

# Barometric Observations made at Leith during January 1886.

BAROMETER CORRECTED AND REDUCED TO 32° AND SEA-LEVEL.

Universal Time.								Extra Observations.				Universal Time.		Extra Observations.	
Date.	7 hr.	8 hr.	9 hr.		19 hr.	20 hr.	21 hr.		Date.	Hour.	Inches.		Date.	Hour.	Inches.
1886.															
Jan. 1	29.698	29.709	29.721		29.522	29.540	29.546		7	13.0	29.802		18	11.0	28.983
2	673	694	711		849	863	868		"	16.0	29.672		"	16.0	29.033
3	619	578	517		316	332	349		"	22.0	29.261		19	12.10	29.339
4	398	394	413		266	256	258		"	23.0	29.257		"	17.0	29.252
5	140	127	151		29.561	29.579	29.609		8	11.0	29.440		23	16.0	29.658
6	29.765	29.797	794		30.046	30.056	30.063		"	16.0	29.528		30	11.0	29.297
7	30.076	30.002	998		29.407	29.356	29.330		12	14.0	29.753		"	12.10	29.261
8	29.347	29.363	29.393		29.625	29.637	29.645		"	22.30	29.564		"	14.0	29.183
9	890	922	926		30.066	30.071	30.079		13	3.0	29.241		"	16.0	29.111
10	974	958	955		29.718	29.706	29.695		"	5.0	29.110		"	17.0	29.094
11	29.745	768	788		30.092	30.128	30.148		"	6.0	29.101		"	18.0	29.097
12	30.038	990	969		29.684	29.686	29.670		"	10.0	29.194		31	8.15	28.877
13	29.161	168	179		528	596	635		"	11.0	29.216		"	10.0	28.866
14	959	968	935		643	583	563		"	12.10	29.209		"	11.0	28.867
15	328	326	349		235	238	241		"	14.0	29.241		"	12.40	28.871
16	290	296	307		018	009	009		"	16.0	29.299		"	13.0	28.865
17	056	054	046		28.934	28.931	28.931		"	18.0	29.452		"	14.0	28.883
18	28.920	28.949	28.961		29.084	29.100	29.100		14	14.0	29.809		"	18.0	28.970
19	29.279	29.313	29.320		253	273	307		"	17.0	29.730		"	22.30	28.951
20	596	626	629		719	720	720		"	22.0	29.218				
21	667	677	691		677	681	683		16	11.0	29.298				
22	657	676	699		819	817	821		"	12.10	29.289				
23	742	738	740		685	675	677		"	15.0	29.165				
24	612	598	598		541	539	547		"	16.0	29.107				
25	584	584	591		550	559	571		"	17.0	29.062				
26	607	621	627		658	658	658		"	18.0	29.017				
27	815	835	843		927	930	930		"	22.0	28.998				
28	818	815	814		708	694	682		17	0.15	28.997				
29	496	488	483		383	392	407		"	2.0	28.894				
30	355	343	336		107	100	091		"	3.0	28.944				
31	28.886	28.885	28.865		28.973	28.970	28.984		"	11.0	29.052				
Means	29.553	29.557	29.560		29.535	29.538	29.542		"	14.0	28.982				
									"	16.0	28.956				
									"	18.0	28.935				
									"	22.0	28.917				
									18	0.0	28.935				
									"	6.0	28.911				

George Redpath.

George Redpath.

## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *January*, 18*86*; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✱, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked ✱, with a Fortin Standard.

