or 30.036 inches, or 30.037 inches, or 30.038 inches, or 30.039 inches, or 30.040 inches, or 30.041 inches, or 30.042 inches, or 30.043 inches, or 30.044 inches, or 30.045 inches, or 30.046 inches, or 30.047 inches, or 30.048 inches, or 30.049 inches, or 30.050 inches, or 30.051 inches, or 30.052 inches, or 30.053 inches, or 30.054 inches, or 30.055 inches, or 30.056 inches, or 30.057 inches, or 30.058 inches, or 30.059 inches, or 30.060 inches, or 30.061 inches, or 30.062 inches, or 30.063 inches, or 30.064 inches, or 30.065 inches, or 30.066 inches, or 30.067 inches, or 30.068 inches, or 30.069 inches, or 30.070 inches, or 30.071 inches, or 30.072 inches, or 30.073 inches, or 30.074 inches, or 30.075 inches, or 30.076 inches, or 30.077 inches, or 30.078 inches, or 30.079 inches, or 30.080 inches, or 30.081 inches, or 30.082 inches, or 30.083 inches, or 30.084 inches, or 30.085 inches, or 30.086 inches, or 30.087 inches, or 30.088 inches, or 30.089 inches, or 30.090 inches, or 30.091 inches, or 30.092 inches, or 30.093 inches, or 30.094 inches, or 30.095 inches, or 30.096 inches, or 30.097 inches, or 30.098 inches, or 30.099 inches, or 30.100 inches, or 30.101 inches, or 30.102 inches, or 30.103 inches, or 30.104 inches, or 30.105 inches, or 30.106 inches, or 30.107 inches, or 30.108 inches, or 30.109 inches, or 30.110 inches, or 30.111 inches, or 30.112 inches, or 30.113 inches, or 30.114 inches, or 30.115 inches, or 30.116 inches, or 30.117 inches, or 30.118 inches, or 30.119 inches, or 30.120 inches, or 30.121 inches, or 30.122 inches, or 30.123 inches, or 30.124 inches, or 30.125 inches, or 30.126 inches, or 30.127 inches, or 30.128 inches, or 30.129 inches, or 30.130 inches, or 30.131 inches, or 30.132 inches, or 30.133 inches, or 30.134 inches, or 30.135 inches, or 30.136 inches, or 30.137 inches, or 30.138 inches, or 30.139 inches, or 30.140 inches, or 30.141 inches, or 30.142 inches, or 30.143 inches, or 30.144 inches, or 30.145 inches, or 30.146 inches, or 30.147 inches, or 30.148 inches, or 30.149 inches, or 30.150 inches, or 30.151 inches, or 30.152 inches, or 30.153 inches, or 30.154 inches, or 30.155 inches, or 30.156 inches, or 30.157 inches, or 30.158 inches, or 30.159 inches, or 30.160 inches, or 30.161 inches, or 30.162 inches, or 30.163 inches, or 30.164 inches, or 30.165 inches, or 30.166 inches, or 30.167 inches, or 30.168 inches, or 30.169 inches, or 30.170 inches, or 30.171 inches, or 30.172 inches, or 30.173 inches, or 30.174 inches, or 30.175 inches, or 30.176 inches, or 30.177 inches, or 30.178 inches, or 30.179 inches, or 30.180 inches, or 30.181 inches, or 30.182 inches, or 30.183 inches, or 30.184 inches, or 30.185 inches, or 30.186 inches, or 30.187 inches, or 30.188 inches, or 30.189 inches, or 30.190 inches, or 30.191 inches, or 30.192 inches, or 30.193 inches, or 30.194 inches, or 30.195 inches, or 30.196 inches, or 30.197 inches, or 30.198 inches, or 30.199 inches, or 30.200 inches, or 30.201 inches, or 30.202 inches, or 30.203 inches, or 30.204 inches, or 30.205 inches, or 30.206 inches, or 30.207 inches, or 30.208 inches, or 30.209 inches, or 30.210 inches, or 30.211 inches, or 30.212 inches, or 30.213 inches, or 30.214 inches, or 30.215 inches, or 30.216 inches, or 30.217 inches, or 30.218 inches, or 30.219 inches, or 30.220 inches, or 30.221 inches, or 30.222 inches, or 30.223 inches, or 30.224 inches, or 30.225 inches, or 30.226 inches, or 30.227 inches, or 30.228 inches, or 30.229 inches, or 30.230 inches, or 30.231 inches, or 30.232 inches, or 30.233 inches, or 30.234 inches, or 30.235 inches, or 30.236 inches, or 30.237 inches, or 30.238 inches, or 30.239 inches, or 30.240 inches, or 30.241 inches, or 30.242 inches, or 30.243 inches, or 30.244 inches, or 30.245 inches, or 30.246 inches, or 30.247 inches, or 30.248 inches, or 30.249 inches, or 30.250 inches, or 30.251 inches, or 30.252 inches, or 30.253 inches, or 30.254 inches, or 30.255 inches, or 30.256 inches, or 30.257 inches, or 30.258 inches, or 30.259 inches, or 30.260 inches, or 30.261 inches, or 30.262 inches, or 30.263 inches, or 30.264 inches, or 30.265 inches, or 30.266 inches, or 30.267 inches, or 30.268 inches, or 30.269 inches, or 30.270 inches, or 30.271 inches, or 30.272 inches, or 30.273 inches, or 30.274 inches, or 30.275 inches, or 30.276 inches, or 30.277 inches, or 30.278 inches, or 30.279 inches, or 30.280 inches, or 30.281 inches, or 30.282 inches, or 30.283 inches, or 30.284 inches, or 30.285 inches, or 30.286 inches, or 30.287 inches, or 30.288 inches, or 30.289 inches, or 30.290 inches, or 30.291 inches, or 30.292 inches, or 30.293 inches, or 30.294 inches, or 30.295 inches, or 30.296 inches, or 30.297 inches, or 30.298 inches, or 30.299 inches, or 30.300 inches, or 30.301 inches, or 30.302 inches, or 30.303 inches, or 30.304 inches, or 30.305 inches, or 30.306 inches, or 30.307 inches, or 30.308 inches, or 30.309 inches, or 30.310 inches, or 30.311 inches, or 30.312 inches, or 30.313 inches, or 30.314 inches, or 30.315 inches, or 30.316 inches, or 30.317 inches, or 30.318 inches, or 30.319 inches, or 30.320 inches, or 30.321 inches, or 30.322 inches, or 30.323 inches, or 30.324 inches, or 30.325 inches, or 30.326 inches, or 30.327 inches, or 30.328 inches, or 30.329 inches, or 30.330 inches, or 30.331 inches, or 30.332 inches, or 30.333 inches, or 30.334 inches, or 30.335 inches, or 30.336 inches, or 30.337 inches, or 30.338 inches, or 30.339 inches, or 30.340 inches, or 30.341 inches, or 30.342 inches, or 30.343 inches, or 30.344 inches, or 30.345 inches, or 30.346 inches, or 30.347 inches, or 30.348 inches, or 30.349 inches, or 30.350 inches, or 30.351 inches, or 30.352 inches, or 30.353 inches, or 30.354 inches, or 30.355 inches, or 30.356 inches, or 30.357 inches, or 30.358 inches, or 30.359 inches, or 30.360 inches, or 30.361 inches, or 30.362 inches, or 30.363 inches, or 30.364 inches, or 30.365 inches, or 30.366 inches, or 30.367 inches, or 30.368 inches, or 30.369 inches, or 30.370 inches, or 30.371 inches, or 30.372 inches, or 30.373 inches, or 30.374 inches, or 30.375 inches, or 30.376 inches, or 30.377 inches, or 30.378 inches, or 30.379 inches, or 30.380 inches, or 30.381 inches, or 30.382 inches, or 30.383 inches, or 30.384 inches, or 30.385 inches, or 30.386 inches, or 30.387 inches, or 30.388 inches, or 30.389 inches, or 30.390 inches, or 30.391 inches, or 30.392 inches, or 30.393 inches, or 30.394 inches, or 30.395 inches, or 30.396 inches, or 30.397 inches, or 30.398 inches, or 30.399 inches, or 30.400 inches, or 30.401 inches, or 30.402 inches, or 30.403 inches, or 30.404 inches, or 30.405 inches, or 30.406 inches, or 30.407 inches, or 30.408 inches, or 30.409 inches, or 30.410 inches, or 30.411 inches, or 30.412 inches, or 30.413 inches, or 30.414 inches, or 30.415 inches, or 30.416 inches, or 30.417 inches, or 30.418 inches, or 30.419 inches, or 30.420 inches, or 30.421 inches, or 30.422 inches, or 30.423 inches, or 30.424 inches, or 30.425 inches, or 30.426 inches, or 30.427 inches, or 30.428 inches, or 30.429 inches, or 30.430 inches, or 30.431 inches, or 30.432 inches, or 30.433 inches, or 30.434 inches, or 30.435 inches, or 30.436 inches, or 30.437 inches, or 30.438 inches, or 30.439 inches, or 30.440 inches, or 30.441 inches, or 30.442 inches, or 30.443 inches, or 30.444 inches, or 30.445 inches, or 30.446 inches, or 30.447 inches, or 30.448 inches, or 30.449 inches, or 30.450 inches, or 30.451 inches, or 30.452 inches, or 30.453 inches, or 30.454 inches, or 30.455 inches, or 30.456 inches, or 30.457 inches, or 30.458 inches, or 30.459 inches, or 30.460 inches, or 30.461 inches, or 30.462 inches, or 30.463 inches, or 30.464 inches, or 30.465 inches, or 30.466 inches, or 30.467 inches, or 30.468 inches, or 30.469 inches, or 30.470 inches, or 30.471 inches, or 30.472 inches, or 30.473 inches, or 30.474 inches, or 30.475 inches, or 30.476 inches, or 30.477 inches, or 30.478 inches, or 30.479 inches, or 30.480 inches, or 30.481 inches, or 30.482 inches, or 30.483 inches, or 30.484 inches, or 30.485 inches, or 30.486 inches, or 30.487 inches, or 30.488 inches, or 30.489 inches, or 30.490 inches, or 30.491 inches, or 30.492 inches, or 30.493 inches, or 30.494 inches, or 30.495 inches, or 30.496 inches, or 30.497 inches, or 30.498 inches, or 30.499 inches, or 30.500 inches, or 30.501 inches, or 30.502 inches, or 30.503 inches, or 30.504 inches, or 30.505 inches, or 30.506 inches, or 30.507 inches, or 30.508 inches, or 30.509 inches, or 30.510 inches, or 30.511 inches, or 30.512 inches, or 30.513 inches, or 30.514 inches, or 30.515 inches, or 30.516 inches, or 30.517 inches, or 30.518 inches, or 30.519 inches, or 30.520 inches, or 30.521 inches, or 30.522 inches, or 30.523 inches, or 30.524 inches, or 30.525 inches, or 30.526 inches, or 30.527 inches, or 30.528 inches, or 30.529 inches, or 30.530 inches, or 30.531 inches, or 30.532 inches, or 30.533 inches, or 30.534 inches, or 30.535 inches, or 30.536 inches, or 30.537 inches, or 30.538 inches, or 30.539 inches, or 30.540 inches, or 30.541 inches, or 30.542 inches, or 30.543 inches, or 30.544 inches, or 30.545 inches, or 30.546 inches, or 30.547 inches, or 30.548 inches, or 30.549 inches, or 30.550 inches, or 30.551 inches, or 30.552 inches, or 30.553 inches, or 30.554 inches, or 30.555 inches, or 30.556 inches, or 30.557 inches, or 30.558 inches, or 30.559 inches, or 30.560 inches, or 30.561 inches, or 30.562 inches, or 30.563 inches, or 30.564 inches, or 30.565 inches, or 30.566 inches, or 30.567 inches, or 30.568 inches, or 30.569 inches, or 30.570 inches, or 30.571 inches, or 30.572 inches, or 30.573 inches, or 30.574 inches, or 30.575 inches, or 30.576 inches, or 30.577 inches, or 30.578 inches, or 30.579 inches, or 30.580 inches, or 30.581 inches, or 30.582 inches, or 30.583 inches, or 30.584 inches, or 30.585 inches, or 30.586 inches, or 30.587 inches, or 30.588 inches, or 30.589 inches, or 30.590 inches, or 30.591 inches, or 30.592 inches, or 30.593 inches, or 30.594 inches, or 30.595 inches, or 30.596 inches, or 30.597 inches, or 30.598 inches, or 30.599 inches, or 30.600 inches, or 30.601 inches, or 30.602 inches, or 30.603 inches, or 30.604 inches, or 30.605 inches, or 30.606 inches, or 30.607 inches, or 30.608 inches, or 30.609 inches, or 30.610 inches, or 30.611 inches, or 30.612 inches, or 30.613 inches, or 30.614 inches, or 30.615 inches, or 30.616 inches, or 30.617 inches, or 30.618 inches, or 30.619 inches, or 30.620 inches, or 30.621 inches, or 30.622 inches, or 30.623 inches, or 30.624 inches, or 30.625 inches, or 30.626 inches, or 30.627 inches, or 30.628 inches, or 30.629 inches, or 30.630 inches, or 30.631 inches, or 30.632 inches, or 30.633 inches, or 30.634 inches, or 30.635 inches, or 30.636 inches, or 30.637 inches, or 30.638 inches, or 30.639 inches, or 30.640 inches, or 30.641 inches, or 30.642 inches, or 30.643 inches, or 30.644 inches, or 30.645 inches, or 30.646 inches, or 30.647 inches, or 30.648 inches, or 30.649 inches, or 30.650 inches, or 30.651 inches, or 30.652 inches, or 30.653 inches, or 30.654 inches, or 30.655 inches, or 30.656 inches, or 30.657 inches, or 30.658 inches, or 30.659 inches, or 30.660 inches, or 30.661 inches, or 30.662 inches, or 30.663 inches, or 30.664 inches, or 30.665 inches, or 30.666 inches, or 30.667 inches, or 30.668 inches, or 30.669 inches, or 30.670 inches, or 30.671 inches, or 30.672 inches, or 30.673 inches, or 30.674 inches, or 30.675 inches, or 30.676 inches, or 30.677 inches, or 30.678 inches, or 30.679 inches, or 30.680 inches, or 30.681 inches, or 30.682 inches, or 30.683 inches, or 30.684 inches, or 30.685 inches, or 30.686 inches, or 30.687 inches, or 30.688 inches, or 30.689 inches, or 30.690 inches, or 30.691 inches, or 30.692 inches, or 30.693 inches, or 30.694 inches, or 30.695 inches, or 30.696 inches, or 30.697 inches, or 30.698 inches, or 30.699 inches, or 30.700 inches, or 30.701 inches, or 30.702 inches, or 30.703 inches, or 30.704 inches, or 30.705 inches, or 30.706 inches, or 30.707 inches, or 30.708 inches, or 30.709 inches, or 30.710 inches, or 30.711 inches, or 30.712 inches, or 30.713 inches, or 30.714 inches, or 30.715 inches, or 30.716 inches, or 30.717 inches, or 30.718 inches, or 30.719 inches, or 30.720 inches, or 30.721 inches, or 30.722 inches, or 30.723 inches, or 30.724 inches, or 30.725 inches, or 30.726 inches, or 30.727 inches, or 30.728 inches, or 30.729 inches, or 30.730 inches, or 30.731 inches, or 30.732 inches, or 30.733 inches, or 30.734 inches, or 30.735 inches, or 30.736 inches, or 30.737 inches, or 30.738 inches, or 30.739 inches, or 30.740 inches, or 30.741 inches, or 30.742 inches, or 30.743 inches, or 30.744 inches, or 30.745 inches, or 30.746 inches, or 30.747 inches, or 30.748 inches, or 30.749 inches, or 30.750 inches, or 30.751 inches, or 30.752 inches, or 30.753 inches, or 30.754 inches, or 30.755 inches, or 30.756 inches, or 30.757 inches, or 30.758 inches, or 30.759 inches, or 30.760 inches, or 30.761 inches, or 30.762 inches, or 30.763 inches, or 30.764 inches, or 30.765 inches, or 30.766 inches, or 30.767 inches, or 30.768 inches, or 30.769 inches, or 30.770 inches, or 30.771 inches, or 30.772 inches, or 30.773 inches, or 30.774 inches, or 30.775 inches, or 30.776 inches, or 30.777 inches, or 30.778 inches, or 30.779 inches, or 30.780 inches, or 30.781 inches, or 30.782 inches, or 30.783 inches, or 30.784 inches, or 30.785 inches, or 30.786 inches, or 30.787 inches, or 30.788 inches, or 30.789 inches, or 30.790 inches, or 30.791 inches, or 30.792 inches, or 30.793 inches, or 30.794 inches, or 30.795 inches, or 30.796 inches, or 30.797 inches, or 30.798 inches, or 30.799 inches, or 30.800 inches, or 30.801 inches, or 30.802 inches, or 30.803 inches, or 30.804 inches, or 30.805 inches, or 30.806 inches, or 30.807 inches, or 30.808 inches, or 30.809 inches, or 30.810 inches, or 30.811 inches, or 30.812 inches, or 30.813 inches, or 30.814 inches, or 30.815 inches, or 30.816 inches, or 30.817 inches, or 30.818 inches, or 30.819 inches, or 30.820 inches, or 30.821 inches, or 30.822 inches, or 30.823 inches, or 30.824 inches, or 30.825 inches, or 30.826 inches, or 30.827 inches, or 30.828 inches, or 30.829 inches, or 30.830 inches, or 30.831 inches, or 30.832 inches, or 30.833 inches, or 30.834 inches, or 30.835 inches, or 30.836 inches, or 30.837 inches, or 30.838 inches, or 30.839 inches, or 30.840 inches, or 30.841 inches, or 30.842 inches, or 30.843 inches, or 30.844 inches, or 30.845 inches, or 30.846 inches, or 30.847 inches, or 30.848 inches, or 30.849 inches, or 30.850 inches, or 30.851 inches, or 30.852 inches, or 30.853 inches, or 30.854 inches, or 30.855 inches, or 30.856 inches, or 30.857 inches, or 30.858 inches, or 30.859 inches, or 30.860 inches, or 30.861 inches, or 30.862 inches, or 30.863 inches, or 30.864 inches, or 30.865 inches, or 30.866 inches, or 30.867 inches, or 30.868 inches, or 30.869 inches, or 30.870 inches, or 30.871 inches, or 30.872 inches, or 30.873 inches, or 30.874 inches, or 30.875 inches, or 30.876 inches, or 30.877 inches, or 30.878 inches, or 30.879 inches, or 30.880 inches, or 30.881 inches, or 30.882 inches, or 30.883 inches, or 30.884 inches, or 30.885 inches, or 30.886 inches, or 30.887 inches, or 30.888 inches, or 30.889 inches, or 30.890 inches, or 30.891 inches, or 30.892 inches, or 30.893 inches, or 30



## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Leith, County of Edinburgh, in Lat. 55° 57' N, Long. 3° 10' W, Distance from Sea half miles.Height of Cistern of the Barometer above Mean Sea-Level 50 feet, above Ground 5 feet.During the MONTH of June 1895.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS.				HYGROMETER.				Rain.	WIND.				CLOUDS.				SUNSHINE.	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 Thermometer.	Barometer.	Attached Thermometer.	Max. No.	Min. No.	Max. in. Min. on Sun's rays Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	No. of hours in which it fell.		Direction.	Force.	Direction.	Force.	Velocity (0-10) and Species.	Amount (0-10) and Species.	Velocity (0-10) and Species.	Amount (0-10) and Species.		No. 1.	No. 2.	No. 3.							
		* No.	inches.	°	inches.	°	°	°	°	°	°	°	°		°	°	°	°	°	°	°	°		°	°	°					°	°	°
		29.774		29.842		70.8	51.8	64.5	57.8	64.5	57.8	57.7	55.0	0.09	E	1.5	E	1.4	4.5	Am. 3.0	6.0	6.0	6.0							Cloudy, with sunny inters; the lat. 3.15 pm. - 5.0 pm.	1		
	2	29.968		30.103		57.7	50.7			53.0	51.6	51.0	50.9	0.00	ENE	2.0	ENE	1.0	2.5	8.10 H. Inds.	10.0	10.0								Fine, cloudy; some th.; damp after 7.30 pm.	2		
	3	30.191		30.213		59.9	50.2			51.8	51.7	53.6	52.0	0.03	ENE	1.4	NE	0.75	Inds.	10.5	10.5	10.5								Cloudy, with li. sho. till 7 am.; sunny inters. afternoon.	3		
	4	30.234		30.314		61.9	51.9			56.6	54.8	55.4	53.2	0.00	ENE	1.5	SE	0.75	Inds.	10.5	10.5	10.5								Fine; sunny at times.	4		
	5	30.461		30.471		62.0	51.1			57.3	53.2	51.1	49.7	0.08	ENE	2.0	ENE	1.5	Inds.	10.5	10.5	10.5								Ind. prev. night; damp fine, sunny.	5		
	6	30.464		30.421		67.0	45.9			61.3	50.9	54.7	51.1	0.00	NE	0.5	NE	0.75	Inds.	10.5	10.5	10.5								Fine; bright sunshine.	6		
	7	30.376		30.231		74.2	48.8			65.3	56.8	62.5	57.8	0.00	NE	0.75	NE	0.5	Inds.	10.5	10.5	10.5								Fine, sunny; cloudless.	7		
	8	30.193		30.096		71.9	55.8			64.5	57.1	56.9	51.5	0.00	NE	1.0	NE	2.0	Inds.	10.5	10.5	10.5								Fine; mostly sunny. - So. ha. at 7 am.	8		
	9	30.004		29.928		71.6	50.3			60.2	55.4	58.5	51.0	0.00	SE	2.0	SE	1.4	Inds.	10.5	10.5	10.5								Fine; sunny at times.	9		
	10	29.951		29.885		65.7	53.0			57.9	49.0	54.6	48.8	0.00	SE	1.5	SE	2.0	Inds.	10.5	10.5	10.5								Fine, sunny.	10		
	11	29.820		29.831		59.8	47.2			56.7	47.8	50.6	46.3	0.06	SE	2.5	SE	1.5	Inds.	10.5	10.5	10.5								Cloudy, with sunny inters; the day afternoon.	11		
	12	30.013		30.140		55.8	43.6			52.0	45.0	46.2	43.0	0.04	NE	1.0	SE	0.75	Inds.	10.5	10.5	10.5								Cloudy, with sunny inters; the day afternoon.	12		
	13	30.138		30.132		62.7	39.9			55.2	48.0	47.8	46.6	0.07	NE	1.5	SE	0.75	Inds.	10.5	10.5	10.5								Cloudy, with sunny inters; the day afternoon.	13		
	14	30.155		30.240		57.3	45.3			53.7	46.7	47.6	43.2	0.03	NE	1.0	SE	1.0	Inds.	10.5	10.5	10.5								Fine, sunny at times till 4 pm. then cloudy; the afternoon.	14		
	15	30.198		30.140		64.1	40.9			53.9	48.5	51.5	46.1	0.00	NE	0.75	E	1.0	Inds.	10.5	10.5	10.5								Fine; mostly sunny.	15		
	16	30.050		29.991		63.7	42.9			58.5	50.9	49.8	46.2	0.00	NE	1.4	E	1.0	Inds.	10.5	10.5	10.5								Fine; mostly sunny.	16		
	17	29.952		29.828		57.7	41.9			56.6	48.7	52.6	48.1	0.00	NE	1.0	SE	1.0	Inds.	10.5	10.5	10.5								Fine; mostly sunny.	17		
	18	29.633		29.638		53.8	45.9			53.8	49.9	48.8	48.1	0.74	E	1.4	ENE	2.4	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	18		
	19	29.640		29.755		57.9	45.3			56.8	52.8	52.6	48.8	0.32	ENE	1.5	NE	1.0	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	19		
	20	29.922		30.029		64.8	44.9			56.6	51.2	55.7	49.6	0.01	NE	1.0	NE	1.5	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	20		
	21	30.108		30.223		65.0	44.8			57.5	52.6	55.6	50.6	0.10	NE	1.0	NE	1.0	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	21		
	22	30.225		30.200		72.9	48.8			61.5	57.8	61.5	58.1	0.00	NE	2.0	NE	2.0	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	22		
	23	30.277		30.405		76.1	56.3			63.9	58.5	56.5	52.8	0.00	NE	2.0	NE	2.0	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	23		
	24	30.492		30.456		61.9	48.8			57.5	54.1	54.6	51.8	0.00	E	1.4	E	1.4	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	24		
	25	30.398		30.244		66.2	50.8			57.4	55.6	54.8	51.7	0.00	ENE	0.75	NE	0.5	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	25		
	26	30.112		29.981		79.0	51.0			63.2	56.8	62.0	57.6	0.00	ENE	0.5	ENE	0.0	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	26		
	27	29.882		29.815		72.8	59.8			64.7	58.0	61.5	54.8	0.00	NE	1.0	NE	1.0	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	27		
	28	29.776		29.662		64.5	50.8			60.0	55.6	55.9	55.0	0.21	NE	0.5	ENE	0.75	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	28		
	29	29.611		29.521		66.1	52.4			62.3	58.7	55.5	52.8	0.13	E	1.0	S	1.0	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	29		
	30	29.529		29.613		68.4	51.1			59.6	55.6	54.1	52.9	0.17	SE	1.0	NE	0.5	Inds.	10.5	10.5	10.5								Clear, cloudy till 6.30 am. and heavy showers at times.	30		
	31																															Clear, cloudy till 6.30 am. and heavy showers at times.	31
	Sums.	901.547		901.353		1953.2	1468.9			1755.3	1591.3	1631.2	1527.1	2.08		35.5		31.0		17.0		16.0											
	Means.															1.18		1.03		5.6		5.3											
	+ Total Corrections for Instrumental Errors.																																
	+ Corrections for Diurnal Range.																																
	+ Corrected Means.	30.052		30.045		65.1	49.0			58.5	53.1	54.4	50.9	2.08																			
	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  $\frac{1}{1000}$  = 30.052  
for Temp. (Col. 2), = 30.045  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction  $\frac{1}{1000}$  = 30.045  
for Temp. (Col. 4), = 30.045  
Mean at Station, corrected, and at 32°, = 30.048  
Correction for height, feet above Mean Sea-level, = 30.048  
Mean, reduced to 32°, and Sea-level, = 30.048  
Highest Reading, corrected for Index error, on the 24th, = 30.494  
Lowest Do. Do., at 7 am. on the 30th, = 29.516  
Difference, or Monthly Range, = 0.978

