

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 January 1898.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS.				HYGROMETER.				Rain.	WIND.				CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.		Days of Month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.			9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		Barometer.	Attached Ther- mometer.	Barometer.	Attached Ther- mometer.	Max.	Min.	Max. in Sun 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 (0-6) and Direction.	Amount (0-10) and Species.	Velocity (0-6) and Direction.	Amount (0-10) and Species.	No. 3 inches.						No. 12 inches.	No. 22 inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		* No.		No.		No.	No.	No.	No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		inches.		inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2) = 30.088
"Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4) = 30.106
Mean at Station, corrected, and at 32° = 30.081
Correction for height, feet above Mean Sea-level, = 56
Mean, reduced to 32°, and Sea-level, = 30.097
Highest Reading, corrected for Index error, on the 12th, = 30.531
Lowest Do. Do., at 9 am on the 1st, = 29.544
Difference, or Monthly Range, = 1.233

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 19th, = 57.7
Lowest in Month, corrected for Index errors, on the 5th, = 34.8
Difference, or Monthly Range, = 22.9
"Corrected Mean" of all the Highest, (Col. 5), = 49.2
"Corrected Mean" of all the Lowest, (Col. 6), = 42.0
Difference, or Mean Daily Range, = 7.2
** Calculated Mean Temperature of Month, = 45.6

S.R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 19th, = 57.7
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 49.2
Lowest at Night, Black Bulb (corrected for Index errors), on the 19th, = 34.8
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 42.0
Difference of above means or range ("exposed"), = 15.9

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 45.4
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 43.7
Computed Temperature of Dew-Point, = 40.5
Do. Elastic Force of Vapour, = 25.0
Do. Weight of Vapour in a Cubic Foot of Air, = 8.4
Relative Humidity (Saturation = 100), = 84
RAIN fell on 10 Days; Amount in Inches, = 0.80

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	2	-	1	-	8	18	-	1	1.82	
P.M.	-	-	2	2	1	10	14	-	2	1.52	
Mean.	1	1	1.	1	1	9	16	0	1	1.67	

Observations made and
Return verified by

(Signed) James Polaw & 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 February 1898.

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.		
		not. and red. to 32° and sea level.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		Dry No. Wet No.		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.		9 h. A.M.		9 h. A.M.		Temperature of Well at depth of feet, No.		Temperature at 1 foot, and Density.						0—10.	
		Barometer.		Barometer.		Max. Min.		Max. in Min. on Sun's rays Grass.		Dry bulb. Wet bulb.		Dry bulb. Wet bulb.			No. of hours in which it fell.		9 h. A.M. 9 h. P.M.		9 A.M. 9 P.M.		9 h. A.M.		9 h. A.M.		9 h. A.M.						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.
		inches.	°	inches.	°																											
	1	29.913		29.524		56.7	46.8*			49.3	46.1	46.8	43.0		0.12	W	2.5	W	2.5	3.0	7.0	2.0	9.0					Changeable; sunny at times; sq. after 1 p.m., and freq. chs. after 2.15 p.m.	1			
	2	29.140		29.729		*46.8	41.1			42.6	39.0	41.1	35.2		.09	W	3.0	W	2.3	1.0	2.0	1.0	1.0					Drizzle heavy sqs. with sh. bet. 2.6 p.m.; day fine, sunny at times; p.m. ch. at 10.15 p.m.	2			
	3	29.718		29.532		42.7	35.0			38.6	36.7	37.9	35.9		.00	W	2.0	W	1.0	1.0	1.0	1.0	1.0					Fine; sunny at times; a few sh. about 1 p.m.	3			
	4	29.432		29.679		*37.9	33.4			33.9	30.4	34.8	30.9		.00	W	1.0	W	1.5	2.0	1.0	1.0	1.0					Fine, outburst.	4			
	5	29.948		29.775		38.8	33.7*			33.9	30.1	37.7	34.0		.00	W	1.0	W	1.5	1.4	1.0	1.0	1.0					Fine; mostly sunny; evening cloudy.	5			
	6	29.491		29.471		*44.7	34.2*			38.4	35.9	34.7	33.2		.03	W	1.5	W	2.0	2.0	1.0	1.0	1.0					Fine, sunny till 3 p.m.; T.L. with heavy sh. at 3.31 p.m., li. S. chs. at 4.15 p.m.	6			
	7	29.583		29.804		40.4	32.9			34.2	32.1	37.8	35.3		.00	W	2.0	W	1.5	1.5	1.0	1.0	1.0					Fine, sunny.	7			
	8	29.792		30.025		45.5	37.7			39.4	36.8	39.7	37.3		.00	W	2.0	W	1.4	1.4	1.0	1.0	1.0					Fine; bright sunshine.	8			
	9	29.987		29.933		47.7	38.2			44.7	42.2	47.0	44.0		.00	W	2.0	W	2.0	2.0	1.0	1.0	1.0					Fine; mostly cloudy.	9			
	10	29.972		29.935		53.2	46.9			49.6	46.7	48.8	45.0		.00	W	2.0	W	2.0	2.0	1.0	1.0	1.0					Equally at times dark fine night; day fine, cloudy.	10			
	11	29.992		30.143		*48.8	43.9			44.5	42.3	45.7	41.9		.03	W	1.5	W	2.0	2.0	1.0	1.0	1.0					Equally, stormy till 6 a.m.; day fine, mostly sunny.	11			
	12	29.964		29.771		48.9	41.7*			46.6	43.0	41.7	40.0		.17	SW	2.0	W	2.3	3.5	1.0	1.0	1.0					Cloudy; sq. aft. 11 a.m.; heavy r. till 2 p.m., and about 4 p.m.	12			
	13	29.934		29.767		43.7	36.9			39.7	36.9	42.8	40.0		.03	SW	2.3	W	2.0	2.0	1.0	1.0	1.0					Fine, sunny till 1 p.m.; li. pass. chs. after 2.45 p.m.	13			
	14	29.894		30.035		47.4	44.3			42.3	39.4	47.4	44.3		.03	W	2.4	W	2.0	2.0	1.0	1.0	1.0					Equally, stormy early morning; day fine, mostly sunny; a few sh. chs.	14			
	15	29.559		29.643		*54.2	44.3*			54.1	50.1	45.7	41.1		.07	W	3.5	W	2.5	3.5	1.0	1.0	1.0					Equally, freq. li. chs. and heavy sh. at 4.40 p.m.; stormy inters.	15			
	16	29.739		30.009		*45.7	37.1			39.0	36.6	37.7	34.3		.16	W	3.4	W	1.5	2.4	1.0	1.0	1.0					Changeable; freq. chs. separated by sunny inters.; squally at times.	16			
	17	30.036		29.909		41.9	35.9			38.7	35.0	39.2	37.0		.00	W	2.0	W	1.6	1.4	1.0	1.0	1.0					Fine; mostly cloudy. — E. — li. at noon.	17			
	18	29.969		30.034		*39.2	33.6*			43.6	31.1	33.6	30.0		.00	W	1.5	W	1.0	1.0	1.0	1.0	1.0					Fine; mostly sunny.	18			
	19	29.764		29.252		43.5	32.0			36.7	34.7	43.5	41.3		.07	W	2.5	W	2.0	2.0	1.0	1.0	1.0					Cloudy; drizzle. sh. bet. 11 a.m. and 1 p.m.; cloudless at 9 p.m.	19			
	20	29.191		29.006		*43.5	31.1*			32.9	30.9	31.1	29.9		.00	W	1.5	W	2.0	2.0	1.0	1.0	1.0					Fine; sunny after 9.30 a.m.	20			
	21	29.210		29.328		39.7	26.0			30.7	28.9	37.2	34.9		.02	W	1.5	W	2.0	2.0	1.0	1.0	1.0					Cloudy; <u>squall</u> between 10 and 11 a.m.	21			
	22	29.518		29.754		40.6	35.9			38.4	34.9	36.2	33.3		.00	W	2.0	W	1.5	1.5	1.0	1.0	1.0					Fine; sunny at times.	22			
	23	29.966		30.116		41.4	32.0			33.2	30.7	33.7	31.4		.00	W	2.0	W	1.0	1.0	1.0	1.0	1.0					Fine; sunny; morning and evening hazy.	23			
	24	30.163		30.115		42.7	27.1			29.2	27.9	34.2	32.3		.00	W	0.5	SE	0.25	0.25	1.0	1.0	1.0					thick haze at times; sunny inters. during afternoon.	24			
	25	29.942		29.466		43.7	33.2			38.8	36.0	41.6	39.5		.00	SE	2.0	SE	2.0	2.4	1.0	1.0	1.0					Cloudy; sh. chs. at 11.30 a.m., and after 6.30 p.m.	25			
	26	29.634		29.720		42.7	35.9			37.7	35.6	38.5	36.1		.10	W	2.0	W	2.0	2.0	1.0	1.0	1.0					Changeable; r. sh. till 1 p.m., r. sh. S. sh. sh. with sunny inters. — E. — li. at 4.40 a.m. morn; fine; — E. — li. at 11.30 a.m., and after 6.30 p.m.	26			
	27	29.676		29.686		44.8	36.9			38.5	37.0	38.8	37.0		.08	W	2.0	W	2.0	2.0	1.0	1.0	1.0					Sh. till 7.30 a.m.; day fine, mostly sunny.	27			
	28	29.755		29.614		42.8	35.9			38.8	35.9	39.7	37.5		.03	W	2.5	W	2.0	2.0	1.0	1.0	1.0					Fine, except brief sh. at 2.15 p.m.	28			
	29																													29		
	30																													30		
	31	8.550		3.014		3.2	3.2			3.5	3.5																			31		
Sums.		8338.50		832.781		1246.10204				1099.6	1023.1	1146.10355		0.96		5.66		5.31			171		135									
Means.		29.745		29.742												2.03		1.90			6.2		4.8									
+ Total Corrections for Instrumental Errors.																																
+ Corrections for Diurnal Range.																																
"Corrected Means."		29.745		29.742		44.6	36.4			37.3	36.5	39.8	37.0	0.96																		
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. ns. nimbus. ci.-cu. cirro-cumulus. n. nimb. ci.-s. cirro-stratus. r. rain. cu. cumulus. h. r. heavy rain. cu.-s. cumulo-stratus. c. h. r. continued heavy rain. d. dew. s. stratus. f. fog. sc. squall. fr. frost. s. sleet. h.-fr. hoar-frost. s. snow. h. haze. so. li. solar halo. h. d. heavy dew. sq. squall. hi. hail. sqa. 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	0.5	Calm	Very light air	1.5	2.	Light breeze	Fresh breeze	4	5	Blowing hard	Blowing a gale																					
1	1.	Light air		3.	3.	Very fresh		6	6	Violent gale																						

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction $\frac{+1}{4}$	=	29.745
for Temp. (Col. 2), =		
"Corrected Mean" of Barometer at 9 P.M., minus the Correction $\frac{+1}{4}$	=	29.742
for Temp. (Col. 4), =		
Mean at Station, corrected, and at 32°,.....	=	29.687
Correction for height, feet above Mean Sea-level,.....	=	56
Mean, reduced to 32°, and Sea-level,.....	=	29.743
Highest Reading, corrected for Index error, ^{at 14 mi.} on the 24th,.....	=	30.168
Lowest Do. ^{at 19 mi.} on the 20th,.....	=	29.006
Difference, or Monthly Range,.....	=	1.158

S.-R. THERMOMETER , (in shade, etc.), Highest in Month , (corrected for Index Errors), on the 1 <i>af</i>	=	<u>56° 0</u>
Lowest in Month , corrected for Index errors, on the <i>71st</i>	=	<u>26° 0</u>
Difference, or Monthly Range ,	=	<u>30° 7</u>
"Corrected Mean " of all the Highest , (Col. 5),	=	<u>44° 6</u>
"Corrected Mean " of all the Lowest , (Col. 6).....	=	<u>36° 4</u>
Difference, or Mean Daily Range ,	=	<u>8° 2</u>
** Calculated Mean Temperature of Month,	=	<u>40° 5</u>
<hr/>		
S.-R. THERMOMETER , Black Bulb in Sun , Highest , (corrected for Index Errors), on the <i>th</i>	=	
"Corrected Mean ," (Col. 7), of Black Bulb , Max. in Sun ,	=	
Lowest at Night , Black Bulb (corrected for Index errors), on the <i>th</i> , =	=	
"Corrected Mean ," (Col. 8), of Black Bulb , Min. on grass,.....	=	
Difference of above means or range ("exposed"),	=	

HYCROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11),	=	39° 5
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12),	=	36.7
‡‡ Computed Temperature of Dew-Point,	=	32.9
‡‡ Do. Elastic Force of Vapour,	=	0.188
‡‡ Do. Weight of Vapour in a Cubic Foot of Air,	=	
‡‡ Relative Humidity (Saturation = 100),	=	78 ✓
RAIN fell on 14 Days; Amount in Inches,	=	0.96

WIND.	SUMMARY.										Calm or Variable.	Mean Force.	Mean Velocity in miles per day
	Direction.	N	NE	E	SE	S	SW	W	NW				
A.M.	-	-	-	1	-	4	19	4	0	2.02			
P.M.	1	-	1	2	-	6	15	2	1	1.90			
Mean.	1	0	1	1	0	5	17	3	0	1.96			

3-83 Elys

Observations made and
Return verified by

(Signed) James Polans & George Redpath.