Days of Month.	BAROMETER, Corrected and Reduced to 32° and Sea Level.		SELF- REGISTERING THERMO- METERS, In Shade 4 feet above Grass.		HYGROMETER. Kew No. 33,647.8.				WIND.				RAIN. Amount in inches.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.
	9 h.	20 h. 45 m.			9 h.		21 h.		9 h.		21 h.			9 h.		21 h.				
	Inches.	Inches.	Max. Kew No.	Min. Kew No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction	Force, 0—6.	Direction	Force, 0—6.		Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.	Amount, (0—10), and Species.			
	22,241	22,218																		
1	29.721	29.546	52.2	49.7	51.0	49.2	51.1	49.1	W	3-35	W	4-5	0.04	3.5 W	10 Cum	4-5 W	6 sc. & n.	Cloudy; heavy sqs. at times; sho. after 15h.	1	
2	29.711	29.868	51.1	39.8	43.4	40.2	40.0	37.4	W	3-0	W	2-0	.00	2.5 W	2 Cum	0	0	Fine, sunny at times; li. sho. at 11h. and 14h.	2	
3*	29.517	29.349	52.0	39.7	47.4	44.1	42.2	39.2	SW	2-5	SW	4-5	.17	2.0 WSW	10 Cum	n. d.	4 thin ct.	Squally, cloudy; brisk r. after 10.5h. with d. at 11.5h. fine at 12h.	3	
4	29.413	29.258	42.2	33.9	36.5	35.5	34.9	33.0	W	2-0	W	2-5	.20	2.5 WSW	7 Scud.	n. d.	8 Cum	Very squally; night; day with fog; heavy sho. of r. sl. & n. with	4	
5	29.151	29.609	39.0	32.4	35.4	33.9	32.7	28.9	W	2-5	W	2-5	.05	2.5 W	8 Cum	0	0	do do.	5	
6	29.794	30.063	34.0	27.9	31.7	29.2	27.9	29.2	W	2-0	W	2-0	.00	0	0	0	0	Fine, sunny; nearly cloudless.	6	
7	29.798	29.330	38.0	23.0	29.7	29.2	38.0	36.1	W	2-5	SW	4-5	.02	0	0	n. d.	10 Cum	Mostly fine; aqly aft. 15h. and over sho. aft. 17h.	7	
8	29.393	29.645	38.8	29.9	32.1	31.4	31.0	29.2	W	3-0	W	2-5	.06	0	0	n. d.	4 Cum	Fine, sunny; almost cloudless.	8	
9	29.926	30.079	35.3	30.1	32.5	28.4	31.9	29.0	W	2-5	W	1-5	.00	0	0	n. d.	7 Cum	Fine; cloudy after 12h.; evening hazy.	9	
10*	29.955	29.695	35.9	27.0	29.9	28.0	35.0	35.0	SE	0-5	Calm	0	.19	n. d.	10 Cum	n. d.	10 Cum	Overcast; s. from 8.2h. till 15.5h. & drizz. r. after 16h.; thick h.	10	
11	29.788	30.148	42.6	33.1	41.3	38.0	35.9	32.0	W	2-25	W	2-5	.29	2.5 W	2 Cum	2.5 W	6 loose ct.	Overcast; rain during previous night; day fine, sunny.	11	
12	29.969	29.670	45.0	31.7	38.7	36.2	44.0	42.2	W	2-5	SW	2-5	.01	2.5 W	10 Cum	n. d.	7 Cum	Cloudy; sho. during afternoon.	12	
13	29.179	29.635	46.1	37.2	39.0	36.2	37.9	34.1	W	2-0	W	3-35	.20	1.5 W	10 Cum	n. d.	10 Cum	Therm. read at 8h. 15m. } Very squally with heavy sho. till about 5h.; day fine, sunny.	13	
14	29.935	29.563	44.3	32.8	33.0	30.0	44.1	42.1	W	1-0	W	4-45	.00	0	0	3.5 W	2 Cum	Fine, hazy; evening squally.	14	
15	29.349	29.241	48.5	33.0	39.9	38.2	34.8	33.3	W	3-0	W	2-5	.21	3 W	10 Cum	2 W	10 Cum	Cogwheel at 15h. 10 m. with T. L. at 15.20.	15	