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 26th, = 79.0  
Lowest in Month, corrected for Index errors, on the 13th, = 39.9  
Difference, or Monthly Range, = 39.1  
"Corrected Mean" of all the Highest, (Col. 5), = 65.1  
"Corrected Mean" of all the Lowest, (Col. 6), = 49.0  
Difference, or Mean Daily Range, = 16.1  
\*\* Calculated Mean Temperature of Month, = 57.0  
S.R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 11th, = 79.0  
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 79.0  
Lowest at Night, Black Bulb (corrected for Index errors), on the 11th, = 39.9  
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 39.9  
Difference of above means or range ("exposed"), = 39.1

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 56.4  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 52.0  
Computed Temperature of Dew-Point, = 47.9  
Do. Elastic Force of Vapour, = 0.335  
Do. Weight of Vapour in a Cubic Foot of Air, = 7.3  
Relative Humidity (Saturation = 100), = 73  
RAIN fell on 14 Days; Amount in Inches, = 2.08

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Mean Velocity in miles per day.
A.M.		2	5	9			3	8	3	1.18
P.M.		2	2	8	4	2	5	6	1	1.03
Mean.		2	4	8	2	1	4	7	2	1.10

1.21

Observations made and  
Return verified by

(Signed) James Polan &amp; George Redpath.







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Lith, County of Edinburgh, in Lat. 55° 59' N, Long. 3° 10' W, Distance from Sea half miles.Height of Cistern of the Barometer above Mean Sea-Level 50 feet, above Ground 5 feet.During the MONTH of July 1895.