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Luth, County of Edinburgh, in Lat. 55° 59' N, Long. 2° 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 March 1898.

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.				SUNSHINE. Hours.	THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.				Days of Month.			
		9 h. A.M.		9 h. P.M.		Protected in Shade & 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.			9 h. P.M.		As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc.					
		No.	Barometer.	No.	Barometer.	No.	Min.	No.	Max.	No.	Wet bulb.		No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.		No.	Wet bulb.	No.			Wet bulb.	No.	Wet bulb.	No.		Wet bulb.	Mention the hour at which Storms, including Thunder and Lightning, began and ended.	
		* No.	Barometer.	* No.	Barometer.	* No.	Min.	* No.	Max.	* No.	Wet bulb.		* No.	Wet bulb.	* No.	Wet bulb.	* No.	Wet bulb.	* No.	Wet bulb.		* No.	Wet bulb.	* No.			Wet bulb.	* No.	Wet bulb.	* No.		Wet bulb.	9 A.M.	9 P.M.
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°						
	1	29.352	29.323	40.332	40.332	35.033	36.734	0.02	W 2.5	W 2.0	2.0	W 2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Brick s. bet. 7.30 & 9.50 am; base s. sho. till 10.50 am; freq. bright sunshine.	1				
	2	29.594	29.720	44.735	44.735	40.635	36.834	0.0	W 2.0	W 1.5	1.0	W 2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Fine; sunny at times.	2				
	3	29.796	29.901	44.033	44.033	37.734	38.536	0.1	W 2.0	W 1.5	1.0	W 2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Cloudy, with sunny inters. dur. forenoon; li. sh. at 3.55 pm; and r. sho. at 6 pm.	3				
	4	29.964	30.031	43.234	43.234	38.734	37.634	0.0	W 2.0	W 1.0	1.0	W 2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Fine; occasional bright sunshine.	4				
	5	29.872	29.670	41.231	41.231	38.734	37.734	0.0	W 2.0	W 1.0	1.0	W 2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Cloudy; hazy.	5				
	6	29.697	29.910	45.234	45.234	38.734	37.634	0.0	SE 0.5	SE 0.5	0.5	SE 0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Fine, sunny.	6				
	7	30.158	30.256	40.730	40.730	33.332	34.632	0.0	Calcu 0	Calcu 0	0	Calcu 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Morning, thick S.; day, cloudy, with occasional dr. sunshine.	7				
	8	30.260	30.152	41.331	41.331	32.931	35.733	0.0	W 2.0	W 1.0	1.0	W 2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Fine, sunny; thick h. clearing and evening.	8				
	9	30.154	30.207	47.034	47.034	41.231	40.4	0.0	W 1.5	W 0.5	0.5	W 1.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Fine; mostly sunny bet. 10.30 am. and 2 pm.	9				
	10	30.175	30.247	51.838	51.838	45.734	46.5	0.0	W 2.5	W 1.5	1.5	W 2.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Fine; mostly sunny; evening cloudy.	10				
	11	30.200	30.053	52.836	52.836	47.634	47.634	0.0	W 2.0	W 1.5	1.5	W 2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Fine; sunny till about 1 pm; then cloudy.	11				
	12	29.904	30.030	49.039	49.039	48.534	49.837	0.1	W 2.5	W 1.0	1.0	W 2.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Cloudy; drizzle sho. bet. 10.45 am. & 1 pm; clearing at 1.45 pm; cloudless after.	12				
	13	29.951	29.707	48.734	48.734	42.734	42.034	0.7	W 2.0	W 1.5	1.5	W 2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Cloudy, with sunny inters. dur. afternoon; li. sh. aft. 5.45 pm; 1 brick sho. aft. 8 pm.	13				
	14	29.805	29.974	47.238	47.238	41.231	40.733	0.0	W 1.5	W 1.4	1.4	W 1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	Fine, sunny.	14				
	15	29.652	29.625	51.136	51.136	43.834	45.734	0.0	SSW 2.5	W 2.5	2.5	SSW 2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	Mostly cloudy; li. base sho. at 10.40 am. & 1 pm; sq. at times. Bright cl. at 4 pm.	15				
	16	29.796	29.816	50.332	50.332	45.734	47.137	0.2	W 2.0	W 2.0	2.0	W 2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Cloudy, with short inters. of sunshine; li. sho. after 6 pm.	16				
	17	29.624	29.646	55.037	55.037	52.634	49.232	0.0	W 3.0	W 2.5	2.5	W 3.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	Mostly cloudy; drizzle sho. about 1 pm.	17				
	18	29.512	29.434	55.431	55.431	53.734	49.931	0.2	W 3.5	W 3.5	3.5	W 3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	Squally; cloudy, with short sunny inters.; freq. heavy sq. s. aft. 11 am.; sho. aft. 5 pm.	18				
	19	29.792	30.010	* 51.038	* 51.038	42.734	46.932	0.3	W 1.5	W 1.0	1.0	W 1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Fine, sunny.	19				
	20	30.187	30.152	47.433	47.433	38.734	39.737	0.0	W 1.0	W 1.4	1.4	W 1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	Fine; mostly sunny; cloudy bet. noon and 1.15 pm.	20				
	21	30.171	30.172	51.736	51.736	43.734	40.734	0.0	W 1.0	W 1.5	1.5	W 1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Fine; mostly sunny till 3 pm.	21				
	22	30.082	29.882	48.430	48.430	43.834	41.136	0.0	W 1.0	W 2.3	2.3	W 1.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	Cloudy; fine.	22				
	23	29.919	30.118	* 48.239	* 48.239	43.134	41.039	0.6	NE 3.0	W 1.5	1.5	NE 3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Changeable; showery; sunny at times.	23				
	24	30.152	30.370	41.735	41.735	37.933	38.735	0.0	NE 3.5	NE 2.5	2.5	NE 3.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	Squally; sunny at times; frequent dr. s. sho.	24				
	25	30.408	30.381	41.234	41.234	36.634	37.232	0.3	NE 2.5	NE 2.3	2.3	NE 2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	Cloudy, with short inters. of sunshine; brick s. sho. at 6.55 am. & 1 pm; sq. at times.	25				
	26	30.148	29.946	* 38.631	* 38.631	37.333	36.735	1.2	NE 2.5	NE 3.5	3.5	NE 2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	Cloudy; freq. sho. of 3.00 ft. li. dur. day; 1 dr. s. at 9 pm; equally at times.	26				
	27	29.908	29.767	39.435	39.435	37.933	36.135	1.9	NE 2.5	NE 3.5	3.5	NE 2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	Cloudy; sq. at times; freq. r. dur. with dr. s. at 11.10 pm; r. bet. 2.13 & 2.30 pm.	27				
	28	29.588	29.539	41.734	41.734	39.834	38.436	3.7	E 3.5	Calcu 0	0	E 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Cloudy; sq. with dr. s. h. r. at times till 8.50 am; brick s. sho. at 4.40 pm. - Fin. h. at 2 pm.	28				
	29	29.408	29.500	37.433	37.433	35.432	35.834	3.9	S 1.0	SE 0.5	0.5	S 1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Overcast; r. with frequent light S. and dr.	29				
	30	29.592	29.681	43.734	43.734	38.837	38.834	0.1	NE 1.0	SE 0.5	0.5	NE 1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Fine; mostly sunny after 9.45 am.	30				
	31	29.783	29.839	48.731	48.731	36.334	37.935	0.0	Var. 0.25	W 0.5	0.5	Var. 0.25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Morning, thick h. fr.; day, fine, sunny at times; hazy.	31				
Sums.		926.604	927.055	1428.012	1428.012	126.531	117.594	13.5																					NOTATION USED IN GENERAL REMARKS.					
Means.		29.890	29.905	46.136	46.136	40.837	40.638																											
+ Total Corrections for Instrumental Errors.																																		
+ Corrections for Diurnal Range.																																		
** Corrected Means.		29.890	29.905	46.136	46.136	40.837	40.638	13.5																										
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), = 29.890
"Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 29.905
Mean at Station, corrected, and at 32°, = 29.841
Correction for height, feet above Mean Sea-Level, = 56
Mean, reduced to 32°, and Sea-level, = 29.897
Highest Reading, corrected for Index error, on the 25th, = 30.408
Lowest Do. Do., at 7 pm on the 10th, = 29.322
Difference, or Monthly Range, = 1.086

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 18th, = 55° 4
Lowest in Month, corrected for Index errors, on the 8th, = 29° 5
Difference, or Monthly Range, = 25° 9
"Corrected Mean" of all the Highest, (Col. 5), = 46° 7
"Corrected Mean" of all the Lowest, (Col. 6), = 36° 4
Difference, or Mean Daily Range, = 9° 7
** Calculated Mean Temperature of Month, = 41° 2
S.R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 18th, = 55° 4
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 46° 7
Lowest at Night, Black Bulb (corrected for Index errors), on the 8th, = 29° 5
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 36° 4
Difference of above means or range ("exposed"), = 20° 3

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 40.7
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 38.0
Computed Temperature of Dew-Point, = 34.6
Do. Elastic Force of Vapour, = 0.200
Do. Weight of Vapour in a Cubic Foot of Air, = 7.9
Relative Humidity (Saturation = 100), = 79
RAIN fell on 14 Days; Amount in Inches, = 1.35

WIND.		SUMMARY.									
Direction.	No.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
A.M.	5	2	1	2	2	13	4	2	145		
P.M.	1	4	1	3	1	5	12	1	145		
Mean.	1	4	2	2	2	4	12	2	145		

2.10

Observations made and
Return verified by

(Signed) James Colman & George Redpath

1

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 recommended to register. By the laws of the Society, Members and Observers have a right to have their instruments compared by the Secretaries, and to advise with him regarding the purchase of instruments. Very great care should be bestowed on the Observations of the wind, and the accuracy of which, both as regards Direction and Force, is so essential towards the right interpretation 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 is so well as possible. It is well known, that in all cases, the wind direction should be taken. In all cases, but especially when the Vane is stationary, and when the wind is feeble, especially when the Vane is stationary, and when the

But if Observations made at different Stations are incompatible, it is rendering it impossible to compare the Climates of places with each other as regards their most important features.

Professor Phillips, and Negretti and Zambra's Maximum Thermometers, and Rutherford's Minimum Thermometer, are recommended. It is recommended that these Thermometers be given to the class now. This

Minimum Thermometers are graduated on the stem, since the column of spirit heaving, and part of the spirit distilling by high temperature and lodging at the top of the tube. This arrangement is of occasional occurrence with protected Thermometers, but of frequent occurrence with exposed Thermometers. Hence a systematic examination of Minimum Thermometers ought to be a regular part of the work carried on by each Observer.

Fortunately, Spirit Thermometers may be easily set right by any one, when the column of spirit daunces to separate. Let the thermometer be taken in the hand and the farthest from the bulb, raised above the head, and then freely swung down towards the feet; the object being, on the impulse of centrifugal force, to send down the detached portion of spirit, till it is again united with the main column.

A few throws, or swinging strokes, will generally be sufficient for the purpose; after which the Thermometer should be placed in a slanting position, to allow the rest of the spirit still adhering to the sides of the tube to drain down to the bulb. But another method must be adopted, if the portion of spirit in the top of the tube be small. Heat should be applied slowly and cautiously to the top end of the tube where the detached portion of spirit is, which, being turned into vapour by the heat, will condense on the surface of the unbroken column of spirit. Care must be taken that the heat is not applied too quickly; for, if this be done, the tube will break and the instrument be destroyed. The best way to apply the requisite amount of heat is by bringing the end of the tube slowly down towards a minute flame from a gas-burner; or, if gas be not at hand, a piece of heated metal will serve instead.