16	29.307	29.009	37.9	32.7	34.2	32.0	36.0	33.2	W	2-25	W	3-0	.11	0	0	2 W	10 Cum	Strong sqs. with heavy r. at 3h. & 7h.; day with showers; violent h. & s.	16	
17*	29.046	28.931	36.0	30.8	33.9	31.5	31.9	30.9	W	2-5	SW	1-5	.25	2 W	10 Cum	10 W	10 Cum	Moody cloudy; li. o. sho. between 13h. & 14h. & r. & d. till 16h. & 17h.	17	
18	28.961	29.100	31.9	23.4	27.8	27.0	23.4	22.3	W	1-5	W	0-5	.01	2 W	2 Cum	0	0	Evening and between 14h. and 16h.	18	
19	29.320	29.307	33.0	17.6	24.4	24.4	24.4	24.4	W	1-0	E	1-0	.05	0	0	2.5 E	10 Cum	Sqly from 2h. till 6h. with T. L. at 2.5h.; heavy s. from 10.10 till	19	
20	29.629	29.720	37.8	21.0	29.4	29.4	36.9	35.9	Calm	0	E	2-25	.06	n. d.	10 Cum	n. d.	10 Cum	Fine; sunny at times; rather hazy.	20	
21	29.691	29.683	39.0	34.9	36.2	35.3	36.0	35.0	W	2-5	W	2-25	.12	2.5 W	10 Cum	n. d.	10 Cum	Cloudy; dense. till 9h. & 10h.; h. & s. sho. during day & n. at 21h.	21	
22	29.699	29.821	37.6	33.9	35.6	35.0	36.2	33.9	E	2-0	W	1-5	.09	2 E	7 Cum	n. d.	10 Cum	Cloudy; with r. sho. at times; li. h. sho. at 4h. & 5h. & 10h.	22	
23	29.740	29.677	38.0	33.6	36.9	36.0	36.6	35.2	W	2-5	W	2-25	.29	2.5 W	10 Cum	n. d.	10 Cum	Brisk sho. till 7.5h. then fine; sunny at times.	23	
24*	29.598	29.547	38.0	31.5	36.0	34.1	31.7	30.3	E	2-25	W	1-5	.27	2.5 E	10 Cum	n. d.	2 Cum	Cloudy; brisk r. & s. sho.; heavy h. sho. at 2h. & 3h. & 10h.	24	
25	29.591	29.571	37.8	29.0	34.2	33.2	36.7	35.9	E	2-25	E	3-5	.07	2.5 E	10 Cum	n. d.	10 Cum	Overcast; s. sl. and r. sho.	25	
26	29.627	29.658	38.4	35.9	38.1	37.2	36.9	36.1	E	3-0	W	3-4	.47	4.0 E	10 Cum	n. d.	10 Cum	Overcast; constant r.; rain becoming after 15h.	26	
27	29.843	29.930	39.3	32.0	32.7	32.0	37.7	36.0	SE	1-5	SE	2-0	.07	1.5 SE	10 Cum	n. d.	10 Cum	Cloudy; li. r. from 11h. till about 14h.	27	
28	29.814	29.682	39.8	35.4	36.1	34.3	36.3	34.4	SE	2-0	E	2-25	.02	2 SE	10 Cum	n. d.	5 Cum	Cloudy; li. sho. after 14h. & 5 m.	28	
29	29.483	29.407	40.0	34.9	39.0	37.0	37.9	36.0	E	2-0	W	2-5	.02	2.5 E	10 Cum	n. d.	10 Cum	Fine, sunny till abt 13h.; s. sho. at 5h. & 13h. & n. sho. aft. 15h.	29	
30	29.336	29.091	40.9	32.0	36.7	33.9	32.6	30.3	SW	2-0	W	2-3	.02	2.0 W	6 Cum	0	0	Violent s. sq. from 7.55 till 8.5; day fine; sunny aft. 10h.; brisk	30	
31	28.865	28.984	35.0	29.8	34.1	34.1	34.7	34.7	W	2-5	W	2-25	.16	2.5 W	3 Cum	n. d.	7 Cum	5. chance at 20h. 55 m.	31	
Sums.	96.349	95.817	1245.4	989.6	1100.8	1078.8	1116.6	1036.8	65.0	81.5	81.5	81.5	3.62	201	208					
"Corrected Means."	29.560	29.542	40.2	31.9	36.6	34.9	35.4	34.7	2.10	2.66	2.66	2.66	3.62	6.5	6.7					
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			