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° and sea-level.		Read Daily, at 9 P.M.		Protected in Shade 4 feet above Ground.		Exposed Black Bulbs.		Dry No.		Wet No.			9 h. A.M.		9 h. P.M.		9 A.M.		9 P.M.		9 h. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		Barometer.	Attached Thermometer.	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.	No. in inches.		Direction.	Force.	Direction.	Force.	No.	Amount (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.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		inches.	°	inches.	°																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	1	29.609	29.507	63.8	49.6	58.7	56.0	55.7	54.8	0.36	SSW	1.5	SE	0.25	13	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW	10.0	SSW

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction  $\uparrow$  = 29.777  
for Temp. (Col. 2), = 29.777  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction  $\uparrow$  = 29.777  
for Temp. (Col. 4), = 29.777  
Mean at Station, corrected, and at 32°, = 29.401  
Correction for height, feet above Mean Sea-level, = 76  
Mean, reduced to 32°, and Sea-level, = 29.777  
Highest Reading, corrected for Index error, on the 5th, = 30.236  
Lowest Do. Do., at 11 a.m. on the 19th, = 29.376  
Difference, or Monthly Range, = 0.860

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 6th, = 76° 1  
Lowest in Month, corrected for Index errors, on the 13th, = 46° 9  
Difference, or Monthly Range, = 29° 2  
"Corrected Mean" of all the Highest, (Col. 5), = 64° 9  
"Corrected Mean" of all the Lowest, (Col. 6), = 51° 4  
Difference, or Mean Daily Range, = 13° 5  
\*\* Calculated Mean Temperature of Month, = 58° 2  
S.R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, =         
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, =         
Lowest at Night, Black Bulb (corrected for Index errors), on the th, =         
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, =         
Difference of above means or range ("exposed"), =       

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 57° 5  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 53° 7  
Computed Temperature of Dew-Point, = 50° 2  
Do. Elastic Force of Vapour, = 0.364  
Do. Weight of Vapour in a Cubic Foot of Air, =         
Relative Humidity (Saturation = 100), = 77  
RAIN fell on 20 Days; Amount in Inches, = 4.77

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.
A.M.		3	2	4	2	2	3	9	2	4
P.M.		0	2	4	3	0	9	9	1	3
Mean.		2	2	4	2	1	6	9	2	3

Observations made and  
Return verified by

(Signed) James Polam &amp; George Redpath.



# INSTRUCTIONS

# FOR TAKING METEOROLOGICAL

## WITH REMARKS ON THE USE OF INSTRUMENTS

# OBSERVATIONS,

To the SECRETARY

Scottish Meteorological Society,

122 George Street,

EDINBURGH.

### BOOK POST.

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 the 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 a scrupulous attention to the following Directions, secure for their Monthly Returns an accuracy and value commensurate with the labour and pains involved in making them; and, for the Tables published by the Society, an entire comparableness among the several Returns, without which the Society's Reports must inevitably fail in achieving one of the main objects of Meteorological Observation.

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 the hour 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 FORTIN'S Barometer; the arrangement consisting in applying a screw to the bottom of the stem, which, when turned, forces till it just meets the ivory point which forms the fixed scale.

The aneroid equally constructed by Mr. ADIE of London, and usually called the Barol of Trade Barometer, has the great advantage of requiring no adjustment of the cistern. Its scale, however, got 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 adjustment 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 FORTIN'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 surface of the mercury is then at the exact height from which the scale is graduated. In taking an observation, this preliminary setting must be made with scrupulous accuracy; as a slight error here 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 is that which is least liable to sudden changes of temperature.

In taking an Observation, the Attached Thermometer is first noted: the tube must then be gently tapped, and the cistern-adjustment carefully made. The eye, by raising and lowering it, must be brought into the plane of the back and front of the tube, and by 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 face passing from affecting the mercury. The observer is then to take an accurate adjustment of the height of the Barometer. A mistake not unfrequently made by these being unobservant, 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, 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 fascinating, the ivory peg must first be served 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 on 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 to 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 ivory peg, so as to prevent the air from ascending the float of the cistern, for, if this be not attended to, the mercury will flow out, and the instrument be seriously damaged.

correct numbering of the scale of every instrument; the rejection of Thermometers the frameworks of which are not likely to stand exposure to the weather, as shown in the past by repeated and annoying breakages of Thermometers of similar construction; and as regards Maximum Thermometers, either Negretti and Zambra's, or Phillips's, whether they will act at the highest temperatures they may be required to register. By the laws of the Society, Members and Observers have a right to have their instruments compared by the Secretary, and to advise with him regarding the purchase of instruments. Very great care should be bestowed on the Observations of the

Wind. Wind, the accuracy of which, both as regards Direction and Force, is so essential towards the right discussion of many of the more important problems of the science.

A Wind-Vane ought to be elevated at least 12 feet above surrounding objects. When it settles necessarily, the wind direction should be taken. In all cases, but especially when the Vane is stationary, and when the wind is feeble, reference may be made to the direction of smoke, etc., in well-exposed situations. Careful observations are recommended to be made on the direction of the wind, and during storms, extra observations at every 15 minutes. Such a system of simultaneous observation, pursued by different Stations, is likely to give highly valuable and important results, particularly in connection with the system of thinly-planted Stations, over a limited district round Edinburgh, called Storm-Plants, in the course of being established by the Society for the systematic investigation of the relation of the force of the wind to BAROMETRIC GRADIENTS, and other points connected with storms.

The Council would recommend the Hemispherical Cup Anemometer, a self-registering instrument which shows the Velocity and Pressure, also the mean Velocity of the Wind at the time of observation may be ascertained. For indicating the Force of the Wind at any particular hour of observation, the Pressure Anemometers recently brought under the notice of the Society by Mr. T. Stevenson, the Honorary Secretary, and Mr. R. Ballingall, the Society's Observer at Kailshaus, are recommended as likely to secure uniformity in making observations on the Force of the Wind.

Many causes conspire to produce anomalies in Rain Returns, arising partly from the difficulty of obtaining a perfectly unobstructed situation for observation, and partly from the defective nature of the instruments used. The Rain Gauge should not be placed on a slope or terrace, but on a level piece of ground, in as open a situation as the Observer can secure for it. As it is often difficult to obtain a position as free and unobstructed by surrounding objects as is desirable, care should be taken to place it at some distance from shrubs, trees, buildings, or other obstructions, at least as many feet from their base as they are in height. The more important directions, towards which it is most desirable to have a free exposure, are, in the order of their importance, S.W., N.E., S.E., S., and W. The

rim of the gauge must be perfectly level, and fixed so that it will remain level in all weathers, and be at a height of one foot above ground, over grass. In such gauges as Fleming's, which are furnished with a measuring-rod attached to a float, the rod ought to be fixed down, and the float rise to its height only at the time the instrument is read, it being found that a stem projecting above the rim of the gauge seriously interferes with the proper measurement of the Rain-fall. When a measuring-glass is used, care should be taken to hold it quite perpendicular. The Rain Gauge ought to be read daily at 9 A.M., and the reading entered in the columns of the previous day.

If the Gauge is read once a month, the reading is to be made on the first of the month, and the amount entered for the previous month. Snow-falls may, for convenience, be registered in the rain columns, under the following conditions:—When a Snow-shower occurs, it should be noted in the Remarks, and the letter S affixed to the depth of water received. In Gauge, the depth of the snow should be measured in some open place where no drift is observed, and, in addition, the snow should be cleared upon the indications of the Rain Gauge. For the purpose of registering observations only, and nothing that partakes of the nature of deduction or inference.

Convenient abbreviations for the nomenclature of Clouds will be found on the other side. The amount of Cloud ought to be estimated from the greater or less obscuration of the sky overhead (i.e. within 20° or 30° of the zenith). The strata of Clouds that appear near the horizon are viewed obliquely; and thus, being unable to judge of their amount, we ought not to take them into account in the Clouds' column, though their appearance and changes may be noted among the Remarks. The amount of Cloud is entered from a scale of 0 to 10; thus, when the sky over-Cloud is free from Clouds it is entered 0, when half-covered by Clouds, 5, wholly covered, 10, and so on.

Observations of the Clouds are made at 9 A.M. and at sunset, as illustrating the condition and currents of the upper and lower regions of the atmosphere. The entries in the schedule are to be made in the following manner:—Thus, in the column Velocity and Direction, 6, S. W.

will indicate that the upper strata of Clouds travel with extreme velocity from S.W., and those in the lower regions from W., with one-third the speed of the former. Again, in the second Cloud column, an entry of  $\frac{2}{4}$ , will indicate that the higher regions are covered to the amount of 4-tenths with stratus Clouds; and that the sky is further obscured to the extent of 2-tenths by lower Clouds of the cumulo stratus kind.

Remarks on peculiar Clouds, accompanied with drawings, will assist materially in the development of a more exact nomenclature of Clouds, as well as throw light on the electrical, and other of the more obscure phenomena of Meteorology.

The approximate number of Hours in which objects in the sun's rays cast shadows, should be entered in the proper sunshine column.

As the germination and growth of crops and plants generally depend greatly on the temperature of the soil—its amount and consistency—the Council recommend that, at 9 A.M., by Thermometers permanently fixed in the soil, their bulbs being sunk to depths of 3, 12, and 22 inches, and the stems above ground protected from the sun's rays, and fitted with sloping air collars, to protect the water being conveyed to the bulbs by the stems, to be noted in the Remarks.

A knowledge of the Temperature of the Sea is not only in itself, but in its relations to that of our island, of great importance. A fore-branch of the Temperature of the Sea be carefully taken by a properly constructed apparatus, from boats, or if this be impracticable, from the ends of piers and rocks round the coast, where it is not influenced by that of river water, and as little as possible by the temperature of the land, either greatly heated by the sun or cooled by nocturnal radiation. At or near the time of high

water, in cases where the observations cannot be taken daily, the observation may be made on the 5th, 15th, and 25th of each month. When convenient, extra Sea Observations might be taken for other, and greater depths, nothing always the Temperature of the Air, and the Hour of Observation. It is also very desirable that observations on the daily Maxima and Minima by Thermometers continuously immersed, be instituted at points along the coast, by the method proposed by Mr. T. Stevenson, and already commenced at Peccthead and Liverpool.