The bulbs of the Thermometers for registering the greatest heat from the sun's rays, and the least from radiation

[illegible]

The Hygrometer in use at the Society's Stations consists of two thermometers usually, but not necessarily, mounted on one frame. As apparently slight deviations from the normal temperature of the air are sufficient to affect the readings of the Hygrometrical Observations, observers are specially requested to attend to the following conditions:—The bulbs must hang down at least an inch free from the scales and frame to which they are attached.

reached; the frame must be such as will bring the tubes forward an inch from any board on which it may be suspended; the water-tight top must be covered, and altogether placed to the side, and a little below the level of the wet bulb, but in no case under the bulbs; the interior must be of medium thickness and fastened at the neck of the bulb by the cotton, which also supplies it with water. It must be taken care to try the Observer that the munsin is always clean and moist, and the water pure. In frosty weather, observations at a number of intervals must be made, and the thermometer must be raised above the munsin by immersion from 15 to 30 minutes before the hour of observation. From the film of ice thus formed evaporation will proceed as from the moist cloth in ordinary circumstances.

In reading the Thermometer great care must be taken to bring

the eye exactly opposite the tip of the index on the column of mercury. The reading ought to be taken to tenths of a degree, and noted in decimals. Thus if the thermometer will be read $39^{\circ}.9$, $40^{\circ}.0$ or $40^{\circ}.1$; or again, $39^{\circ}.9$, $40^{\circ}.5$, $40^{\circ}.6$, according as it indicates a little more, an exact coincidence with, or a little over 40° , or $40\frac{1}{2}$, respectively. So also $40^{\circ}.5$, $40^{\circ}.6$, and $40^{\circ}.7$, more or less, must be registered $40^{\circ}.5$, $40^{\circ}.6$, and $40^{\circ}.7$, respectively. In reading Rutherford's Minimum thermometer the indication of that end of the index which is next the surface of the spirit is alone noted. On opening the thermometer box, the Dry and Wet Bulb Thermometers are to first be rapidly read, inasmuch as they are readily affected by heat from the person of the Observer.

The Hygrometer is read at 9 A.M. and 9 P.M. The Self-Registering Thermometers are read at 9 P.M. only, as indicating the greatest and least degrees of temperature in the 24 hours preceding. It is not material of

difference when the Self-Registering Thermometers are read, since, in winter at least, the extremes may occur at any hour; and it is necessary to refer their occurrence to their proper meteorological time of day. In the Society's schedules, the indications registered on the Self-Registering Thermometers are to be taken at 9 a.m. on the 1st, and extending till 9 p.m. on the 3d.

No instrument ought to be used for Meteorological purposes till it has been carefully tested by comparison with a standard Thermometer. When such Thermometers, as are not graduated on the stem, but merely on an attached scale, undergo repairs, they are very liable to be moved from their position on the Scale, and ought never afterwards to be used without being re-tested. The Self-Registering, especially the minimum Thermometers, ought frequently to be compared with a dry bulb of the Hygrometer. The freezing-point of each thermometer, marked by a scratch on the tube, ought to be tested once a year, in snow or melting ice.

In selecting instruments, the following points require attention.—The divisions of the vernier of Barometers in reference to the scales, and the perfect freedom of the Barometer-fm air; the

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 days and greater depths, noting 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. Stevenson, and already commenced at Peterhead and Liverpool. The Temperature of the water at the bottom of Wells ought, when practicable, to be taken, both the depth of the temperature Well and of the water being noted. Mention what Test-Papers are used, Schönböim's or Moffat's, etc. Ozons. The Paper is affixed by a pin to a board in the Thermometer Box, and the indications registered at 9 A.M. and 9 P.M. It is desired that these indications be registered in connection with the force and direction of the wind at the time of observation, in the following manner—thus 3-w., as Ozons enter

Two 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 observatory.

Remarks. Those for which no rules can be given nor hours most valuable. Observations that can be taken are those for which no rules can be given nor hours assigned. The use of contractions ought, therefore, to be taken every advantage of, when the such as in general use is given for the purpose of saving time. The special and extraordinary Observations and phenomena ought to be noted in the column to Precedent. The differences in character colour and temperature of the clouds in the Lower and Upper Strata of clouds, the Colour of the sky, etc. Remarks ought to be made on the occurrence of Meteors, aurora Borealis, remarkable depressions, elevations, and fluctuations of the Barometer, Thunder-storms and remarkable falls of Snow, Hail

the Hour of Storms of Wind commencing, attaining their maximum, and ending as well as such Notes on Storms as have been printed at above. When lofty hills are in the vicinity of a Station, the height of Clouds and of the Snow is in winter should be recorded.

height of clouds and of the snow-line in winter should be recorded. By the use of abbreviations, the state of the weather at 9 A.M. and P.M. should be registered; either two columns, otherwise uncoupled, or ruled off for the purposes from the column of 'Remarks'. Observations in connection with the Periodic Return of the Seasons, possess not only great scientific value, but in connection with are of considerable importance in connection with the Periodic Return of the Seasons. 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; particular species of birds and, in the case of crops, to specified varieties, and to the date of sowing and of the first appearance of the crop. Yearly or biennially, a selected piece of ground or farm should be marked out, and the results of the observations entered in the Annual Table, published yearly in the Society's Journal, will indicate the species of plants and animals to which special attention should more particularly be directed.

The Council recommend Observers, before purchasing new instruments, and in replacing old ones, to communicate with the Meteorological Society, 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, being presented for comparison, does not afford him satisfaction.

(By Order)

ECONOMIST, December 1891.

[illegible][illegible]

Barley,	..
Bare or Bigg,	..
Oats,	..
Wheat,	..
Beans,	..
Pease,	..
Potatoes,	..
Turnips,	..
Raye Grass,	..
GROSS mentioning variety.	

[illegible]

OBSERVATIONS		FOREST TREES.		Fruit	
	Alder,	•	•	•	•
	Asp.	•	•	•	•
	Beech,	•	•	•	•
	Birch,	•	•	•	•
	Elm,	•	•	•	•
	Larch,	•	•	•	•
	Lim,	•	•	•	•
	Oak,	•	•	•	•
	Sycamore or Plane,	•	•	•	•

SST TREES.	In Flower.	Leaf buds first appear.	In Leaf.	Divested of Leaves.	CROPS, mentioning variety.
.	Barley,
.	Bere or Bigg,
.	Oats,
.	Wheat,
.	Beans,
.	Pease,
.	Potatoes,
.	Tunip,
re or Plane,	Rye Grass,

[illegible]

(By Order)

To the

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 April 1898.
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.					
		Barometer.	Attached Thermometer.	Barometer.	Attached Thermometer.	Max.	Min.	Max.	Min.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.		Direction.	Force.	Direction.	Force.	Amount (0-10).	Amount (0-10).	Amount (0-10).	Amount (0-10).		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	29.858	29.841	49.7	37.6			45.3	42.2	40.7	40.0	0.00	W	2.0	W	1.0	24	W	3	11	3	11	3	11	3	11	3	11	1				
	2	29.640	29.588	51.5	39.1			47.0	43.3	42.7	39.5	0.00	W	2.4	W	2.0	24	W	3	11	3	11	3	11	3	11	3	11	2				
	3	29.604	29.495	49.7	39.3			43.9	40.6	43.4	40.9	0.4	W	2.0	W	2.5	24	W	3	11	3	11	3	11	3	11	3	11	3				
	4	29.716	30.058	49.7	35.1			42.7	37.3	39.2	35.9	0.1	W	2.0	W	0.5	24	W	3	11	3	11	3	11	3	11	3	11	4				
	5	30.122	30.001	49.2	31.9			39.8	36.3	42.4	38.3	0.00	W	1.4	W	1.5	24	W	3	11	3	11	3	11	3	11	3	11	5				
	6	29.820	29.802	55.9	42.1			48.8	46.0	55.1	53.8	0.23	W	2.4	W	2.0	24	W	3	11	3	11	3	11	3	11	3	11	6				
	7	29.926	30.008	57.1	49.9			50.4	49.6	54.7	50.9	1.6	S	1.0	W	1.2	24	W	3	11	3	11	3	11	3	11	3	11	7				
	8	30.013	29.826	59.9	46.9			55.1	47.0	54.6	46.1	0.00	SE	2.0	SE	1.0	24	W	3	11	3	11	3	11	3	11	3	11	8				
	9	29.505	29.619	57.5	44.9			54.4	48.8	50.8	47.5	0.00	W	2.4	SE	0.5	24	W	3	11	3	11	3	11	3	11	3	11	9				
	10	29.343	29.295	59.3	45.9			54.1	49.0	45.9	43.3	3.2	SE	2.3	SE	1.5	24	W	3	11	3	11	3	11	3	11	3	11	10				
	11	29.433	29.444	55.5	45.9			49.8	45.2	49.6	46.3	0.2	W	2.4	W	1.0	24	W	3	11	3	11	3	11	3	11	3	11	11				
	12	29.616	29.790	54.7	42.6			47.3	42.5	47.3	43.0	0.00	W	2.0	W	0.5	24	W	3	11	3	11	3	11	3	11	3	11	12				
	13	29.752	29.708	52.9	43.0			47.9	43.3	49.0	45.0	0.00	SE	1.5	SE	2.2	24	W	3	11	3	11	3	11	3	11	3	11	13				
	14	29.766	29.763	50.4	44.9			46.9	44.4	44.9	44.3	0.2	SE	1.4	E	1.0	24	W	3	11	3	11	3	11	3	11	3	11	14				
	15	29.701	29.776	47.4	43.7			44.5	44.2	45.8	43.2	3.9	W	1.0	W	1.0	24	W	3	11	3	11	3	11	3	11	3	11	15				
	16	29.916	29.925	55.7	40.3			48.3	43.7	47.8	43.2	0.1	W	2.0	W	1.5	24	W	3	11	3	11	3	11	3	11	3	11	16				
	17	29.869	29.774	56.1	42.6			50.6	45.9	45.9	42.2	0.00	SE	1.5	SE	1.4	24	W	3	11	3	11	3	11	3	11	3	11	17				
	18	29.725	29.792	61.5	41.1			49.9	44.2	45.9	43.0	0.00	SE	1.4	S	2.5	24	W	3	11	3	11	3	11	3	11	3	11	18				
	19	29.890	29.923	55.8	42.0			47.6	43.5	47.0	43.4	0.00	SE	2.0	SE	1.5	24	W	3	11	3	11	3	11	3	11	3	11	19				
	20	29.968	30.103	53.7	40.0			47.4	43.3	46.8	45.9	0.1	SE	2.0	W	0.25	24	W	3	11	3	11	3	11	3	11	3	11	20				
	21	30.189	30.170	55.5	45.0			49.6	47.5	47.0	45.9	0.00	W	0.25	W	0.5	24	W	3	11	3	11	3	11	3	11	3	11	21				
	22	30.126	30.027	51.7	44.1			47.6	46.1	44.8	43.3	0.00	E	1.4	W	1.0	24	W	3	11	3	11	3	11	3	11	3	11	22				
	23	30.000	30.023	48.4	42.9			47.6	44.8	46.1	45.9	1.2	W	1.0	W	0.0	24	W	3	11	3	11	3	11	3	11	3	11	23				
	24	30.162	30.228	53.4	45.4			49.6	46.6	49.6	44.1	0.2	Var.	0.25	SE	0.5	24	W	3	11	3	11	3	11	3	11	3	11	24				
	25	30.195	30.089	52.4	44.0			45.7	44.8	44.7	42.0	0.00	W	1.0	E	1.0	24	W	3	11	3	11	3	11	3	11	3	11	25				
	26	30.018	29.914	47.7	36.6			43.9	41.4	44.7	44.0	0.2	SE	2.0	W	1.5	24	W	3	11	3	11	3	11	3	11	3	11	26				
	27	29.786	29.681	51.1	43.0			44.9	44.2	44.7	44.0	1.1	SE	2.4	E	2.0	24	W	3	11	3	11	3	11	3	11	3	11	27				
	28	29.666	29.708	48.9	43.7			48.2	47.3	44.5	44.0	4.5	E	1.5	E	1.5	24	W	3	11	3	11	3	11	3	11	3	11	28				
	29	29.558	29.561	46.9	43.0			46.9	45.9	44.7	43.4	2.9	SE	2.0	E	2.0	24	W	3	11	3	11	3	11	3	11	3	11	29				
	30	29.519	29.317	55.7	40.1			49.8	47.5	44.9	44.5	0.3	SE	2.0	E	2.0	24	W	3	11	3	11	3	11	3	11	3	11	30				
	31																												31				
Sums.		894.402	894.749	1594.912	686			1435.5	1336.4	1395.1	1318.8	20.4																					
Means.		29.813	29.808	53.2	42.3			47.8	44.5	46.5	44.0	2.04																					
+ Total Corrections for Instrumental Errors.																																	
+ Corrections for Diurnal Range.																																	
"Corrected Means."		29.814	29.808	53.2	42.3			47.8	44.5	46.5	44.0	2.04																					
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), = 29.814
"Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 29.808
Mean at Station, corrected, and at 32°, = 29.756
Correction for height, feet above Mean Sea-level, = 0.55
Mean, reduced to 32°, and Sea-level, = 29.811
Highest Reading, corrected for Index error, on the 24th, = 30.228
Lowest Do. Do., on the 10th, = 29.265
Difference, or Monthly Range, = 0.963

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 18th, = 61.5
Lowest in Month, corrected for Index errors, on the 5th, = 31.9
Difference, or Monthly Range, = 29.6
"Corrected Mean" of all the Highest, (Col. 5), = 53.2
"Corrected Mean" of all the Lowest, (Col. 6), = 42.3
Difference, or Mean Daily Range, = 10.9
** Calculated Mean Temperature of Month, = 47.7
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), = 47.1
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 44.2
Computed Temperature of Dew-Point, = 44.9
Do. Elastic Force of Vapour, = 0.259
Do. Weight of Vapour in a Cubic Foot of Air, =
Relative Humidity (Saturation = 100), = 79
RAIN fell on 17 Days; Amount in Inches, = 2.074

WIND.		SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day
A.M.	1	1	5	5	3	3	8	3	1	1.68	
P.M.	2	3	5	3	3	3	9	1	1	1.27	
Mean.	2	2	5	4	3	3	8	2	1	1.48	

Observations made and
Return verified by

(Signed) James Colman & George Redpath.