BAROMETER, "corrected Mean" = 29.560  
at 9 h."Corrected Mean" at 20 h. 45 m. = 29.542  
Corr for height 20 ft = 29.551  
Mean, reduced to 32°, and Sea-level, = 29.551Highest corrected Reading at 20h. 45m. = 30.148  
Universal Time, on the 11th.Lowest corrected Reading at 4h. 13h. = 28.865  
Universal Time, on the 31st.

Difference, or Monthly Range, = 1.283

## S. - R. THERMOMETERS

(in shade, &c.) = 52.2  
Highest in Month (corrected for Index Errors) on the 1st.

Lowest in Month, (corrected for Index Errors), on the 19th = 17.6

Difference, or Monthly Range, = 34.6

"Corrected Mean" of all the Highest, (Col. 3), = 40.2

"Corrected Mean" of all the Lowest, (Col. 4), = 31.9

Difference, or Mean Daily Range, = 38.3

Calculated Mean Temperature of Month, = 36.0

## HYGROMETER, "Corrected"

Mean of 9 h. and 21 h. = 35.7  
Reading of Dry Bulb (Cols. 5 and 7), = 36.7"Corrected Mean" of 9 h. and 21 h. = 34.8  
Reading of Wet Bulb (Cols. 6 and 8), = 34.8

Computed Temperature of Dew-Point, = 33.4

Do. Elastic Force of Vapour, = 4.9

Relative Humidity (Saturation = 100), = 43

RAIN fell on 27 Days; Amount, = 3.62 Inches.

WIND.		SUMMARY.						
Description.	N	NE	E	SE	S	SW	W	NW
9 h.	1	1	5	2	2	2	15	2
21 h.	2	3	5	1	1	2	13	3
Mean.	1	2	5	2	1	2	14	3

SUNDAY, January 31, 1886. Moon's age at noon, 25.2 days. Passes meridian, 3h. 22m. Universal Time.									
Barometer Corrected and Reduced to 32° and Sea Level. (Inches.)		Thermometers in shade 4 ft. above grass.		For preceding 12 hours.		Wind (True).		Remarks.	
9 h.	20 h.	Max.	Min.	Max.	Min.	Dir.	Force.	Remarks.	Remarks.
29.560, steady.	29.542, very	51.7	31.9	34.5	29.8	011	WNW, gusty.		
Lower cloud motion from W., rather quick; upper cloud motion from W., moderate, then NW. Weather—Violent rain squall at 3h. day time; sunny after 10h.; break snow showers at 2h. 50m.									
Note.—A violent snow squall of thirteen minutes' duration occurred between 7h. 50m. and 8h. 50m., in which time the amount of snow fell was equal to, when melted, 0.75 inches of rain, or 1.875 in. The corrected readings of the barometer were, at 8h. 28.865, and at 8h. 28.871 inches. The barometer fell to a minimum of 28.865 inches (corrected) at 8h., and the same reading (28.865) was again registered at 12h.									
J. BOLAM, G. REDPATH, Observers.									
h. fr.	hoar-frost.	so. ha.	snow.	h. d.	haze.	sq.	squall.	h. d.	hail.
h. d.	heavy dew.	sq.	squall.	h. d.	hail.	t.	thunder.	h. d.	lightning.
l. cl.	light clouds.	w.	wind.	l. sh.	light showers.	g.	gale of wind.	h. d.	not discernible.
lu. co.	lunar corona.	h. d.	not discernible.	lu. ha.	lunar halo.				

## TABLE FOR ESTIMATING FORCE OF WIND.

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

\* Where an asterisk appears in Columns 3 and 4, the Highest Temperatures for the 24 hours (preceding 21 h.) were registered during the Night, and the Lowest Temperatures during the Day.

† These Hygrometrical Deductions are calculated from Glaisher's Hygrometrical Tables, Sixth Edition.

G. S. Range on the 20th = 16.8

(Signed)

James Bolam, &amp; George Redpath.

Observations made and Return verified by

Leith  
Jan 1883  
E. J.

Barometric Observations made at Leith during February, 1886.

BAROMETER CORRECTED AND REDUCED TO 32° AND SEA-LEVEL.