The Temperature of the water at the bottom of Wells ought, when practicable, to be taken, both the depth of the water, and of the water being noted.

Mention what Test-Papers are used, Schönbien's or Moffat's, etc. The Paper is affixed by a pin to a board in the Ther-

monometer Box, and the indications registered at 9 A.M. and 9 P.M. It is desired that these indications be registered in connection with the force and direction of the wind at the time of observation, in the following manner—thus  $\frac{3}{2}$ , as an Ozone entry in the schedule will indicate that the Ozone paper is tinted as 3 on the scale, that the wind is from the N.W., and that its force on the

scale 0—5 is 4, or blowing fresh.

Too much importance cannot be attached to the electric condition of the atmosphere in connection with terrestrial magnetism, barometrical, thermometrical, and meteorological phenomena generally. A proper Electrometer is, in truth, necessary to every complete meteorological observation.

The Remarks column is unavoidably too narrow. Some of the most valuable Observations that can be taken are those for which no rules can be given nor hours assigned. The use of contractions ought, therefore, to be taken into consideration, and a list of abbreviations to be given at the foot of the column. Besides special and extraordinary Observations, great providence ought to be given in this column to Precipitation, differences in character, colour, velocity, and direction between the Lower and Upper Strata of clouds, the Colour of the Sky, etc. Remarks ought to be made on the occurrence of Meteors, Auroræ Boreales remarkable depressions, elevations, and fluctuations of the Barometer, Thunder-Storms and remarkable falls of Snow, Hail, or Rain, the Hour of Storms of Wind commencing, attaining their maximum, and ending, as well as such Notes on Storms as have been hinted at above. When lofty hills are in the vicinity of a Station, the Height of Clouds and of the Snow-line in winter should be recorded.

By the use of abbreviations, the state of the weather at 9 A.M. and 9 P.M. should be registered, either in two columns, otherwise unoccupied, or ruled off for the purpose, from the column of 'Remarks.' Observations in connection with the Periodic Return of the Seasons, possess not only great scientific value, but connection with are of considerable importance in connection with the Periodic Agriculture, Horticulture, and Natural History. The Council would direct the special attention of Observers to the registration of such phenomena, so that the published Summaries may fairly represent the whole of Scotland.

Observations ought to be confined to individual trees and shrubs; to particular species of birds, and, in the case of crops, to specified sorts reared from year to year on a selected piece of ground or farm. The Annual Table, published yearly in the Society's Journal, will indicate the species of plants and animals to which special attention is more particularly directed.

The Council recommend Observers, before purchasing new instruments, and in repairing old ones, to communicate with the Meteorological Secretary, in order that every instrument may be examined and improved before being used; and they consider it necessary that he should have full power to reject any instrument which, on being presented for comparison, does not afford him satisfaction.

(By Order)

Secretary, December 1891.

OBSERVATIONS IN CONNECTION WITH THE PERIODICAL RETURN OF THE SEASONS.									
FOREST TREES.	In Flower.	In Leaf.	Directed of Leaves.	Barley.	Bare or Rye-grass.	Oats.	Wheat.	Peas.	Potatoes.
Alder.									
Beech.									
Elm.									
Larch.									
Oak.									
Sycamore or Plane.									
SHRUBS, ETC.									
Barberry.									
Bouquet or Elder.									
Broom.									
Hazel.									
Hawthorn.									
Holly.									
Laburnum.									
Lilac.									
Mazewell.									
Mountain Ash or Rowan.									
Red Flowering Currant.									
Rhododendron Ponticum.									
FRUIT.									
Apple.									
Black Currant.									
Cherry.									
Corn.									
Gooseberry.									
Peach.									
Plum.									
Strawberry.									
FIRST IN FRUIT RIFE.									
First in Blossom.									
First in generally.									
MIGRATORY BIRDS.									
Cuckoo.									
House-Swallow.									
Lapwing.									
Plover.									
Sand-Martin.									
Starling.									
Swan.									
Rail or Corn Cuckoo.									
ARRIVAL.									
First in Departure.									

Have the goodness also to state any information you may be able to collect relative to the Crops of Grain, Hay, Potatoes, Turnips, Fruits, etc., whether plentiful, or in perfection; whether any have suffered from blight, disease, etc. Whether Epizootic disease prevails among cattle; and the Agricultural condition of the district generally.



## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Leith, County of Edinburgh, in Lat. 55° 54' N, Long. 3° 10' W, Distance from Sea half mile.Height of Cistern of the Barometer above Mean Sea-Level 50 feet, above Ground 5 feet.During the MONTH of August 1895.

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 & above Ground.		Exposed Black Bulbs. Sun-rays Grass.		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.	Min.	Max. in Sun-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 (0-10), 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.
		* No.	inches.	°	inches.	°	No.	No.	No.	No.	Dry bulb.	Wet bulb.	Dry bulb.		Wet bulb.	No.	No.	Direction.	Force.	Direction.	Force.	No.	Direction.	Amount.	Species.					No.	Direction.
	1	29.900	29.773	62.5	50.7					58.4	53.0	53.8	51.8	0.00	SW	1.0	SE	0.5		1.5	SW	9.6u.	?	100	at. form.				Cloudy; li. pass. sho. abt. 4.30 p.m.	1	
	2	29.522	29.460	62.1	52.7					56.6	55.0	56.6	53.8	.18	SE	0.75	SW	1.0		2.5	E	10.4u.	0	0				Cloudy; showery; sunny inter. after 2 p.m.	2		
	3	29.327	29.240	63.9	52.7					61.7	55.8	54.6	53.0	.21	SW	1.0	SE	0.5		2.5	SW	1.6u.	1.8u.	10.0u.				Changeable; showers.	3		
	4	29.289	29.394	59.7	52.0					53.2	52.7	56.6	55.0	.23	NE	1.0	W	1.0		1.5	E	10.6u.	2.7u.	10.0u.				Cloudy; frequent passing sho.	4		
	5	29.377	29.346	57.7	54.7					55.7	54.8	54.9	54.8	.43	W	1.0	W	0.25		1.5	W	10.4u.	1.5u.	10.6u.				Overcast; heavy sho. all times.	5		
	6	29.396	29.537	67.0	53.8					57.5	55.6	56.6	54.8	.08	NE	0.5	W	0.5		1.7	NE	10.4u.	1.7u.	10.4u.				Clear, after 4.40 p.m. - 5.30 had night.	6		
	7	29.632	29.735	67.1	54.5					60.3	56.5	57.4	54.0	.02	W	1.0	W	1.4		1.5	W	10.6u.	?	8.6u.				Fine; mostly sunny, till 4 p.m. then cloudy; bright.	7		
	8	29.808	29.733	66.8	52.6					59.7	55.4	55.8	54.1	.00	W	1.5	Calu	0		1.5	W	2.6u.	?	8.6u.				Fine; mostly sunny.	8		
	9	29.561	29.523	67.9	53.0					56.5	55.7	59.5	57.7	.06	SE	0.5	SW	1.0		1.5	SW	9.6u.	1.5u.	8.6u.	6.1u.				Fine; bright sunshine at times.	9	
	10	29.662	29.599	66.9	55.8					59.8	55.3	57.6	56.8	.11	W	1.5	SE	1.5		1.5	W	3.2u.	2.5u.	10.6u.				Changeable; showery.	10		
	11	29.389	29.357	69.9	55.0*					64.5	61.8	55.0	53.8	.18	SE	1.5	W	0.25		1.5	W	2.6u.	1.5u.	10.6u.				Fine; sunny till abt. 1 p.m. then cloudy; bright sho.	11		
	12	29.458	29.560	64.1	53.6					58.5	54.6	57.6	54.8	.05	SW	1.5	W	1.0		2.5	W	2.6u.	1.5u.	10.6u.				Cloudy, with short sunny inter.; sho. dur. prev. night.	12		
	13	29.611	29.689	64.7	53.8					56.8	54.8	54.6	53.8	.30	Var.	0.25	Calu	0		1.5	SW	9.6u.	1.5u.	10.6u.				Cloudy; sho. till 7 a.m.	13		
	14	29.842	30.049	67.9	49.8					58.7	56.8	56.6	54.8	.00	W	0.25	W	0.25		1.5	SW	9.6u.	1.5u.	10.6u.				Cloudy; with bright sunshine at times; a few brief sho.	14		
	15	30.174	30.178	68.1	50.6					60.5	57.6	60.9	58.8	.00	W	0.25	W	0.25		1.5	SW	9.6u.	1.5u.	10.6u.				Fine; sunny at times; I bet. 4.15 + 4.45 p.m.	15		
	16	30.134	30.132	69.3	56.8					62.1	60.3	64.5	61.8	.02	SE	0.25	W	0.25		1.5	SW	9.6u.	1.5u.	10.6u.				Fine; mostly cloudy.	16		
	17	30.134	30.128	74.9	60.9					66.7	62.8	62.8	61.2	.10	Var.	0.25	Calu	0		1.5	SW	9.6u.	1.5u.	10.6u.				Cloudy; sho. till 7.30 a.m.	17		
	18	30.049	29.950	76.1	59.3					65.8	61.8	65.6	58.9	.24	S	0.5	SW	5.2		1.5	SW	9.6u.	1.5u.	10.6u.				Fine; sunny at times; brief sho. after 7.15 p.m.	18		
	19	29.959	30.009	68.5	60.0					63.9	59.4	61.5	57.8	.02	SW	2.0	W	1.0		1.5	SW	9.6u.	1.5u.	10.6u.				Heavy sho. prev. night; day fine; mostly sunny.	19		
	20	30.013	29.997	71.4	58.5					63.1	57.8	60.9	56.6	.00	W	1.0	SW	0.5		1.5	SW	9.6u.	1.5u.	10.6u.				Sho. till 8 a.m. then fine; bright sunshine at times.	20		
	21	29.932	29.913	68.8	55.4					59.3	57.6	60.5	57.9	.14	SW	0.25	W	1.0		1.5	SW	9.6u.	1.5u.	10.6u.				Fine; mostly sunny.	21		
	22	29.816	29.735	69.0	57.8					63.3	60.9	58.4	56.8	.73	W	0.25	W	1.5 + 2		1.5	SW	9.6u.	1.5u.	10.6u.				Fine; except sho. bet. 7 and 10 a.m.	22		
	23	29.712	29.720	66.8	52.3					60.4	57.1	55.6	53.8	.17	Var.	0.25	W	1.5		1.5	SW	9.6u.	1.5u.	10.6u.				Variable bet. 4.15 + 5.15 a.m.; day fine; mostly sunny.	23		
	24	29.833	30.036	62.7	49.8*					57.6	53.8	49.8	45.9	.10	W	0.5	W	2.4		1.5	W	6.6u.	0	0				Fine; mostly sunny; heavy cloud - 3.45 p.m.	24		
	25	30.111	30.016	60.7	46.3					56.4	51.1	54.6	50.7	.00	W	2.0	W	2.0		1.5	W	6.6u.	0	0				Cloudy; with sunny inter. sho. prev. night; aft. 6.30 p.m.	25		
	26	29.843	29.655	65.7	50.8					56.6	55.0	56.6	55.8	.15	W	1.0	E	1.0		1.5	W	10.4u.	9.6u.	10.6u.				Heavy r. at midnight 8.2 a.m.; day changeable; showery.	26		
	27	29.451	29.562	63.7	54.8*					58.7	56.8	55.6	53.8	.64	W	1.5	W	2.5		2.0	W	4.4u.	0	0				Mostly cloudy; a few passing sho.	27		
	28	29.921	29.921	64.7	52.2					57.8	53.3	59.3	55.8	.02	W	1.5	W	2.5		2.0	W	10.4u.	2.4u.	6.0u.				Cloudy; show. sunny inter. dur. afternoon.	28		
	29	29.861	29.764	65.1	57.2					62.1	58.1	60.0	56.9	.17	W	0.25	SW	2.25		2.0	W	9.6u.	3.8u.	8.6u.				Fine; mostly sunny; a few slight sho.	29		
	30	29.722	29.884	63.9	56.1					59.1	55.7	57.5	54.8	.00	W	0.25	W	2.25		2.0	W	9.6u.	2.0u.	4.0u.				Li. sho. at inter. till 9 a.m.; day fine; sunny at 4 p.m.	30		
	31	29.978	29.963	62.7	55.6					57.1	54.5	58.8	54.8	.02	W	2.0	W	2.5		2.0	W	9.6u.	2.0u.	3.0u.							
	Sums.	17 13 12 922.416 23	16 15 13 922.558 23	18 12 2053.1679-1 19	13 16 17 16					17 15 15 13 17 14 11 11 1848.317514 29 30 21 15	4 36				8		7			223		223							NOTATION USED IN GENERAL REMARKS.		
	Means.														894		108			7.2		7.2							TABLE FOR ESTIMATING FORCE OF WIND.		
	+ Total Corrections for Instru- mental Errors.																														
	+ Correc- tions for Diurnal Range.																														
	"Cor- rected Means."	29.755	29.760	66.2	54.2					59.6	56.5	57.7	55.0	4.36																	
	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., 29.755  
for Temp. (Col. 2), = 29.755  
"Corrected Mean" of Barometer at 9 P.M., 29.760  
for Temp. (Col. 4), = 29.760  
Mean at Station, corrected, and at 32°, 75.8  
Correction for height, feet above Mean Sea-level, = 76.0  
Mean, reduced to 32°, and Sea-level, 29.757  
Highest Reading, corrected for Index error, on the 15th, 30.178  
Lowest Do. Do., on the 3rd, 29.240  
Difference, or Monthly Range, 0.938