The Hours of Observation are of Greenwich Time.

Observations made and
Return verified by { _____

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

+ Embracing corrections for both copularity and Index Errors.

† The Diurnal Range for Scotland is as yet unknown.

‡ Practically, though not *absolutely* a *misus* correction.

§ These "Hyometrical Deductions" are calculated from Glaisher's Hyometrical Tables, Second Edition only.

¶ While the Diurnal Range is ascertained, the Annual Range of Cold, 5 and 6 will be entered as the "Gleaned Mean Temperature."

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

[illegible]

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 June 189 8.
 The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	B. & M. THERMOMETER.				SELF-REGISTERING THERMOMETER.				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.		Dry No.		Wet No.			9 h. A. M.		9 h. P. M.		9 A. M.		P. M.		9 h. A. M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		Barometer.	Attached Ther- mometer	Barometer.	Attached Ther- mometer	Max.	Min.	Max. in Sun's rays	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.		No. of hours in which it fell.	Amount in inches.	Direction.	Force.	Direction.	Force.	Velocity (0-6) and Direction.	Amount (0-10) and Species.	Velocity (0-6) and Direction.	Amount (0-10) and Species.	No.					No.	No.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		* No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.					No.	No.	No.	No.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		inches.	°	inches.	°																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

NOTATION USED IN GENERAL REMARKS.

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

TABLE FOR ESTIMATING FORCE OF WIND.

Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.
0	Calm	1.5	Light breeze	4	Blowing hard
0.5	Very light air	2	Fresh breeze	5	Blowing a gale
1	Light air	3	Very fresh	6	Violent gale

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2), = 29.925
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 29.938
 Mean at Station, corrected, and at 32°, = 29.977
 Correction for height, feet above Mean Sea-level, = 54
 Mean, reduced to 32°, and Sea-level, = 29.931
 Highest Reading, corrected for Index error, on the 14th, = 30.391
 Lowest Do. Do., at 3 p.m. on the 24th, = 29.300
 Difference, or Monthly Range, = 1.091

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 17th, = 73.9
 Lowest in Month, corrected for Index errors, on the 1st, = 43.0
 Difference, or Monthly Range, = 30.9
 "Corrected Mean" of all the Highest, (Col. 7), = 62.9
 "Corrected Mean" of all the Lowest, (Col. 8), = 49.3
 Difference, or Mean Daily Range, = 13.6
 ** Calculated Mean Temperature of Month, = 56.1
 S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 17th, = 73.9
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 62.9
 Lowest at Night, Black Bulb (corrected for Index errors), on the 1st, = 43.0
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 49.3
 Difference of above means or range ("exposed"), = 13.6

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 55.3
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 51.6
 Computed Temperature of Dew-Point, = 48.0
 Do. Elastic Force of Vapour, = 0.337
 Do. Weight of Vapour in a Cubic Foot of Air, = 77
 Relative Humidity (Saturation = 100), = 77
 RAIN fell on 3 Days; Amount in Inches, = 1.62

Direction.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
A.M.	-	5	6	1	1	1	14	2	0	1.42
P.M.	-	5	4	1	1	4	10	1	1	1.31
Mean.	0	5	6	1	1	3	12	2	0	1.36

1-85 64

Observations made and
 Return verified by

(Signed) James Pollock & George Redpath.

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Luth, 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 fifty feet, above Ground five feet. During the MONTH of July 1898.
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 A.M.				9 h. A.M.											
		Barometer.		Barometer.		Max. in Shade.		Max. in Sun.		Dry bulb.				Wet bulb.				9 A.M.				9 h. A.M.											
		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.	No.	inches.				
	1	30.094	30.002	62.7	52.9	57.5	52.3	56.5	52.2	0.00	11.5	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	2	29.896	29.809	62.9	50.1	60.5	52.0	51.7	47.8	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	3	29.846	29.734	62.7	46.9	56.9	49.9	49.6	47.2	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	4	30.118	30.216	62.9	48.1	56.0	50.8	53.8	49.8	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	5	30.234	30.156	62.9	46.9	52.8	50.5	57.7	55.9	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	6	30.182	30.114	66.8	57.0	64.4	60.3	59.8	57.6	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	7	30.092	30.168	73.6	56.0	64.5	58.9	58.7	53.2	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	8	30.252	30.313	70.2	48.8	61.9	53.9	54.0	50.2	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	9	30.352	30.400	65.8	48.9	61.5	55.0	54.6	49.8	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	10	30.430	30.390	71.9	48.8	59.3	53.8	63.5	57.5	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	11	30.378	30.235	72.9	54.8	62.5	58.0	60.6	56.8	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	12	30.056	29.964	64.1	55.1	64.7	57.6	56.8	52.6	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	13	29.896	29.986	64.9	52.4	62.5	52.8	53.7	49.7	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	14	29.936	29.973	72.1	49.8	55.7	50.8	57.6	53.8	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	15	30.089	30.125	74.9	49.4	63.4	55.7	62.4	57.7	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	16	30.051	30.075	69.5	56.3	61.4	57.1	57.7	53.3	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	17	30.102	29.846	61.6	49.8	57.0	52.3	60.6	59.2	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	18	29.696	29.766	65.8	58.8	60.5	56.6	58.5	55.0	0.08	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	19	29.982	30.069	61.8	50.0	54.7	49.9	52.5	47.9	0.08	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	20	30.122	30.121	70.8	46.4	61.1	54.6	58.7	53.8	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	21	30.054	29.942	71.9	49.3	61.1	55.3	61.7	57.0	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	22	29.828	29.632	66.9	52.9	60.0	56.3	63.8	59.8	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	23	29.561	29.805	69.9	54.6	59.6	55.8	54.6	48.2	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	24	29.958	30.041	68.9	46.2	60.4	51.2	51.6	47.8	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	25	30.065	30.107	67.1	44.7	56.6	52.7	55.1	53.3	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	26	30.139	30.100	65.1	52.0	59.8	56.8	56.6	55.7	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	27	30.098	29.990	63.7	54.9	55.6	54.8	59.5	56.0	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	28	29.809	29.997	71.9	54.1	63.0	58.6	54.6	53.6	0.26	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	29	30.211	30.263	60.8	50.3	53.1	48.8	50.6	47.4	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	30	30.238	30.142	68.9	44.9	61.0	52.8	59.5	53.8	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
	31	30.060	30.032	69.8	55.8	59.8	56.6	60.7	56.1	0.00	11.0	11.0	21.0	10.0	11.0	8.0	11.0	10.0	11.0	8.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0					
Sums.		931.785	931.707	2079.7	1586.9	1848.8	1632.5	1767.9	1649.7	1.45																							
Means.																																	
+ Total Corrections for Instrumental Errors.																																	
+ Corrections for Diurnal Range.																																	
"Corrected Means."		30.058	30.055	67.1	51.2	59.6	54.3	57.0	53.3	1.45																							
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					

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2), = 30.058
"Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 30.055
Mean at Station, corrected, and at 32°, = 30.002
Correction for height, feet above Mean Sea-Level, = 5h
Mean, reduced to 32°, and Sea-level, = 30.056
Highest Reading, corrected for Index error, on the 10th, = 30.430
Lowest Do. Do., at 9 a.m. on the 23rd, = 29.561
Difference, or Monthly Range, = 0.869

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 15th, = 74.9
Lowest in Month, corrected for Index errors, on the 25th, = 44.7
Difference, or Monthly Range, = 30.2
"Corrected Mean" of all the Highest, (Col. 5), = 67.1
"Corrected Mean" of all the Lowest, (Col. 6), = 51.2
Difference, or Mean Daily Range, = 15.9
** Calculated Mean Temperature of Month, = 59.1
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 15th, = 74.9
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 67.1
Lowest at Night, Black Bulb (corrected for Index errors), on the 25th, = 44.7
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 51.2
Difference of above means or range ("exposed"), = 15.9

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 58.3
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 53.7
† Computed Temperature of Dew-Point, = 49.6
† Do. Elastic Force of Vapour, = 0.356
† Do. Weight of Vapour in a Cubic Foot of Air, = 7.3
† Relative Humidity (Saturation = 100), = 73
RAIN fell on 8 Days; Amount in Inches, = 1.45