Date.	7 hr.			19 hr.	20 hr.	20.45 hr.	Unusual Time.	Extra Observations.			Date.	Hour.	Inches.	p.m.
	7 hr.	8 hr.	9 hr.											
1	28.992	29.000	29.024	29.192	29.201	29.207	1	1.0	28.916	*				
2	29.351	29.368	29.380	29.488	29.489	29.485	"	3.0	28.936					
3	29.514	29.546	29.576	29.857	29.891	29.919	"	6.0	28.960					
4	30.165	30.215	30.198	30.346	30.359	30.364	"	11.0	28.994					
5	26.7	24.7	22.2	0.29	0.40	0.36	"	13.0	28.984					
6	13.9	15.7	15.4	2.05	2.26	2.12	"	16.0	29.095					
7	22.4	22.4	21.4	2.85	3.05	3.11								
8	4.54	4.68	4.61	4.98	4.93	4.99								
9	4.51	4.58	4.60	3.88	3.82	3.78								
10	3.40	3.44	3.47	30.308	30.302	30.286								
11	30.149	30.137	30.128	29.904	29.898	29.888								
12	29.817	29.826	29.836	7.39	7.41	7.34								
13	6.74	6.72	6.83	5.68	5.66	5.71								
14	29.486	29.509	29.532	29.788	29.804	29.822								
15	30.014	30.051	30.045	30.148	30.150	30.154								
16	1.23	1.32	1.31	1.01	1.03	0.99								
17	1.00	1.11	1.08	2.26	2.36	2.44								
18	3.22	3.35	3.21	2.80	2.78	2.68								
19	1.37	1.31	1.35	0.80	0.90	0.88								
20	1.00	1.11	1.08	1.33	1.46	1.49								
21	1.79	1.86	1.96	2.53	2.62	2.67								
22	3.04	3.14	3.07	3.68	3.84	3.98								
23	4.43	4.46	4.35	3.57	3.49	3.41								
24	2.74	2.72	2.77	2.41	2.48	2.50								
25	2.43	2.51	2.59	2.69	2.77	2.75								
26	3.06	3.31	3.38	3.29	3.29	3.29								
27	3.08	3.07	3.14	3.46	3.49	3.58								
28	30.372	30.371	30.377	30.263	30.249	30.231								
Means	30.080	30.090	30.093	30.107	30.112	30.113								

George Redpath.

# SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *February* 1886; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✕, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked ✕, with a Fortin Standard.