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 18th, 76.1  
Lowest in Month, corrected for Index errors, on the 25th, 46.3  
Difference, or Monthly Range, 29.8  
"Corrected Mean" of all the Highest, (Col. 5), 66.2  
"Corrected Mean" of all the Lowest, (Col. 6), 54.2  
Difference, or Mean Daily Range, 12.0  
\*\* Calculated Mean Temperature of Month, 60.2

S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 18th, 76.1  
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, 76.1  
Lowest at Night, Black Bulb (corrected for Index errors), on the 25th, 46.3  
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, 46.3  
Difference of above means or range ("exposed"), 29.8

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), 58.6  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), 55.8  
Computed Temperature of Dew-Point, 53.3  
Do. Elastic Force of Vapour, 0.407  
Do. Weight of Vapour in a Cubic Foot of Air, 8.3  
Relative Humidity (Saturation = 100), 83  
RAIN fell on 24 Days; Amount in Inches, 4.36

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.
A.M.		1	2	2	2	4	13	3	3	0.94
P.M.		2	1	2	4	18	1	3	1.08	
Mean.		0	1	2	2	4	15	2	3	1.01

1.02

Observations made and  
Return verified by(Signed) James Polan & George Riddell







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Leith, County of Edinburgh, in Lat. 55° 57' N, Long. 3° 10' W, Distance from Sea half miles.Height of Cistern of the Barometer above Mean Sea-Level 50 feet, above Ground 5 feet.During the MONTH of September, 1895.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.		SELF-REGISTERING THERMOMETERS.				HYGROMETER.				Rain.	WIND.				CLOUDS.				SUNSHINE.	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. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		No.	Barometer.	No.	Barometer.	No.	Max.	No.	Min.	No.	Max.	No.	Min.	No.	Max.	No.	Min.	No.	Max.	No.	Min.	No.	3 inches.	No.	12 inches.	No.			22 inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		inches.		inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2) = 30.0743

"Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4) = 30.054

Mean at Station, corrected, and at 32°, = 29.972

Correction for height, feet above Mean Sea-level, = 0.043

Mean, reduced to 32°, and Sea-level, = 30.043

Highest Reading, corrected for Index error, on the 20 th, = 30.389

Lowest Do. Do., at 7 a.m. on the 11 th, = 29.223

Difference, or Monthly Range, = 1.166

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 26 th, = 72.9

Lowest in Month, corrected for Index errors, on the 21st, = 41.9

Difference, or Monthly Range, = 31.0

"Corrected Mean" of all the Highest, (Col. 5), = 65.0

"Corrected Mean" of all the Lowest, (Col. 6), = 57.8

Difference, or Mean Daily Range, = 13.2

\*\* Calculated Mean Temperature of Month, = 58.4

S.R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, = 72.9

"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 65.0

Lowest at Night, Black Bulb (corrected for Index errors), on the th, = 41.9

"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 57.8

Difference of above means or range ("exposed"), = 13.2

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 57.3

Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 54.3

Computed Temperature of Dew-Point, = 51.6

Do. Elastic Force of Vapour, = 0.382

Do. Weight of Vapour in a Cubic Foot of Air, = 81

Relative Humidity (Saturation = 100), = 81

RAIN fell on 8 Days; Amount in Inches, = 0.59

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Mean Force.
A.M.	2	1	4	1	0	6	12	2	138	
P.M.	1	4	4	5	10	1	5	108		
Mean.	2	1	4	0	2.5	11	2	3	123	