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

Observations made and
Return verified by

(Signed) James Polans & 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 August 1898.
 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.			No. of hours in which it fell.	Amount in inches.	9 h. A.M.		9 h. P.M.		9 A.M.		9 P.M.		No. 3 inches.					No. 12 inches.	No. 22 inches.			
		Barometer.	Attached Ther. monometer.	Barometer.	Attached Ther. monometer.	Max. No.	Min. No.	Max. in Sun's rays.	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.				Direction.	Force.	Direction.	Force.	Velocity (0-6) and Direction.	Amount (0-10) and Species.	Velocity (0-6) and Direction.	Amount (0-10) and Species.								No. 1 inches.	No. 2 inches.	No. 4 inches.
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	
	1	29.975	29.882	66.5	53.8	58.5	54.0	60.8	57.1	0.00	16.5	2.0	16.5	2.0	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	1
	2	29.942	29.625	66.8	58.3	64.2	58.3	61.8	59.8	0.07	16.5	2.5	16.5	2.0	2.0	16.5	2.5	16.5	2.0	16.5	2.5	16.5	2.0	16.5	2.5	16.5	2.0	16.5	2.5	16.5	2.0	16.5	2.5	2
	3	29.663	29.638	66.5	52.8	59.5	53.3	56.7	52.9	0.00	16.5	1.5	16.5	2.0	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	3
	4	29.751	29.907	66.8	51.3	60.0	53.3	54.5	50.8	0.00	16.5	2.0	16.5	2.0	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	4
	5	29.551	29.421	63.7	50.8	52.0	51.8	54.5	57.9	0.40	16.5	2.0	16.5	1.5	2.0	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	5
	6	29.724	29.739	65.6	51.3	58.5	52.8	54.6	49.8	0.00	16.5	1.0	16.5	1.5	2.0	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	6
	7	29.945	29.730	63.9	46.9	58.7	52.8	54.7	50.7	0.00	16.5	1.4	16.5	0.5	2.0	16.5	1.4	16.5	0.5	16.5	1.4	16.5	0.5	16.5	1.4	16.5	0.5	16.5	1.4	16.5	0.5	16.5	1.4	7
	8	29.808	29.937	62.4	44.4	58.6	50.8	54.6	53.1	0.07	16.5	0.8	16.5	1.6	2.0	16.5	0.8	16.5	1.6	16.5	0.8	16.5	1.6	16.5	0.8	16.5	1.6	16.5	0.8	16.5	1.6	16.5	0.8	8
	9	30.064	30.055	67.0	49.8	57.0	51.0	54.7	50.7	0.01	16.5	0.8	16.5	1.5	2.0	16.5	0.8	16.5	1.5	16.5	0.8	16.5	1.5	16.5	0.8	16.5	1.5	16.5	0.8	16.5	1.5	16.5	0.8	9
	10	29.627	29.844	70.9	51.8	58.5	51.8	61.5	59.8	0.06	16.5	0.8	16.5	2.5	2.0	16.5	0.8	16.5	2.5	16.5	0.8	16.5	2.5	16.5	0.8	16.5	2.5	16.5	0.8	16.5	2.5	16.5	0.8	10
	11	29.976	29.992	74.9	59.3	70.1	65.8	60.6	54.8	0.02	16.5	1.0	16.5	0.5	2.0	16.5	1.0	16.5	0.5	16.5	1.0	16.5	0.5	16.5	1.0	16.5	0.5	16.5	1.0	16.5	0.5	16.5	1.0	11
	12	29.916	29.955	77.2	52.8	64.5	58.8	70.5	63.8	0.00	16.5	0.5	16.5	2.0	2.0	16.5	0.5	16.5	2.0	16.5	0.5	16.5	2.0	16.5	0.5	16.5	2.0	16.5	0.5	16.5	2.0	16.5	0.5	12
	13	29.866	29.938	75.2	58.4	67.6	60.3	63.3	58.1	0.11	16.5	1.0	16.5	1.5	2.0	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	13
	14	29.975	30.026	73.8	53.8	64.5	59.9	63.5	59.0	0.00	16.5	0.8	16.5	1.5	2.0	16.5	0.8	16.5	1.5	16.5	0.8	16.5	1.5	16.5	0.8	16.5	1.5	16.5	0.8	16.5	1.5	16.5	0.8	14
	15	30.091	30.097	65.4	53.0	56.6	55.3	57.9	56.9	0.00	16.5	0.8	16.5	0.0	2.0	16.5	0.8	16.5	0.0	16.5	0.8	16.5	0.0	16.5	0.8	16.5	0.0	16.5	0.8	16.5	0.0	16.5	0.8	15
	16	30.070	30.107	59.0	56.1	56.6	56.0	56.6	55.8	0.33	16.5	1.0	16.5	1.0	2.0	16.5	1.0	16.5	1.0	16.5	1.0	16.5	1.0	16.5	1.0	16.5	1.0	16.5	1.0	16.5	1.0	16.5	1.0	16
	17	30.190	30.231	61.6	53.8	57.5	56.1	53.8	52.0	0.00	16.5	1.4	16.5	0.0	2.0	16.5	1.4	16.5	0.0	16.5	1.4	16.5	0.0	16.5	1.4	16.5	0.0	16.5	1.4	16.5	0.0	16.5	1.4	17
	18	30.252	30.225	65.5	47.8	57.0	55.3	57.5	55.9	0.00	16.5	0.5	16.5	1.5	2.0	16.5	0.5	16.5	1.5	16.5	0.5	16.5	1.5	16.5	0.5	16.5	1.5	16.5	0.5	16.5	1.5	16.5	0.5	18
	19	30.230	30.197	60.9	53.3	59.0	56.8	56.8	56.0	0.02	16.5	1.5	16.5	2.0	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	19
	20	30.164	30.160	60.5	56.3	59.2	58.3	58.6	57.9	0.04	16.5	1.0	16.5	0.0	2.0	16.5	1.0	16.5	0.0	16.5	1.0	16.5	0.0	16.5	1.0	16.5	0.0	16.5	1.0	16.5	0.0	16.5	1.0	20
	21	30.158	30.051	68.9	54.1	58.9	58.2	57.6	56.8	0.00	16.5	0.8	16.5	0.0	2.0	16.5	0.8	16.5	0.0	16.5	0.8	16.5	0.0	16.5	0.8	16.5	0.0	16.5	0.8	16.5	0.0	16.5	0.8	21
	22	29.921	29.996	76.0	56.8	59.5	59.0	66.5	63.0	0.05	16.5	1.0	16.5	1.5	2.0	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	22
	23	29.891	30.058	70.4	54.6	60.5	56.8	54.6	49.8	0.00	16.5	1.5	16.5	2.0	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	16.5	2.0	16.5	1.5	23
	24	30.136	30.242	68.2	50.8	59.0	52.8	65.1	50.7	0.00	16.5	1.5	16.5	1.0	2.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	16.5	1.0	16.5	1.5	24
	25	30.202	30.069	64.6	45.9	58.5	52.8	57.5	52.8	0.00	16.5	0.8	16.5	0.5	2.0	16.5	0.8	16.5	0.5	16.5	0.8	16.5	0.5	16.5	0.8	16.5	0.5	16.5	0.8	16.5	0.5	16.5	0.8	25
	26	29.922	29.585	70.8	52.8	58.0	56.3	63.5	59.8	0.02	16.5	0.0	16.5	2.5	2.0	16.5	0.0	16.5	2.5	16.5	0.0	16.5	2.5	16.5	0.0	16.5	2.5	16.5	0.0	16.5	2.5	16.5	0.0	26
	27	29.522	29.453	64.9	50.4	62.0	55.5	50.4	48.8	0.13	16.5	1.0	16.5	2.5	2.0	16.5	1.0	16.5	2.5	16.5	1.0	16.5	2.5	16.5	1.0	16.5	2.5	16.5	1.0	16.5	2.5	16.5	1.0	27
	28	29.626	29.765	58.8	48.1	50.4	48.8	49.0	46.3	0.19	16.5	2.0	16.5	2.0	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	28
	29	29.824	29.440	59.7	47.0	51.6	48.5	59.4	56.8	0.02	16.5	2.0	16.5	2.0	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	16.5	2.0	29
	30	29.556	29.263	62.8	53.0	59.5	54.5	53.6	53.3	0.08	16.5	2.5	16.5	2.0	2.0	16.5	2.5	16.5	2.0	16.5	2.5	16.5	2.0	16.5	2.5	16.5	2.0	16.5	2.5	16.5	2.0	16.5	2.5	30
	31	29.969	30.186	63.7	46.8	53.6	47.9	53.1	49.0	0.41	16.5	2.0	16.5	1.4	2.0	16.5	2.0	16.5	1.4	16.5	2.0	16.5	1.4	16.5	2.0	16.5	1.4	16.5	2.0	16.5	1.4	16.5	2.0	31
Sums.		927.106	926.414	2062.9	1619.1	1823.6	1709.6	1792.3	1699.9	3.46																								
Means.																																		
+ Total Corrections for Instrumental Errors.																																</		

NOTATION USED IN GENERAL REMARKS.

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

TABLE FOR ESTIMATING FORCE OF WIND.

Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.
0	Calm	1.5	Light breeze	4	Blowing hard
0.5	Very light air	2	Fresh breeze	5	Blowing a gale
1	Light air	3	Very fresh	6	Violent gale

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2), = 29.907
 "Corrected

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Lath, 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 September 1898

The Hours of Observation are of Greenwich Time.

[illegible]

BAROMETER, "corrected Mean" at 9 A.M., <i>minus the Correction</i> $\frac{+1}{-}$	=	29.980
for Temp. (Col. 2),	=	
"Corrected Mean" of Barometer at 9 P.M., <i>minus the Correction</i> $\frac{+1}{-}$	=	29.994
for Temp. (Col. 4),	=	29.933
Mean at Station, corrected, and at 32°.....	=	54
Correction for height, feet above Mean Sea-level.....	=	
Mean, reduced to 32°, and Sea-level,	=	29.987
Highest Reading, corrected for Index error, on the ^{at 9 p.m.} 4 th ,.....	=	30.376
Lowest Do. Do., ^{at 9 p.m.} on the 27 th ,.....	=	29.538
Difference, or Monthly Range,	=	0.838

S.-R. THERMOMETER , (in shade, etc.), Highest in Month , (corrected for Index Errors), on the 4 th	=	<u>81° 9</u>
Lowest in Month , corrected for Index errors, on the 24 th , & 26 th	=	<u>41° 1</u>
Difference, or Monthly Range ,	=	<u>40° 8</u>
"Corrected Mean " of all the Highest , (Col. 5),	=	<u>64° 7</u>
"Corrected Mean " of all the Lowest , (Col. 6).....	=	<u>51° 7</u>
Difference, or Mean Daily Range ,	=	<u>13° 0</u>
** Calculated Mean Temperature of Month,	=	<u>58° 2</u>
 S.-R. THERMOMETER , Black Bulb in Sun, Highest , (corrected for Index Errors), on the 4 th		
"Corrected Mean ," (Col. 7), of Black Bulb, Max. in Sun ,	=	_____
Lowest at Night , Black Bulb (corrected for Index errors), on the 4 th ,	=	_____
"Corrected Mean ," (Col. 8), of Black Bulb, Min. on grass,	=	_____
Difference of above means or range ("exposed"),	=	_____

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11),	=	57° 1
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12),	=	54 1
‡ Computed Temperature of Dew-Point ,	=	51 4
‡ Do. Elastic Force of Vapour ,	=	0.379
‡ Do. Weight of Vapour in a Cubic Foot of Air ,	=	
‡ Relative Humidity (Saturation = 100),	=	81
RAIN fell on // Days; Amount in Inches,	=	2.33 ✓

WIND.		SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day
A.M.	-	-	4	4	1	2	15	1	3	1.33	
P.M.	-	-	6	4	-	5	10	-	5	1.14	
Mean.	0	0	5	4	1	3	12	1	4	1.24	