Days of Month.	BAROMETER. Corrected and Reduced to 32° and Sea Level.		SELF- REGISTERING THERMO- METERS. In Shade 4 feet above Grass.		HYGROMETER. Kew No. 33, 64, 7, & 8.				WIND.				RAIN.  Amount in inches.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.
	9 h.	20 h. 45 m.			9 h.		21 h.		9 h.		21 h.			9 h.		21 h.				
	Inches.	Inches.	Max. Kew No. 22, 24, 1	Min. Kew No. 22, 21, 8	Dry bulb. °	Wet bulb. °	Dry bulb. °	Wet bulb. °	Direction	Force, 0—6.	Direction	Force, 0—6.		Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.	Amount, (0—10), and Species.			
1	29.024	29.207	36.0	29.0	30.8	29.0	33.8	31.0	W	2.0	W	2.4	0.00	2.1 by ft	16i-st.	0	0	Fine; sunny at times.	1	
2	29.380	29.485	41.0	32.9	34.9	32.8	35.0	33.1	W	2.0	W	2.0	.00	0	0	n.d.	5 thin st. & haze.	Fine; mostly sunny; hazy.	2	
3	29.576	29.919	36.2	29.0	30.1	29.8	29.9	28.0	Calm	0	W	1.5	.00	0	0	0	0	Thick, low haze.	3	
4	30.198	30.364	39.0	28.1	30.9	29.4	31.0	28.1	W	1.5	W	1.5	.01	0	0	0	0	** Melted hour frost.	4	
5	30.222	30.036	36.1	22.7	24.3	23.3	31.9	30.0	Variable	0.5	Calm	0	.01	n.d.	10 fog.	n.d.	10 st. & haze.	** Drops from fog.	5	
6	30.154	30.212	36.0	30.0	31.1	30.2	33.3	30.2	SE	1.0	SE to SW	2-2.5	.02	n.d.	10 fog	n.d.	5 fm. bi-st.	Hazy; s. obs. at intro. bet. 6h. & 10h.; day fine, sunny at times.	6	
7*	30.244	30.311	42.6	32.9	36.9	35.0	40.0	38.2	Variable	0.5-1	SW	2-2.5	.00	2.5 W to 3.5 W (see)	10 fm. bi-st. & obs.	n.d.	10 st.	Cloudy; dull; aq. dr. bet. 3h. & 4h. & l. r. obs. about 8h. and 16h.	7	
8	30.461	30.499	48.1	38.9	43.2	42.0	45.9	44.0	W to SW	2.0	W to SW	2.0	.00	2.5 W	10 obs. & haze.	n.d.	10 st.	Fine, cloudy; sunny at times; some haze.	8	
9	30.460	30.378	49.7	42.1	45.3	43.2	45.0	42.1	W to SW	2.0	SW	3.0	.00	2 W to SW	10h. dr. & obs.	3.5 SW	10 st. & obs.	Fine, cloudy; rather hazy.	9	
10	30.347	30.286	46.8	39.1	44.7	42.4	39.1	38.0	W	2.4	SW, var.	0.5	.01	n.d.	10h. & obs. bi-st.	0	0	Temp. falling rapidly at 21h.— Min. thermometer 0° 4' clear.	10	
11	30.128	29.888	46.1	31.0	33.0	32.8	39.9	36.7	W, var.	0.25	SW	2-2.5	.00	2 W to SW	9h. buf.	2 W to SW	8 fm. bi-st.	Clear f. till 8h.; day fine; sunny after 13h.	11	
12	29.836	29.734	47.7	38.1	41.8	39.0	44.3	41.6	S	1.5	SE to S	1-2	.00	1.5 W to 1.5 S	9h. buf.	n.d.	10 fm. bi-st.	Fine; sunny at times.	12	
13	29.683	29.571	49.8	43.9	44.8	42.7	45.0	42.0	S	2.5-3	S	2-3	.01	2.5 to 3.5 SW	5h. buf. & obs.	3.5 SW	10 bi-st.	Fine, except l. obs. between 6h. and 8h.	13	
14*	29.532	29.822	45.0	34.1	35.6	34.9	36.8	34.2	W	2.5-3	W	2.0	.41	3 W to 1.5 (see)	10 min. obs.	n.d.	3 l. obs.	Clear, r. till 9h.; day fine, except thick l. obs. from 12h. till 14h.	14	
15	30.045	30.154	38.7	29.8	33.0	32.0	33.6	32.6	W to var.	1.0	Calm	0	.00	1.5 W	10 buf. & obs.	n.d.	9 faint bi-st.	Fine, hazy; sunny at times.	15	
16	30.131	30.099	37.0	31.9	34.9	34.4	36.0	35.1	SE	0.5	NE	1.5-2	.04	2 E	10 fm. dr. & obs.	2.4 E to NE	10 l. obs.	Dull; l. r. between 9h. and 13h., with s. about 11h.	16	
17	30.108	30.244	37.2	33.9	35.1	34.0	36.0	35.0	W to NE	2.4	W to NE	2-2.5	.05	2 E to NE	6h. w.	2.4 E to NE	10 st. & obs.	Cloudy; r. l. and on obs. after 17h.	17	
18	30.321	30.268	36.9	33.5	35.5	34.6	33.9	33.0	E to NE	2.5	E	2.0	.14	2 E to NE	10h. buf.	2 E to SE	10 st.	Cloudy; r. dr. l. and on obs.	18	
19	30.135	30.088	36.0	30.9	32.0	31.2	30.9	30.1	E	1.5	Calm	0	.09	n.d.	10 n.	1.5 W	9 bi-ov.	Clear, l. s. till 12h., then fine, cloudy.	19	
20	30.108	30.149	37.9	27.4	32.1	30.8	36.5	35.8	SE, var.	1.0	SW, var.	1.0	.03	1.5 W to NE	7h. buf.	n.d.	10 n.	Dull, hazy; l. r. obs. afternoon; clear, moderate r. at 21h.	20	
21*	30.196	30.267	38.8	34.9	36.1	35.7	36.6	36.0	SE, var.	1.0	Variable	0.5	.16	1.5 W to SW	10 n.	n.d.	10 st.	Clear, r. till 9h.; damp, thick haze after 13h.	21	
22	30.307	30.398	38.2	33.9	37.4	37.0	34.9	34.0	W to Ely	0.5	E	2.5	.24	n.d.	10 n.	n.d.	10 n.	Clear; constant r.; hazy; on obs. at 21h.	22	
23	30.435	30.341	37.2	30.1	33.9	31.2	31.5	30.0	SE to E	2.4	SE	2.0	.03	2 E	9h. buf.	n.d.	0.5 st.	Clear, sunny at times; thick s. & l. obs. about 13h.	23	
24	30.277	30.250	36.5	29.4	32.6	31.0	29.6	28.2	E	1.0	Ely	0.5	.00	1.5 E	10 h. w.	0	0	Mostly fine; a few s. obs. of s. and l.	24	
25	30.259	30.275	34.8	27.8	32.3	31.5	32.1	30.2	SE to E	1.5	W to NE	2.0	.11	2 E	10 h. w.	n.d.	3 thin st.	S. and l. obs. till about 11h., then fine.	25	
26	30.338	30.329	35.2	28.0	31.3	29.7	28.0	27.3	W to E	2.0	Ely	0.5	.11	2 E	4 h. w.	n.d.	3 thin st.	S. during previous night; day fine, except s. & l. obs. bet. 15 & 16h.	26	
27	30.314	30.358	36.4	26.8	32.0	30.8	32.9	30.6	SE to E	1.5	SE to E	2.5	.01	2.5 E	9 h. w.	n.d.	10 n.	Mostly fine; a few slight on obs. showers.	27	
28	30.377	30.231	34.6	31.4	32.8	32.0	32.0	32.0	SE	2.4	SE	2.5	.00	2.5 E	10h. buf.	n.d.	10 fall.	Cloudy; very s. obs.	28	
8.12.13 10.15.15 18.10 14.13 9.12 11.10 13.12 10.5																				
Sums.	842.596	843.163	1115.5	901.5	978.4	942.4	985.9	965.1		41.25		47.75	1.48		222		188.5			
"Corrected Means."	30.093	30.113	39.8	32.2	34.9	33.7	35.5	33.9		1.47		1.71	1.48		7.9		6.7			
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			