1.51

Observations made and  
Return verified by(Signed) James Bolau & George Redpath







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Leith, County of Edinburgh, in Lat. 55° 59' N. Long. 3° 10' W. Distance from Sea half miles.  
Height of Cistern of the Barometer above Mean Sea-Level fifty feet, above Ground five feet. During the MONTH of October 1895.  
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° and sea-level.		Read Daily, at 9 P.M.				Dry No. Wet No.					9 h. A.M. 9 h. P.M.				9 A.M. 9 P.M.				9 h. A.M.											
		Barometer. Attached Thermometer.		Protected in Shade, 4 feet above Ground.				Max. in Sun/Grass. Min. on Grass.					9 h. A.M. 9 h. P.M.				9 A.M. 9 P.M.				No. 3 inches. No. 12 inches. No. 22 inches.											
		* No. inches.	°	No. inches.	°	No. inches.	°	No. inches.	°	No. inches.	°	No. inches.	°	No. inches.	°	No. inches.	°	No. inches.	°	No. inches.	°	No. inches.	°	No. inches.	°	No. inches.						
		1	29.715	29.420	61.5	50.0		52.9	52.9	61.5	57.8	0.02	Ely	1.0	8	1-24	India: 10.5	25.5	10.0	0							Thick f. hill abt. 2 p.m., then sunny mtd.; down, with l. sho. after 5 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	1				
		2	29.046	29.367	* 61.5	41.3		44.7	43.2	41.8	39.0	6.2	W	2.4	W	2.0	2.5	W	1.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	2				
		3	29.132	29.016	44.9	38.1		43.7	41.5	43.0	41.4	1.7	SE	1.4	W	2.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	3				
		4	29.268	29.552	50.7	38.8		44.7	40.2	44.7	41.0	0.1	W	2.0	W	2.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	4				
		5	29.433	29.462	55.9	44.1		51.8	47.9	47.0	45.1	1.2	W	2.4	W	2.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	5				
		6	29.505	29.492	53.7	43.3		49.1	46.0	45.7	43.1	0.4	W	2.5	W	2.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	6				
		7	29.487	29.479	50.7	41.9		46.7	43.0	43.7	42.0	0.5	W	2.4	W	2.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	7				
		8	29.451	29.466	53.7	40.9		45.5	44.9	47.7	47.3	2.9	E	0.25	W	2.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	8				
		9	29.287	29.384	52.0	45.5		49.4	45.5	47.9	44.0	1.9	W	2.4	W	2.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	9				
		10	29.699	29.827	53.1	44.7		47.0	42.0	44.7	42.1	0.0	W	2.5	W	2.0	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	10				
		11	29.972	29.759	51.6	43.0		48.5	43.4	51.6	49.2	0.2	W	2.0	W	2.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	11				
		12	29.732	29.963	60.7	51.4		57.2	54.4	54.6	51.8	0.0	W	2.5	W	2.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	12				
		13	29.969	29.917	55.0	51.7		53.6	50.9	51.7	50.1	0.0	W	2.5	W	2.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	13				
		14	29.895	30.042	52.7	45.6		52.0	51.6	46.8	46.0	5.8	W	0.25	E	1.0	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	14				
		15	30.088	30.092	* 47.7	42.1		44.7	43.8	42.7	41.4	5.6	W	0.25	E	1.0	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	15				
		16	30.272	30.464	51.1	38.0		42.6	39.4	44.1	38.3	0.2	W	1.4	W	0.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	16				
		17	30.559	30.529	50.5	35.0		38.1	36.4	38.7	37.0	0.0	W	1.0	W	1.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	17				
		18	30.511	30.428	51.6	33.9		39.4	38.9	44.8	42.0	0.0	W	1.0	W	1.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	18				
		19	30.358	30.251	52.7	38.4		47.6	45.1	48.1	45.3	0.0	W	2.0	W	1.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	19				
		20	30.305	30.233	* 48.6	42.8		44.3	42.6	43.0	43.0	1.0	W	1.5	Ely	0.25	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	20				
		21	30.096	30.089	43.7	37.2		40.6	38.9	37.8	35.0	2.0	W	2.5	W	2.0	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	21				
		22	30.046	29.908	43.3	37.0		39.8	36.4	38.0	34.9	0.1	W	2.4	W	1.0	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	22				
		23	29.772	29.576	42.8	35.1		38.7	34.7	36.1	32.9	0.0	W	2.0	W	1.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	23				
		24	29.412	29.391	42.5	33.0		35.9	33.1	35.9	32.9	0.0	W	1.4	W	1.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	24				
		25	29.417	29.498	43.2	34.7		37.3	34.0	35.5	32.9	0.0	W	2.0	W	1.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	25				
		26	29.683	29.663	44.5	34.0		39.1	36.6	34.7	31.9	1.5	W	1.5	W	1.0	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	26				
		27	29.708	29.719	43.0	33.9		37.7	34.6	36.7	33.9	0.0	W	1.4	W	0.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	27				
		28	29.667	29.762	39.2	31.4		34.6	32.1	35.8	35.1	0.4	W	1.0	W	0.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	28				
		29	29.948	30.073	43.4	35.4		38.5	35.4	36.7	33.3	0.3	W	1.0	W	0.5	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	29				
		30	29.908	29.707	47.8	34.2		42.5	39.1	44.9	42.9	0.1	W	2.0	W	1.0	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	30				
		31	29.978	29.302	46.3	41.9		43.5	40.9	41.9	38.8	0.1	W	1.5	W	2.4	India: 10.5	25.5	10.0	0							2 p.m. after 2 p.m. heavy r. at times bet. 3 a.m. & 8 p.m., & sho. at intervals till 1.30 p.m.; cloudy; frequent brisk sho. aft. 9.15 a.m.; evening clear.	31				
		Sums.	923.319	923.851	1539.6	1238.3		1371.7	1289.4	1344.8	1271.4	3.24	54.0	42.0			152															
		Means.	29.784	29.802	49.7	39.9		44.2	41.6	43.4	41.0		1.74	1.36			4.9															
		+ Total Corrections for Instrumental Errors.																														
		+ Corrections for Diurnal Range.																														
		+ "Corrected Means."	29.784	29.802	49.7	39.9		44.2	41.6	43.4	41.0	3.24																				
		No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2), = 29.784  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 29.802  
Mean at Station, corrected, and at 32, = 29.716  
Correction for height, feet above Mean Sea-level, = 0.77  
Mean, reduced to 32°, and Sea-level, = 29.793  
Highest Reading, corrected for Index error, on the 7th, = 30.559  
Lowest Do. Do., at 3 p.m. on the 3rd, = 29.016  
Difference, or Monthly Range, = 1.543

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 10th, = 61.5  
Lowest in Month, corrected for Index Errors, on the 28th, = 31.4  
Difference, or Monthly Range, = 30.1  
"Corrected Mean" of all the Highest, (Col. 5), = 49.7  
"Corrected Mean" of all the Lowest, (Col. 6), = 39.9  
Difference, or Mean Daily Range, = 9.8  
\*\* Calculated Mean Temperature of Month, = 44.8

S.R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 10th, = 61.5  
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 49.7  
Lowest at Night, Black Bulb (corrected for Index errors), on the 28th, = 31.4  
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 39.9  
Difference of above means or range ("exposed"), = 9.8

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 43.8  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 41.3  
Computed Temperature of Dew-Point, = 38.4  
Do. Elastic Force of Vapour, = 0.232  
Do. Weight of Vapour in a Cubic Foot of Air, = 80  
Relative Humidity (Saturation = 100), = 80  
RAIN fell on 21 Days; Amount in Inches, = 3.24

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.
A.M.		4	1	4			1	1	4	6
P.M.		2	1	4			1	3	19	1
Mean.		3	1	4	0	1	2	16	3	1