MS. 1

Observations made and
Return verified by

(Signed) James Polans & 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 October 1898.
 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 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 (0-10), and Direction.	Amount (0-10), and Species.	Velocity (0-10), and Direction.		Amount (0-10), and Species.	No. 8 inches.	No. 12 inches.		No. 22 inches.	9 A.M.		9 P.M.				
		* No.		No.		No.	No.	No.	No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	No.	No.	Direction.	Force.	Direction.	Force.	9 h. A.M.	Amount (0-10), and Species.	Amount (0-10), and Species.		Amount (0-10), and Species.	inches.	inches.		inches.							
		inches.	°	inches.	°	°	°	°	°	°	°	°																							
	1	30.169		30.228		61.1	52.2			55.6	51.0	58.8	57.0	0.00	W	2.5	W	2.0	15.0	10.5	3.0	3.0										Fine, cloudy; sunny inters. about 1 p.m.	1		
	2	30.256		30.303		63.8	58.1			61.5	59.6	60.9	58.8	0.00	W	1.5	W	1.0	24.0	10.0	Indis	10.5										Cloudy; fine.	2		
	3	30.322		30.350		61.7	54.7			59.4	56.8	54.7	54.0	0.00	W	1.5	Calcu	0	14.0	10.5	3.0	0										Fine, cloudy during day; cloudless at 9 p.m.	3		
	4	30.405		30.408		66.6	46.9			52.1	51.8	54.4	53.0	0.00	Calcu	0	Calcu	0	0	0	0	0										Fine, sunny after 9 a.m.; thick in morning evening.	4		
	5	30.389		30.335		56.7	49.9			51.8	51.7	53.6	52.8	0.00	W	1.0	W	1.5	Indis	10.5	Indis	10.5										Thick F. till 11.30 a.m., then mostly sunny; evening cloudy.	5		
	6	30.252		30.205		58.9	52.6			54.1	52.7	52.6	51.6	0.00	SE	2.5	E	2.5	25.0	5.0	Indis	10.5										Fine, cloudy, with sunny inters. during forenoon.	6		
	7	30.124		30.061		54.0	51.9			52.6	50.5	54.0	50.9	0.00	E	2.5	E	2.0	25.0	5.0	Indis	10.5										Fine, cloudy.	7		
	8	30.036		30.048		60.6	49.6			53.2	49.9	49.6	47.9	0.00	SE	2.0	E	1.5	25.0	5.0	3.0	0										Fine; bright sunshine.	8		
	9	30.017		30.016		60.1	45.1			51.8	49.1	50.6	44.7	1.3	SE	2.0	SE	1.5	25.0	5.0	Indis	10.5											Morg. hazy; day fine, mostly sunny; overcast, r. after 6 p.m.	9	
	10	30.089		30.097		53.2	45.9			49.6	48.8	47.7	46.9	0.74	W	1.0	W	0.5	14.0	2.0	0	0											Morg. & w. hazy; thick in; day fine, sunny at times.	10	
	11	30.103		30.133		54.1	45.3			48.8	48.1	44.6	47.3	0.1	W	1.0	W	1.0	14.0	2.0	Indis	10.5												Cloudy; rather hazy; sunny at intervals; sho. at 1.30 & 3 p.m., again at 9 p.m.	11
	12	30.064		29.999		51.7	42.4			46.7	45.9	48.8	46.9	0.3	W	1.0	Calcu	0	14.0	2.0	Indis	10.5												Cloudy; thick in. at times.	12
	13	29.996		29.903		54.4	43.7			48.3	46.2	49.7	47.9	0.0	E	1.5	E	1.0	25.0	5.0	Indis	10.5												Fine; cloudy, with short inters. of sunshine.	13
	14	29.781		29.671		52.4	44.8			50.8	49.0	49.6	47.8	0.8	E	1.5	E	2.5	25.0	5.0	Indis	10.5												Cloudy; fresh li. sho. aft. 10.10 a.m., and brisk sho. bet. 4 & 5 p.m.	14
	15	29.519		29.437		49.3	47.1			48.3	45.8	47.6	44.0	0.3	SE	3.0	E	3.0	25.0	5.0	3.0	10.5											Cloudy; a few li. sho. & squally after 7 p.m.	15	
	16	29.374		29.314		50.3	44.7			48.6	44.0	46.7	43.1	0.5	SE	3.0	E	3.0	25.0	5.0	3.0	10.5											Cloudy; sunny inters. dur. forenoon; fresh brisk sho. after noon; sq. at times.	16	
	17	29.233		29.220		47.7	44.9			46.7	44.9	45.7	44.8	3.7	E	3.0	E	3.0	25.0	5.0	3.0	10.5												Overcast; r. chiefly; very foggy dur. day, & violent sqs. with h.v. r. at 9 p.m.	17
	18	29.354		29.422		46.7	45.0			45.8	44.8	46.7	45.9	4.6	E	3.0	E	3.0	25.0	5.0	3.0	10.5												Overcast; rain; very squally.	18
	19	29.442		29.674		55.7	45.1			48.6	47.9	52.6	50.3	0.3	W	2.0	E	2.5	15.0	5.0	Indis	10.5												Squally, showers till 7 a.m.; day fine, sunny at times.	19
	20	29.655		29.592		54.7	50.0			51.5	49.6	51.6	44.8	0.0	S	2.5	SE	0.5	35.0	10.5	Indis	10.5												Cloudy; fine.	20
	21	29.528		29.647		59.7	50.8			54.7	52.7	54.4	51.8	0.0	W	1.0	SE	0.5	35.0	10.5	Indis	10.5												Cloudy; thick haze at times.	21
	22	29.372		29.587		64.7	52.9			64.1	58.9	57.0	51.8	1.0	SE	3.0	W	3.5	15.0	7.0	2.0	3-8												Fine, except sho. bet. 10.15 a.m. and 0.30 p.m.; mostly sunny dur. afternoon.	22
	23	29.810		29.950		57.0	50.1			52.6	48.8	50.6	46.9	0.3	W	2.5	W	1.5	0	0	2.0	1.5												Squally, showers early morning; day fine, sunny.	23
	24	29.712		29.564		53.6	44.9			53.6	48.2	44.7	42.0	2.2	W	2.5	W	2.5	25.0	5.0	2.0	2.0												Fine, sunny at times; li. sho. bet. 11 a.m. and 4.45 p.m.	24
	25	29.701		29.569		56.3	43.9			47.3	45.4	55.6	53.2	1.8	W	1.0	W	2.5	25.0	5.0	2.0	2.0												Sq. at times, with sho. prev. night; overcast, li. to mod. rain after 7.45 a.m.	25
	26	29.704		29.755		56.3	49.9			51.6	48.5	51.7	48.8	0.6	W	2.5	W	2.5	25.0	5.0	2.0	2.0												Fine, sunny; sho. between 4.45 and 5.45 p.m.	26
	27	29.826		29.853		54.1	47.8			49.8	46.9	51.2	47.9	0.0	W	2.0	W	2.0	15.0	7.0	0	0												Fine; mostly sunny. - <u>Low</u> - h.v. at 9 p.m.	27
	28	29.808		29.695		51.7	44.9			46.7	45.4	49.6	44.4	1.9	W	1.0	Calcu	0	25.0	5.0	Indis	10.5												Overcast; di. sho. bet. 11.50 a.m. & 1 p.m., & const. r. after 1.45 p.m.	28
	29	29.602		29.438		50.7	46.9			49.5	44.0	48.6	48.2	1.1	W	1.0	SE	0.5	25.0	5.0	1.5	10.5												Cloudy; sho. till about 11 a.m.; thick F. at times.	29
	30	29.033		28.992		50.8	47.6			48.6	48.2	44.6	46.2	6.2	W	2.0	W	1.5	25.0	5.0	1.5	10.5												Overcast; const. r. till 1 p.m., and sho. after 4.30 p.m.	30
	31	29.215		29.594		50.7	43.3			49.5	46.9	43.7	41.1	1.2	W	2.5	W	1.5	15.0	7.0	0	0												Brisk r. between 2 & 3 a.m.; day fine, mostly sunny.	31
	Sums.	223.871		224.010		1716.3	1483.8			1593.8	1527.0	1582.2	1517.7	2.86																					
	Means.																																		
	+ Total Corrections for Instrumental Errors.																																		
	+ Corrections for Diurnal Range.																																		
	"Corrected Means."	29.802		29.807		55.4	47.9			51.4	49.3	51.0	44.0	2.86																					
	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.cn.	cirro-cumulus.	n.	nimbus.		
ci.s.	cirro-stratus.	r.	rain.		
cu.	cumulus.	h.r.	heavy rain.		
cu.s.	cumulo-stratus.	e.h.r.	continued heavy rain.		
d.	dew.	s.	stratus.		
f.	fog.	sc.	scud.		
fr.	frost.	s.	sleet.		
h.fr.	hoar-frost.	s.	snow.		
h.	haze.	so.ha.	solar halo.		
h.d.	heavy dew.	sq.	squall.		
hal.	halo.	sq.	squalls.		
l.	lightning.	t.	thunder.		
li.cl.	light clouds.	t.s.	thunder-storm.		
li.sh.	light showers.	w.	wind.		
lu.co.	lunar corona.	g.	gale of wind.		
lu.ha.	lunar halo.				

TABLE FOR ESTIMATING FORCE OF WIND.					
Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.	Estimated Force, 0-6.	Common Designation.
0	Calm	1.5	Light breeze	4	Blowing hard
0.5	Very light air	2	Fresh breeze	5	Blowing a gale
1	Light air	3	Very fresh	6	Violent gale

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2) = 29.802
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4) = 29.807
 Mean at Station, corrected, and at 32° = 29.749
 Correction for height, feet above Mean Sea-level, = 5.5
 Mean, reduced to 32°, and Sea-level, = 29.804
 Highest Reading, corrected for Index error, on the 4 th, = 30.408
 Lowest Do. Do., at 7 p.m. on the 30 th, = 28.991
 Difference, or Monthly Range, = 1.417

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 4 th, = 66.6
 Lowest in Month, corrected for Index errors, on the 24 th, = 41.9
 Difference, or Monthly Range, = 24.7
 "Corrected Mean" of all the Highest, (Col. 5), = 55.4
 "Corrected Mean" of all the Lowest, (Col. 6), = 47.9
 Difference, or Mean Daily Range, = 7.5
 ** Calculated Mean Temperature of Month, = 51.6
 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), = 51.2
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 49.1
 †† Computed Temperature of Dew-Point, = 46.9
 †† Do. Elastic Force of Vapour, = 0.323
 †† Do. Weight of Vapour in a Cubic Foot of Air, = 0.323
 †† Relative Humidity (Saturation = 100), = 86
 RAIN fell on 19 Days; Amount in Inches, = 2.86

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	5	4	2	4	10	-	1	1.87	
P.M.	1	4	7	4	-	5	6	-	4	1.67	
Mean.	1	4	6	4	1	4	8	0	3	1.77	

3.13 lbs

Observations made and
 Return verified by

(Signed) James Pollock & George Redpath.

INSTRUCTIONS

FOR TAKING METEOROLOGICAL

WITH REMARKS ON THE USE OF INSTRUMENTS.

OBSERVATIONS,

ONE of the chief objects that the SCOTTISH METEOROLOGICAL SOCIETY proposed to itself when the Society was established in 1856, was to secure PRACTICE UNIFORMITY in the system of observation pursued at all its Stations. Uniformity in the observations is absolutely necessary to justify the publication of Monthly Results from different observations, it being found that differences between the Returns from two Stations, so very considerable as to render them quite incomparable, may arise from dissimilarity in the position or shelter of instruments, different hours of observation, or even from the use of differently constructed instruments. It is therefore hoped, that those who kindly furnish Reports to the Society will, by 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 column 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 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 fluctuations of the surface of mercury in the cistern. This is an excellent Barometer for ordinary Observers, inasmuch as it entirely eliminates the error of observation likely to arise in not a few cases in setting the instrument to the zero point of the fixed scale when the light is not good. To show the accuracy with which these Barometers are made, it may be said, 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 not one 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 compensation is effected by means of the surface of the mercury, instead of by a little cylinder. When stem passes freely through the lid and is not of the cistern, the index-line on this lid, and is brought by the adjusting screw, so that the surface of the mercury just meets the ivory frame, the scale is graduated. In taking an observation, this preliminary setting is to 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 below the level of the wet bulb, but in no case under the bulb; the muslin must be of medium fineness, and fastened at the neck of the bulb by the cotton, which also supplies it with water. It must be seen to by the Observer that the muslin is always clean and moist, and the water pure. In frosty weather, observation is a matter of much delicacy, and must be made with great care. The bulb must be moistened by immersion from 15 to 30 minutes before the hour of observation. From the film of ice thus formed evaporation will proceed as from the moist cloth in ordinary circumstances.

In reading the Thermometer great care must be taken to bring the eye exactly opposite the tip of the index or column of mercury. The reading ought to be taken to tenths of a degree, and noted in decimals. Thus the Thermometer will be read—39.9, 40.0, or 40.1; or again, 40.4, 40.5, 40.6, according as it indicates a little under, an exact coincidence with, or a little over 40°, or 40.5, respectively. So also 40.1, and 40.3, more or less, must be registered 40.2, or 40.3, and 40.4, or 40.8 respectively. In reading Rutherford's Minimum Thermometer, the indication of that end of the index which is next the surface of the spirit is alone noted. On opening the Thermometer Box, the Dry and Wet Bulb Thermometers are to be first, and rapidly, read, inasmuch as they are readily affected by heat from the person of the Observer.

The Hygrometer is read at 9 A.M. and 9 P.M. The Self-Registering Hygrometer is read at 9 P.M. only, as in the case of the other instruments. It is not a matter of indifference when the Self-Registering Thermometers are read since, in winter at least, their occurrence may be at any hour; and it is necessary that the Society's schedules, the indications registered on the day of these observations, should be taken at the same hour, commencing at 9 P.M. on the 24th, and extending till 9 P.M. on the 25th.

No instrument ought to be used for Meteorological purposes till it has been carefully tested by comparison with a standard Thermometer. When such Thermometers are attached to a standard Thermometer, as are not graduated on the stem, but merely on an attached scale, undergo repairs, they are very liable to be moved from their position on the scale, and ought never afterwards to be used without being re-tested. The Self-Registering, especially the Minimum Thermometers, ought frequently to be compared with the dry bulb of the Hygrometer. The freezing-point of each Thermometer, marked by a scratch on the tube, ought to be tested once a year, in snow or melting ice. In selecting instruments, the following points require attention.—The divisions of the vernier of Barometers in reference to their scales, and the perfect freedom of the Barometer from air; the

The Council of the Society recommend that the Self-Registering Thermometers, and the Dry and Wet Bulb Hygrometers, be kept in Stevenson's Louvre-boarded Box for protection 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, and the 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 oscillates incessantly, the mean 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 changes in the direction of the wind; and during storms, extra observations at every hour of Greenwich time. Such a system of simultaneous observation, pursued at different Stations, is likely to give highly valuable and important results, particularly in connection with the system of thickly-placed Stations over a limited district round Edinburgh called STORM STATIONS, in the course of being established by the Society for the systematic investigation of the relation of the force of the wind to BAROMETRIC PRESSURE, and other points connected with storms.

The Council would recommend the Hemispherical Cup Anemometer, a self-registering instrument which shows the amount of Wind that passes it per day; from which 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. Ballgall, the Society's Observer at Ballinac, 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 anemometered situation for observation, and partly from the inherent nature of the instruments used. The Rain Gauge should be placed on a slope or terrace, but on a level piece of ground, in an open situation as the Observer can see for it. As it is often difficult to obtain a position as free and unobstructed by surrounding objects as is desirable, trees, buildings, or other obstructions of least as five feet from the 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 rain 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 fixed to a stem projecting above the rim of the gauge, so that the float rises 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 Returns 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 must be measured in some open place where no drift is observed, and registered in addition to, and as a check upon, the indications of the Rain Gauge. For wind, rain, and snow, as indicated in every column, the Observer cannot be too careful to register 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; when the sky overhead 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, 9 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 $\frac{2}{4}$ st. 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 low Clouds of the stratus kind. Remarks of the more exact nomenclature assist materially in the development of more exact nomenclature of Clouds as well as throw light on the electrical, and other of the more obscure phenomena of Meteorology, which objects in the sun's rays cast shadows, should be entered in the proper column.