BAROMETER, "corrected Mean" at 9 h. = 30.093

"Corrected Mean" at 20 h. 45 m. = 30.113

Mean, reduced to 32°, and Sea-level, = 30.103

Highest corrected Reading at 20h. 45m. = 30.499

Lowest corrected Reading at 1h. = 29.024

Difference, or Monthly Range, = 1.475

S. - R. THERMOMETERS (in shade, &c.) Highest in Month (corrected for Index Errors) on the 13th = 49.8

Lowest in Month, (corrected for Index Errors), on the 5th = 22.7

Difference, or Monthly Range, = 27.1

"Corrected Mean" of all the Highest, (Col. 3), = 39.8

"Corrected Mean" of all the Lowest, (Col. 4), = 32.2

Difference, or Mean Daily Range, = 7.6

Calculated Mean Temperature of Month, = 36.0

HYGROMETER, "Corrected Mean" of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), = 35.38

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), = 33.8

†† Computed Temperature of Dew-Point, = 31.54

†† Do. Elastic Force of Vapour, = 0.780

†† Relative Humidity (Saturation = 100), = 86

RAIN fell on 17 Days; Amount, = 1.48 Inches.

WIND.		SUMMARY.					
Description.	N	NE	E	SE	S	SW	W
9 h.	1	2	6	5	2	8	1
21 h.	2	1	5	4	1	5	6
Mean.	1	2	5	5	2	7	1

NOTATION USED IN GENERAL REMARKS.			
a.	denotes aurora.	m.	denotes meteor.
ci.	cirrus.	ms.	meteors.
ci. cu.	cirro-cumulus.	n.	nimbus.
ci. st.	cirro-stratus.	r.	rain.
cu.	cumulus.	h. r.	heavy rain.
cu. l.	cumulus-form.	c. h. r.	continued heavy rain.
cu. st.	cumulo-stratus.	st.	stratus.
d.	dew.	scud.	scud.
f.	fog.	sl.	sleet.
fr.	frost.	s.	snow.
h. fr.	hoar-frost.	so. ha.	solar halo.
h.	haze.	sq.	squall.
h. d.	heavy dew.	sqs.	squalls.
hl.	hail.	t.	thunder.
l.	lightning.	t. s.	thunder storm.
li. cl.	light clouds.	w.	wind.
li. sh.	light showers.	g.	gale of wind.
lu. co.	lunar corona.	n. d.	not discernible.
lu. ha.	lunar halo.		

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

\* Where an asterisk appears in Columns 3 and 4, the Highest Temperatures for the 24 hours (preceding 21 h.) were registered during the Night, and the Lowest Temperatures during the Day.

†† These Hygrometrical Deductions are calculated from Glaisher's Hygrometrical Tables, Sixth Edition.

Observations made and Return verified by

g. 27. Range on the 11th = 15.1

(Signed)

James Bolam & George Redpath.

Leitch  
Feb 1886  
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# Barometric Observations made at Leith during March 1886.

BAROMETER CORRECTED AND REDUCED TO 32° AND SEA-LEVEL.