2-40

Observations made and  
Return verified by

(Signed) James Colman & George Redpath







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Leith, County of Edinburgh, in Lat. 55° 59' N, Long. 3° 10' W, Distance from Sea half mile.  
Height of Cistern of the Barometer above Mean Sea-Level fifty feet, above Ground five feet. During the MONTH of November 1895.  
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 Shade.	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.		Direction.	Force.	Direction.	Force.	Velocity (0-10), and Species.	Amount (0-10), and Direction.	Velocity (0-10), and Species.	Amount (0-10), and Direction.	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	30.529		30.549		43.8	35.9			37.0	35.0	36.7	34.9	0.00	NW	0.25	Sly	0.25	1.5	6.16	6.16	0	0				Fine; sunny at times; thick h. in the morning.	1	
	2	30.428		30.194		44.7	33.3			39.7	38.4	37.2	37.0	0.00	E	0.25	Ely	0.25	1.5	6.16	6.16	0	0				Fine, cloudy; rather hazy.	2	
	3	30.027		29.890		42.2	37.1			39.7	38.4	41.2	41.0	0.00	Cal	0	Ely	0.25	1.5	6.16	6.16	0	0				Cloudy; thick f. till about 11 a.m.	3	
	4	29.791		29.660		43.2	38.7			38.7	38.5	42.9	42.3	0.06	SE	1.0	Ely	0.25	1.5	6.16	6.16	0	0				Sh. early morning, at 9 p.m.; day fine, mostly cloudy.	4	
	5	29.466		28.962		48.7	42.0			45.9	45.9	46.0	45.0	1.5	SE	2.0	E	1.5	1.5	6.16	6.16	0	0				Cloudy, sh. till 9 a.m., and after 7 p.m.	5	
	6	28.842		29.177		51.6	45.9			49.6	47.0	49.2	46.9	0.8	NW	3.35	NW	2.5	1.5	6.16	6.16	0	0				Cloudy; showery; very squally.	6	
	7	29.578		29.712		52.2	46.0			50.1	47.0	47.7	45.9	0.00	W	4.5	W	1.5	1.5	6.16	6.16	0	0				Fine; mostly sunny.	7	
	8	29.796		29.785		50.7	42.7			47.7	45.8	42.7	42.0	0.4	W	3.0	Ely	0.25	1.5	6.16	6.16	0	0				Sh. early morning; day fine, sunny at times.	8	
	9	29.589		29.659		48.3	36.9			44.9	43.5	44.7	41.8	0.7	W	1.0	NW	2.0	1.5	6.16	6.16	0	0				Fine except sh. bet. 8.45 + 9.30 a.m., and at 9 p.m.	9	
	10	29.229		28.734		53.7	37.9			47.6	46.0	51.6	50.1	1.6	SE	1.5	SE	2.0	1.5	6.16	6.16	0	0				Cloudy, with sunny intervals; sh. till 11 a.m., and at 7 p.m.	10	
	11	28.862		28.965		56.7	42.1			46.7	43.6	42.6	40.0	1.4	W	2.5	SW	1.0	1.5	6.16	6.16	0	0				Heavy s.s. (4.5-5) till 11 a.m., with fog, sh. after 1 p.m., mostly	11	
	12	28.791		28.886		44.7	37.9			43.4	40.0	41.7	41.0	1.7	W	2.0	SE	0.5	1.5	6.16	6.16	0	0				Cloudy, with sunny intervals; sh. till 10.30 a.m., and at 4.45 p.m.	12	
	13	29.204		29.486		48.7	40.7			45.1	43.0	43.7	42.0	1.3	W	1.5	W	2.0	1.5	6.16	6.16	0	0				Sunny at times; sh. after 4.15 p.m.	13	
	14	29.390		29.564		47.0	38.2			45.3	42.8	41.1	39.2	2.7	NW	3.0	NW	2.3	1.5	6.16	6.16	0	0				Changeable; a few drizzle sh.	14	
	15	29.665		29.185		56.7	39.5			45.7	43.0	50.6	45.9	0.6	SE	1.5	NW	2.5	1.5	6.16	6.16	0	0				Cloudy; li. sh. at intervals after 1.40 p.m.; evening squally.	15	
	16	29.289		29.456		50.6	37.1			39.5	38.7	42.9	40.0	5.3	W	2.0	W	2.3	1.5	6.16	6.16	0	0				Cast, and r. till 1.30 p.m., and sh. at intervals later.	16	
	17	29.792		30.037		45.7	39.2			42.7	40.0	39.7	37.3	0.5	NW	2.5	W	2.0	1.5	6.16	6.16	0	0				Fine except sh. at 9.15 a.m., and 0.45 p.m.	17	
	18	30.227		30.270		46.7	34.6			34.7	34.1	39.7	39.0	0.7	E	0.5	E	1.0	1.5	6.16	6.16	0	0				Morning thick f.; day fine, sunny.	18	
	19	30.213		30.081		42.7	33.9			35.6	33.5	42.7	40.1	0.0	SE	1.4	E	2.0	1.5	6.16	6.16	0	0				Fine, sunny; thick f. in the morning.	19	
	20	29.942		29.909		49.7	42.3			46.2	44.0	48.4	47.0	0.5	SE	2.5	SE	1.5	1.5	6.16	6.16	0	0				Cloudy; sh. at 1.40 p.m., and 8.15 p.m.	20	
	21	29.995		29.948		51.3	46.9			48.6	47.0	51.3	49.7	1.2	SE	1.5	S	1.0	1.5	6.16	6.16	0	0				Overcast; showery after 11.45 a.m.	21	
	22	30.076		29.972		54.3	41.8			43.8	40.2	41.8	39.0	1.0	NW	1.4	W	1.5	1.5	6.16	6.16	0	0				Mostly cloudy; sh. at 1.4 p.m.; cloudless at 9 p.m.	22	
	23	30.167		30.398		44.1	38.6			38.7	35.9	44.1	42.8	0.7	N	2.4	NE	2.0	1.5	6.16	6.16	0	0				Mostly cloudy; sh. about 7 p.m.	23	
	24	30.562		30.596		44.1	35.2			35.7	34.6	40.8	37.9	0.0	SE	0.25	SE	1.0	1.5	6.16	6.16	0	0				Fine; cloudy after 10.30 a.m.	24	
	25	30.556		30.481		43.7	40.4			41.8	39.7	43.7	41.0	0.0	SE	1.4	E	1.6	2.0	1.5	6.16	6.16	0	0				Cloudy; fine.	25
	26	30.353		30.170		44.7	42.4			43.5	42.0	43.7	41.1	0.0	SE	1.5	E	2.0	1.5	6.16	6.16	0	0				Fine, cloudy.	26	
	27	30.036		29.998		43.8	41.8			42.9	41.0	41.8	40.9	0.0	SE	1.5	Ely	0.25	1.5	6.16	6.16	0	0				Fine; mostly cloudy.	27	
	28	29.934		29.829		45.9	41.8			44.5	44.0	45.7	45.0	0.5	SE	2.0	E	1.4	1.5	6.16	6.16	0	0				Cloudy; a few drizzling sh.	28	
	29	29.711		29.723		48.8	44.9			45.7	45.1	45.8	45.1	1.0	SE	1.5	SE	0.5	1.5	6.16	6.16	0	0				Cloudy, with sh. till 11 a.m., sunny intervals after 11 a.m.	29	
	30	29.699		29.735		47.1	43.2			45.3	45.1	43.7	41.7	0.5	SE	0.5	NW	2.0	1.5	6.16	6.16	0	0				Very dull; a few li. sh. - Fine h. at 9 p.m.	30	
	31																												
	Sums.	1512.5		1819.4		1416	1476			1295.3	1242.8	1315.4	1262.6	2.40	4.50	3.90					220		205.2						
	Means.	29.782		29.767		47.9400				43.2414	43.8421			1.50	1.30						7.3		6.8						
	+ Total Corrections for Instrumental Errors.																												
	+ Corrections for Diurnal Range.																												
	+ "Corrected Means."	29.792		29.767		47.9400				43.2414	43.8421	2.40																	
	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.	depression.	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.
h. l.	hail.	sq.	squalls.
l.	lightning.	t.	thunder.
li. cl.	light clouds.	t. s.	thunder-storm.
li. sh.	light showers.	w.	wind.
li. co.	lunar corona.	g.	gale of wind.
li. h.	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  $\pm$  = 29.792  
for Temp. (Col. 2), = .....  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction  $\pm$  = 29.767  
for Temp. (Col. 4), = .....  
Mean at Station, corrected, and at 32°, = 29.780  
Correction for height, feet above Mean Sea-level, = .....  
Mean, reduced to 32°, and Sea-level, = 29.779  
Highest Reading, corrected for Index error, on the 24th, = 30.596  
Lowest Do. Do., at 3 a.m. on the 11th, = 28.734  
Difference, or Monthly Range, = 1.862

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 11th, and 15th, = 56.7  
Lowest in Month, corrected for Index errors, on the 2nd, = 33.3  
Difference, or Monthly Range, = 23.4  
"Corrected Mean" of all the Highest, (Col. 5), = 47.9  
"Corrected Mean" of all the Lowest, (Col. 6), = 40.0  
Difference, or Mean Daily Range, = 7.9  
\*\* Calculated Mean Temperature of Month, = 43.9

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

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 43.5  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 41.7  
† Computed Temperature of Dew-Point, = 39.5  
† Do. Elastic Force of Vapour, = 0.244  
† Do. Weight of Vapour in a Cubic Foot of Air, = .....  
† Relative Humidity (Saturation = 100), = 86  
RAIN fell on 21 Days; Amount in Inches, = 2.40

WIND.		SUMMARY.							
Direction.	N	NE	E	SE	S	SW	W	NW	Mean Velocity in miles per day.
A.M.	1		7	7	2		10	2	150
P.M.		1	9	6	4		10		130
Mean.	1	1	8	6	3	0	10	1	140

Observations made and  
Return verified by

(Signed) James Bolau & George Redpath







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Leith County of Edinburgh in Lat. 55° 59' N, Long. 3° 10' W, Distance from Sea half miles.Height of Cistern of the Barometer above Mean Sea-level fifty feet, above Ground five feet.During the MONTH of December 1895.

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.		9 h. A.M.			9 h. P.M.		9 h. A.M.		9 h. P.M.						9 h. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		Barometer.	Attached Thermometer.	Barometer.	Attached Thermometer.	Max. in Shade.	Min. in Shade.		Max. in Sun.	Min. in Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.					No. of hours in which it fell.	Direction.	Force.	Direction.	Force.	No. 3 inches.	No. 12 inches.	No. 22 inches.	Temperature of Air.	Temperature of Surface.	Temperature of Water.	Temperature of Soil.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		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.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2), = 29.684  
Corrected Mean of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 29.686  
Mean at Station, corrected, and at 32°, = 29.685  
Correction for height, feet above Mean Sea-level, = 50  
Mean, reduced to 32°, and Sea-level, = 29.685  
Highest Reading, corrected for Index error, on the 27th, = 30.447  
Lowest Do. Do. at 4 p.m. on the 15th, = 28.818  
Difference, or Monthly Range, = 1.629

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 5th, = 53° 0  
Lowest in Month, corrected for Index errors, on the 22nd, = 27° 5  
Difference, or Monthly Range, = 25° 5  
"Corrected Mean" of all the Highest, (Col. 5), = 42° 4  
"Corrected Mean" of all the Lowest, (Col. 6), = 34° 9  
Difference, or Mean Daily Range, = 7° 5  
\*\* Calculated Mean Temperature of Month, = 38° 7  
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 11th, = 53° 0  
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 42° 4  
Lowest at Night, Black Bulb, (corrected for Index errors), on the 11th, = 27° 5  
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 34° 9  
Difference of above Means or Range ("exposed"), = 7° 5

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 38° 9  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 37° 0  
Computed Temperature of Dew-Point, = 34° 5  
Do. Elastic Force of Vapour, = 0.743 200  
Do. Weight of Vapour in a Cubic Foot of Air, = 80 835  
Relative Humidity, (Saturation = 100), = 80 835  
RAIN fell on 17 Days; Amount in Inches, = 2.444

WIND.		SUMMARY.			
Direction.	N	NE	E	SE	S
A.M.		1	4	7	1
P.M.		8	3	1	1
Mean.	0	1	6	5	1

272

(Signed) James Polans &amp; George Redpath

Observations made and  
Return verified by



SHRUBS, ETC.	FRUITS.	MIGRATORY BIRDS.	First in Arrival.	Department.
Barberry, . . . . .	Apple, . . . . .	Cuckoo, . . . . .	First in	
Bountree or Elder, . . . . .	Black Currant, . . . . .	Cherry, . . . . .	First in	
Broom, . . . . .	Cherry, . . . . .	House-Swallow, . . . . .	First in	
Hazel, . . . . .	Cean, . . . . .	Lapwing, . . . . .	First in	
Hawthorn, . . . . .	Gooseberry, . . . . .	Plover, . . . . .	First in	
Holly, . . . . .	Pear, . . . . .	Sand-Martin, . . . . .	First in	
Laburnum, . . . . .	Pear, . . . . .	Starling, . . . . .	First in	
Lilac, . . . . .	Plum, . . . . .	Swan, . . . . .	First in	
Mezerion, . . . . .	Strawberry, . . . . .	Rail or Corn Crane, . . . . .	First in	
Mountain Ash or Rowan, . . . . .			First in	
Red Flowering Currant, . . . . .			First in	
Rhododendron Ponticum, . . . . .			First in	
Whin, . . . . .			First in	

Have the goodness also to state any information you may be able to collect relative to the Crops of Grain, Hay, Potatoes, Turnips, Fruits, etc., whether plentiful, or in perfection from blight, disease, etc. Whether

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

122 *George Street,*

*EDINBURGH.*

BOOK POST.