As the germination and growth of crops and plants generally depend greatly on the temperature of the soil—its amount and constancy—the Council recommend that Observations in this interesting department be made at 9 A.M., by Thermometers permanently fixed in the soil, their bulbs being sunk to depths of 3, 12, and 23 inches, and the stems above ground protected from the sun's rays, and fitted with sloping tin collars, to prevent rain-water being conveyed to the bulbs by the stems or wooden frames. A knowledge of the Temperature of the Sea is not only in itself, but in its relations to that of our island, a most important branch of Meteorology. The Council therefore recommend that 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 influenced as possible by currents sweeping along the coast, and thus acquiring the temperature of the land, either greatly heated by the sun or cooled by nocturnal radiation. At or near the time of high

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, and the 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 oscillates incessantly, the mean 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 changes in the direction of the wind; and during storms, extra observations at every hour of Greenwich time. Such a system of simultaneous observation, pursued at different Stations, is likely to give highly valuable and important results, particularly in connection with the system of thickly-placed Stations over a limited district round Edinburgh called STORM STATIONS, in the course of being established by the Society for the systematic investigation of the relation of the force of the wind to BAROMETRIC PRESSURE, and other points connected with storms.

The Council would recommend the Hemispherical Cup Anemometer, a self-registering instrument which shows the amount of Wind that passes it per day; from which 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. Ballgall, the Society's Observer at Ballinac, 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 anemometered situation for observation, and partly from the inherent nature of the instruments used. The Rain Gauge should be placed on a slope or terrace, but on a level piece of ground, in an open situation as the Observer can see for it. As it is often difficult to obtain a position as free and unobstructed by surrounding objects as is desirable, trees, buildings, or other obstructions of least as five feet from the 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 rain 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 fixed to a stem projecting above the rim of the gauge, so that the float rises 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 Returns 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 must be measured in some open place where no drift is observed, and registered in addition to, and as a check upon, the indications of the Rain Gauge. For wind, rain, and snow, as indicated in every column, the Observer cannot be too careful to register 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; when the sky overhead 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, 9 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 $\frac{2}{4}$ st. 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 low Clouds of the stratus kind. Remarks of the more exact nomenclature assist materially in the development of more exact nomenclature of Clouds as well as throw light on the electrical, and other of the more obscure phenomena of Meteorology, which objects in the sun's rays cast shadows, should be entered in the proper column.

As the germination and growth of crops and plants generally depend greatly on the temperature of the soil—its amount and constancy—the Council recommend that Observations in this interesting department be made at 9 A.M., by Thermometers permanently fixed in the soil, their bulbs being sunk to depths of 3, 12, and 23 inches, and the stems above ground protected from the sun's rays, and fitted with sloping tin collars, to prevent rain-water being conveyed to the bulbs by the stems or wooden frames. A knowledge of the Temperature of the Sea is not only in itself, but in its relations to that of our island, a most important branch of Meteorology. The Council therefore recommend that 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 influenced as possible by currents sweeping along the coast, and thus acquiring the temperature of the land, either greatly heated by the sun or cooled by nocturnal radiation. At or near the time of high

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, and the 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 oscillates incessantly, the mean 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 changes in the direction of the wind; and during storms, extra observations at every hour of Greenwich time. Such a system of simultaneous observation, pursued at different Stations, is likely to give highly valuable and important results, particularly in connection with the system of thickly-placed Stations over a limited district round Edinburgh called STORM STATIONS, in the course of being established by the Society for the systematic investigation of the relation of the force of the wind to BAROMETRIC PRESSURE, and other points connected with storms.

The Council would recommend the Hemispherical Cup Anemometer, a self-registering instrument which shows the amount of Wind that passes it per day; from which 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. Ballgall, the Society's Observer at Ballinac, 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 anemometered situation for observation, and partly from the inherent nature of the instruments used. The Rain Gauge should be placed on a slope or terrace, but on a level piece of ground, in an open situation as the Observer can see for it. As it is often difficult to obtain a position as free and unobstructed by surrounding objects as is desirable, trees, buildings, or other obstructions of least as five feet from the 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 rain 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 fixed to a stem projecting above the rim of the gauge, so that the float rises 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 Returns 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 must be measured in some open place where no drift is observed, and registered in addition to, and as a check upon, the indications of the Rain Gauge. For wind, rain, and snow, as indicated in every column, the Observer cannot be too careful to register observations only; and nothing that partakes of the nature of deduction or inference.

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, noting 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 Peterhead and Liverpool. The Temperature of the water at the bottom of Wells ought, when practicable, to be taken, both the depth of the temperature well and of the water being noted. Mention what Test-Papers are used, Schönbein's or Moffat's, etc. The Paper is affixed by a pin to a board in the Thermometer Box, and the indications registered at 9 A.M. and 9 P.M. It is desired that these indications be registered in connection with the force and direction of the wind at the time of observation, in the following manner:—thus 3 s.w., as an Ozome entry in the schedule will indicate that the Ozome paper is tinted as 3 on the scale 0—3 is 4, or blowing fresh.

Too much importance cannot be attached to the electric condition of the atmosphere in connection with terrestrial Electricity, magnetism, barometrical, thermometrical, and meteorological phenomena generally. A proper Electrometer is, in truth, necessary to every complete meteorological observatory. 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 every advantage of, and a list of such as are in general use is given at the foot of the column. Besides special and extraordinary Observations, great prominence ought to be given in this column to Prevalent Diseases, differences in character, colour, velocity, and direction between the Lower and Upper Strata of clouds, the Colour of the Sky, etc. Remarks ought to be made on the occurrence of Meteors, Auroræ Boreales, remarkable depressions, deviations, 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 uncoupled, or ruled off for the purpose, from the column of 'Remarks.'

Observations in Seasons, possess not only great scientific value, but connection with are of considerable importance in connection with the periods of 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 year after year, on a selected piece of ground, or on the Annual Table, published yearly in the Society's Journal, will indicate the species, plants, and animals to which special attention is more particularly directed.

The Council recommend Observers, before purchasing new instruments, and in retaining 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. A. B. (By Order)

EDINBURGH, December 1851.

FOREST TREES.	PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.
Alder,	Barley,	Apple,	Bourtree or Elder,	Barberry,
Beech,	Beans,	Black Currant,	Broom,	Hawthorn,
Birch,	Beetroot,	Cherry,	Hazel,	Holly,
Elm,	Butter Beans,	Corn,	Gooseberry,	Plum,
Larch,	Cabbages,	Cornel,	Laburnum,	Pear,
Lime,	Cauliflowers,	Currant,	Medeolus,	Red Flowering Currant,
Oak,	Chickens,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Sycamore or Plane,	Cocks,	Currant,	Myrtle,	Whin,

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,
Larch,	Butter Beans,	Cornel,	Medeolus,	Red Flowering Currant,
Lime,	Cabbages,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Oak,	Chickens,	Currant,	Myrtle,	Whin,
Sycamore or Plane,	Cocks,	Currant,	Currant,	

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,
Larch,	Butter Beans,	Cornel,	Medeolus,	Red Flowering Currant,
Lime,	Cabbages,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Oak,	Chickens,	Currant,	Myrtle,	Whin,
Sycamore or Plane,	Cocks,	Currant,	Currant,	

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,
Larch,	Butter Beans,	Cornel,	Medeolus,	Red Flowering Currant,
Lime,	Cabbages,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Oak,	Chickens,	Currant,	Myrtle,	Whin,
Sycamore or Plane,	Cocks,	Currant,	Currant,	

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,
Larch,	Butter Beans,	Cornel,	Medeolus,	Red Flowering Currant,
Lime,	Cabbages,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Oak,	Chickens,	Currant,	Myrtle,	Whin,
Sycamore or Plane,	Cocks,	Currant,	Currant,	

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,
Larch,	Butter Beans,	Cornel,	Medeolus,	Red Flowering Currant,
Lime,	Cabbages,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Oak,	Chickens,	Currant,	Myrtle,	Whin,
Sycamore or Plane,	Cocks,	Currant,	Currant,	

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,
Larch,	Butter Beans,	Cornel,	Medeolus,	Red Flowering Currant,
Lime,	Cabbages,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Oak,	Chickens,	Currant,	Myrtle,	Whin,
Sycamore or Plane,	Cocks,	Currant,	Currant,	

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,
Larch,	Butter Beans,	Cornel,	Medeolus,	Red Flowering Currant,
Lime,	Cabbages,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Oak,	Chickens,	Currant,	Myrtle,	Whin,
Sycamore or Plane,	Cocks,	Currant,	Currant,	

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,
Larch,	Butter Beans,	Cornel,	Medeolus,	Red Flowering Currant,
Lime,	Cabbages,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Oak,	Chickens,	Currant,	Myrtle,	Whin,
Sycamore or Plane,	Cocks,	Currant,	Currant,	

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,
Larch,	Butter Beans,	Cornel,	Medeolus,	Red Flowering Currant,
Lime,	Cabbages,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Oak,	Chickens,	Currant,	Myrtle,	Whin,
Sycamore or Plane,	Cocks,	Currant,	Currant,	

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,
Larch,	Butter Beans,	Cornel,	Medeolus,	Red Flowering Currant,
Lime,	Cabbages,	Currant,	Mountain Ash or Rowan,	Rhododendron Ponticum,
Oak,	Chickens,	Currant,	Myrtle,	Whin,
Sycamore or Plane,	Cocks,	Currant,	Currant,	

PLANTS.	FRUIT TREES.	SHRUBS, ETC.	BARBERS, ETC.	FOREST TREES.
Almond,	Apple,	Bourtree or Elder,	Broom,	Hawthorn,
Beech,	Barley,	Black Currant,	Hazel,	Holly,
Birch,	Beans,	Cherry,	Gooseberry,	Plum,
Elm,	Beetroot,	Corn,	Laburnum,	Pear,

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Luth, 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 189 8.

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, 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. 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. 8.						No. 12.	No. 22.
		* 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	29.724		29.600		51.9	42.9			46.7	43.5	51.6	48.0	0.00	lt	3.0	SW	2.3		0	0	2.5	10	10	10	10	10	10	10	10	1		
	2	29.083		29.173		59.7	49.8*			57.7	54.9	50.7	48.8	51	SW	3.4	lt	2.0		India: 10. Spec? India: 10. Spec?											2		
	3	29.322		29.326		51.7	39.8*			43.8	41.0	43.7	41.4	55	SW	2.4	lt	2.5	3.5	2.5	10	10	10	10	10	10	10	10	10	10	3		
	4	29.446		29.430		49.7	41.0			46.5	43.8	46.7	45.0	28	lt	2.4	lt	2.5		2.5	10	10	10	10	10	10	10	10	10	10	4		
	5	29.505		29.713		50.8	43.8*			46.6	44.2	43.8	42.1	06	lt	2.0	lt	1.0		1.0	10	10	10	10	10	10	10	10	10	10	5		
	6	29.922		29.926		52.1	41.4			47.6	44.7	50.7	47.9	00	lt	1.2	lt	2.0		2.0	10	10	10	10	10	10	10	10	10	10	6		
	7	29.892		29.825		52.2	46.6*			47.6	45.1	46.6	44.0	00	SE	1.0	SE	1.0		0	0									7			
	8	29.912		30.136		51.1	43.1			46.6	44.9	43.4	42.8	00	SE	1.0	SE	0.25		0	0										8		
	9	30.255		30.210		44.4	40.9*			42.4	42.2	41.5	41.5	02	Calu	0	Calu	0		India: 10.3 India: 10.3											9		
	10	30.131		30.089		42.7	39.5			40.7	40.7	41.7	41.7	02	Calu	0	Calu	0		India: 10.3 India: 10.3											10		
	11	30.060		29.934		44.2	37.9*			38.4	38.4	43.7	43.4	03	lt	0.5	SE	0.5		India: 10.3 0											11		
	12	29.692		29.589		49.8	40.0			42.8	42.8	49.6	48.8	07	lt	0.25	lt	0.25		India: 10.3 India: 10.3											12		
	13	29.986		30.091		49.6	40.2*			45.0	43.4	43.2	40.0	46	lt	0.5	SW	1.0		India: 10.3 India: 10.3											13		
	14	30.045		30.139		49.7	37.9*			47.4	43.2	48.3	47.0	01	lt	1.5	SW	1.4		India: 10.3 India: 10.3											14		
	15	30.216		30.169		48.3	42.1*			44.2	43.0	43.4	42.4	00	lt	1.0	Calu	0		India: 10.3 India: 10.3											15		
	16	30.096		30.095		55.7	42.9			44.7	43.8	55.5	52.8	03	Calu	0	SW	1.5	2.4	India: 10.3 India: 10.3											16		
	17	30.162		30.295		57.7	52.0*			56.6	53.6	52.7	51.8	00	lt	2.0	Calu	0		India: 10.3 India: 10.3											17		
	18	30.316		30.310		54.6	48.9			52.7	50.8	52.3	49.5	00	lt	1.0	lt	1.0		India: 10.3 India: 10.3											18		
	19	30.342		30.230		52.3	34.8*			40.7	40.1	34.8	34.1	00	lt	0.25	lt	0.25		India: 10.3 India: 10.3											19		
	20	30.036		29.980		44.8	34.2			38.0	37.0	44.8	43.1	00	lt	1.4	lt	1.5	2.3	India: 10.3 India: 10.3											20		
	21	30.058		30.249		44.8	36.7*			39.5	37.5	36.7	32.8	03	lt	1.5	lt	2.0		India: 10.3 India: 10.3											21		
	22	30.256		29.803		36.7	30.0			30.2	27.1	32.7	30.0	00	lt	2.0	SE	2.0		India: 10.3 India: 10.3											22		
	23	29.288		29.164		34.0	29.8			31.7	30.1	38.7	38.0	03	SE	2.5	lt	2.0		India: 10.3 India: 10.3											23		
	24	29.176		29.043		41.0	37.0			39.1	37.8	39.7	39.0	23	SE	2.4	lt	1.5		India: 10.3 India: 10.3											24		
	25	28.971		29.069		46.7	39.5			44.7	43.1	46.7	46.0	42	lt	2.4	lt	1.5		India: 10.3 India: 10.3											25		
	26	29.235		29.220		46.7	40.2*			44.4	40.1	40.6	38.1	54	lt	2.3	lt	2.5		India: 10.3 India: 10.3											26		
	27	29.205		29.402		41.7	39.0			39.7	36.7	40.0	36.9	00	lt	1.5	lt	2.0		India: 10.3 India: 10.3											27		
	28	29.572		29.681		40.0	31.1*			34.7	30.8	31.1	30.6?	08	lt	2.0	lt	1.0		India: 10.3 India: 10.3											28		
	29	29.626		29.536		34.8	33.9			27.8	24.3	34.8	33.9	07	lt	1.0	lt	2.5		India: 10.3 India: 10.3											29		
	30	29.569		29.372		49.9	33.9			40.9	38.7	49.9	47.9	07	lt	1.0	lt	2.5		India: 10.3 India: 10.3											30		
	31																															31	
Sums.		893.099		892.799		1434.3	1180.8			1283.4	1260.0	1318.6	1268.3	3.33		7	5			211	202												
Means.																133	123			7.0	6.7												
+ Total Corrections for Instrumental Errors.																																	
+ Corrections for Diurnal Range.																																	
"Corrected Means."		29.770		29.760		47.8	39.4			42.8	40.9	44.0	42.3	3.33																			
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), = 29.770
"Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 29.760
Mean at Station, corrected, and at 32°, = 29.769
Correction for height, feet above Mean Sea-level, = 56
Mean, reduced to 32°, and Sea-level, = 29.765
Highest Reading, corrected for Index error, on the 19th, = 30.342
Lowest Do. Do. on the 20th, = 28.971
Difference, or Monthly Range, = 1.371

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 20th, = 59.7
Lowest in Month, corrected for Index errors, on the 29th, = 28.9
Difference, or Monthly Range, = 30.8
"Corrected Mean" of all the Highest, (Col. 5), = 47.8
"Corrected Mean" of all the Lowest, (Col. 6), = 39.4
Difference, or Mean Daily Range, = 8.4
** Calculated Mean Temperature of Month, = 43.6
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), = 43.4
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 41.6
Computed Temperature of Dew-Point, = 39.5
Do. Elastic Force of Vapour, = 0.943
Do. Weight of Vapour in a Cubic Foot of Air, = 0.0078
Relative Humidity (Saturation = 100), = 86
RAIN fell on 19 Days; Amount in Inches, = 3.33

WIND.		SUMMARY.											
Direction.	N	NE	E	SE	S	SW	W	NW	Calu or Variable.	Mean Force.	Mean Velocity in miles per day		
A.M.	2	1	5	1	2		15	1	3	1.33			
P.M.	1	1	5	2	4	4	6	2	5	1.23			
Mean.	1	1	5	2	3	2	10	2	4	1.28			

1-64

Observations made and
Return verified by

(Signed) James Polani & George Ridpath.

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 1898.

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.		No. of hours in which it fell.	Direction.	Force.	Direction.	Force.	Velocity (0-6) and Species.	Amount (0-10) and Species.	Velocity (0-6) and Species.	Amount (0-10) and Species.	No. 1 inches.	No. 2 inches.					No. 3 inches.	
		* No.		No.		No.	No.	No.	No.																						
		inches.		inches.																											
	1	29.404	29.285	29.447	29.328	29.447	29.328	29.447	29.328	29.447	29.328	29.447	29.328	0.01	11 30	11 30	11 30	11 30	3 10	10 10	10 10	10 10	10 10				Cloudy; squally at times; drizz. sho. after 4.30 p.m.	1			
	2	29.118	29.401	29.399	29.399	29.399	29.399	29.399	29.399	29.399	29.399	29.399	29.399	0.19	11 20	11 20	11 20	11 20	2 10	10 10	10 10	10 10	10 10				Heavy fog; drizz. sho. after 7.45 a.m.; sunny; very changeable.	2			
	3	29.626	29.383	29.391	29.391	29.391	29.391	29.391	29.391	29.391	29.391	29.391	29.391	0.04	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Cloudy; hazy; sho. between 7 and 8 p.m.	3			
	4	29.445	29.506	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.20	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Cloudy; hazy; sho. between 7 and 8 p.m.	4			
	5	29.488	29.672	29.512	29.512	29.512	29.512	29.512	29.512	29.512	29.512	29.512	29.512	0.21	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Cloudy; heavy fog; drizz. sho. after 7.45 a.m.; sunny; very changeable.	5			
	6	29.612	29.531	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.05	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Cloudy; sho. bet. 5.15 & 5.45 p.m.; cloudless at 9 p.m.	6			
	7	29.446	29.525	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.02	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Mostly sunny; pass. sh. at 10.30 a.m. and a few slight showers afternoon.	7			
	8	29.978	29.710	29.362	29.362	29.362	29.362	29.362	29.362	29.362	29.362	29.362	29.362	0.00	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Fine; mostly sunny; hazy; evening cloudy.	8			
	9	29.313	29.679	29.399	29.399	29.399	29.399	29.399	29.399	29.399	29.399	29.399	29.399	0.08	11 20	11 20	11 20	11 20	2 10	10 10	10 10	10 10	10 10				Squally; with freq. sho. early morning; clear sunny at times; showers.	9			
	10	29.631	30.045	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.08	11 30	11 30	11 30	11 30	2 10	10 10	10 10	10 10	10 10				Strong fog; with sho. bet. 5.30 a.m. and 6 a.m.; day mostly sunny; squally.	10			
	11	30.123	30.156	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 30	11 30	11 30	11 30	2 10	10 10	10 10	10 10	10 10				Fine; mostly cloudy; sunny; in eve. about noon.	11			
	12	29.798	30.170	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.01	11 30	11 30	11 30	11 30	2 10	10 10	10 10	10 10	10 10				Cloudy; with sunny inters.; fog; li. sho. aft. 7.15 a.m.; sq. at times; cloudless at 9 p.m.	12			
	13	30.312	30.175	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 20	11 20	11 20	11 20	2 10	10 10	10 10	10 10	10 10				Fine; mostly cloudy; hazy.	13			
	14	29.795	29.834	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 30	11 30	11 30	11 30	2 10	10 10	10 10	10 10	10 10				Cloudy; drizz. sho. bet. 3 and 6 a.m. - Fair <u>50</u> ha. at noon.	14			
	15	30.063	30.190	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Fine; sunny after 10.30 a.m.; hazy.	15			
	16	29.954	30.086	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 25	11 25	11 25	11 25	2 10	10 10	10 10	10 10	10 10				Cloudy; a few sh. drizz. sho.	16			
	17	30.115	29.886	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.08	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Cloudy; with sunny inters. bet. 11 a.m. and noon; sho. after 3 p.m.	17			
	18	29.800	29.982	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.01	11 30	11 30	11 30	11 30	2 10	10 10	10 10	10 10	10 10				Fine; mostly sunny; Fair <u>60</u> ha. at 6 p.m.	18			
	19	29.844	30.205	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 20	11 20	11 20	11 20	2 10	10 10	10 10	10 10	10 10				Fine sunny.	19			
	20	30.382	30.291	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Cloudy; thick li. at times; drizz. sho. after 2 p.m.	20			
	21	30.398	30.351	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 10	11 10	11 10	11 10	2 10	10 10	10 10	10 10	10 10				Cloudy; hazy.	21			
	22	30.392	30.187	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Fine; cloudy; short inters. of sunshine at noon. - Fair <u>60</u> ha. at 9 p.m.	22			
	23	30.092	29.996	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 30	11 30	11 30	11 30	2 10	10 10	10 10	10 10	10 10				Cloudy; very squally. - Fair <u>60</u> ha. at 8.50 p.m.	23			
	24	30.024	30.165	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.01	11 20	11 20	11 20	11 20	2 10	10 10	10 10	10 10	10 10				Cloudy; a few li. drizz. sho.	24			
	25	29.963	29.787	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.07	11 30	11 30	11 30	11 30	2 10	10 10	10 10	10 10	10 10				Cloudy; short sunny inters. dur. forenoon; li. sho. after 1 p.m.	25			
	26	29.548	29.574	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.04	11 20	11 20	11 20	11 20	2 10	10 10	10 10	10 10	10 10				Sq.; stormy early morning; day sunny at times with pass. sho. bet. 0.30 p.m. - Fair <u>60</u> ha. at 9 p.m.	26			
	27	28.892	28.663	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.13	11 20	11 20	11 20	11 20	2 10	10 10	10 10	10 10	10 10				Changeable; sunny at times; drizz. sho. bet. 7.15 & 8.30 a.m. rat. 0.15 p.m.; stormy sho. after 3 p.m.	27			
	28	29.154	29.407	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.12	11 20	11 20	11 20	11 20	2 10	10 10	10 10	10 10	10 10				Strong fog; till 11 a.m. with ray sho. day fine; mostly cloudy; drizz. sho. at 9 p.m.	28			
	29	29.234	29.415	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.05	11 20	11 20	11 20	11 20	2 10	10 10	10 10	10 10	10 10				Cloudy; li. sho. between 4 and 5 p.m.	29			
	30	29.798	29.407	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 15	11 15	11 15	11 15	2 10	10 10	10 10	10 10	10 10				Fine sunny; rather hazy.	30			
	31	29.432	29.268	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	29.447	0.00	11 30	11 30	11 30	11 30	2 10	10 10	10 10	10 10	10 10				Cloudy; a few very slight sho.	31			
	Sums.	1515.13	1417.13	1526.61	1427.61	1526.61	1427.61	1526.61	1427.61	1526.61	1427.61	1526.61	1427.61	1.40	6.5	6.5	6.5	6.5	2.13	1.69	2.13	1.69	2.13								
	Means.																														
	+ Total Corrections for Instrumental Errors.																														
	+ Corrections for Diurnal Range.																														
	"Corrected Means."	29.744	29.789	29.744	29.789	29.744	29.789	29.744	29.78																						

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2) = 29.744
"Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4) = 29.789
Mean at Station, corrected, and at 32° = 29.710
Correction for height, feet above Mean Sea-Level, = 0.05
Mean, reduced to 32°, and Sea-Level, = 29.766
Highest Reading, corrected for Index error, on the 21st, = 30.398
Lowest Do. Do. at 7.30 p.m. on the 27th, = 28.663
Difference, or Monthly Range, = 1.735

S-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 5th, = 58.7
Lowest in Month, corrected for Index errors, on the 31st, = 28.4
Difference, or Monthly Range, = 30.3
"Corrected Mean" of all the Highest, (Col. 5), = 49.2
"Corrected Mean" of all the Lowest, (Col. 6), = 41.2
Difference, or Mean Daily Range, = 8.0
* Calculated Mean Temperature of Month, = 45.2
S-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 5th, = 58.7
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 49.2
Lowest at Night, Black Bulb (corrected for Index errors), on the 31st, = 28.4
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 41.2
Difference of above means or range ("exposed"), = 8.0

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 45.0
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 42.4
Computed Temperature of Dew-Point, = 38.0
Do. Elastic Force of Vap