Date.	5h. 45m.	7h.	8h.	9h.	19h.	20h.	20h. 45m.	Universal Time.	Extra Observations.	Date.	Hour.	p.m.
1886.												
March 1	30.003	29.987	29.979	29.985	29.976	29.905	29.679			26. M.		
2	29.466	460	458	471	474	480	491			1 12.10	29.873	
3	703	729	741	737	816	814	809			" 16.0	29.786	
4	705	687	680	680	619	614	612			" 17.0	29.756	
5	448	440	440	451	29.435	29.453	29.471			" 23.0	29.615	
6	29.657	29.694	29.740	29.760	30.055	30.067	30.081			2 13.0	29.440	
7	30.190	30.195	30.205	30.215	230	225	232			5 23.0	29.495	
8	231	237	243	248	289	297	307			26 12.10	29.488	
9	317	327	340	336	426	430	441			" 13.0	29.463	
10	499	511	526	524	558	555	559			" 16.0	29.383	
11	575	585	589	581	511	513	517			" 18.0	29.307	
12	432	432	442	451	429	432	433			" 19.30	29.277	
13	442	448	454	455	479	481	480			28 22.0	29.616	
14	378	377	373	362	200	202	204			29 16.0	29.371	
15	172	172	171	178	174	171	171			30 11.0	29.520	
16	107	105	095	090	047	054	054			" 12.8	29.436	
17	051	068	074	070	30.062	30.070	30.066			" 13.0	353	
18	30.015	30.020	30.030	30.030	29.954	29.946	29.948			" 14.0	251	
19	29.885	29.883	29.879	29.879	736	736	742			" 16.0	110	
20	728	726	738	741	747	752	760			" 18.0	074	
21	710	725	741	755	859	867	877			" 18.15	054	
22	941	963	956	949	918	922	912			" 18.30	058	
23	872	883	896	891	932	948	948			" 18.45	064	
24	954	960	966	964	810	790	778			" 22.0	253	
25	669	683	689	690	698	717	709			" 23.0	335	
26	562	551	546	544	285	287	311			31 3.0	279	
27	473	484	468	465	407	423	445			" 4.0	233	
28	746	768	782	794	699	687	653			" 5.0	170	
29	403	393	396	389	422	434	441			" 10.0	071	
30	584	606	608	586	054	065	133			" 11.0	074	
(6h.) 31	29.152	29.125	29.113	29.081	29.470	29.498	29.512	897 264		" 12.10	135	
Means.	29.908	29.911	29.915	29.915	29.888	29.891	29.876			" 14.0	228	
	927.070	927.224	927.358	927.352	926.521	926.635	926.776			" 17.0	29.381	

George Redpath.



## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *March* 1886; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✕, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked ✕, with a Fortin Standard.

Days of Month.	BAROMETER, Corrected and Reduced to 32° and Sea Level.		SELF-REGISTERING THERMOMETERS, In Shade 4 feet above Grass.		HYGROMETER. Kew No. ....				WIND.				RAIN.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.	
	9 h.	20 h. 45 m.	Max. Kew No.	Min. Kew No.	9 h.		21 h.		9 h.		21 h.			Amount in inches.	9 h.		21 h.				
					Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force, 0—6.	Direction.	Force, 0—6.			Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.				Amount, (0—10), and Species.
1	29.985	29.679	32.0	28.0	30.9	28.5	28.9	?	E	2.4	E	4.0	Scat.	0.05	2.5 ESE	10 buf.	n.d.	10 n.	Overcast, constant s. after 13h.	1	
2	29.471	29.491	32.9	28.1	30.8	30.2	32.9	32.0	ENE	3.5	NE	3.5	Scat.	.11	4 ENE	10 n.	n.d.	10 full.	Strong sqs; overcast, s. & h. showers.	2	
3	29.737	29.809	38.8	29.8	30.8	28.0	34.1	30.5	W	2.0	W	2.2	00	2.5 ENE	10 buf.	n.d.	10 dt.	Fine; sunny at times; rather hazy.	3		
4	29.680	29.612	40.8	33.1	37.3	35.0	34.0	33.2	W	2.5	calm	0	.07	3 W	7 buf.	n.d.	10 dt.	Fine till 15h, then cloudy; brisk h. & r. sho. till 16h. 17h.	4		
5	29.451	29.471	38.7	30.5	33.6	32.5	31.7	31.0	NE	0.5	NE	3.3	.01	1.5 W	8 bu.	n.d.	10 n.	Dull, hazy; sunny at times; east, s. & h. sho. after 20h.	5		
6	29.760	30.081	34.5	27.1	29.9	28.6	29.9	2	W	3.0	W	1.0	Scat.	.03	3.0 W	16 bi. cu.	n.d.	5 thin st.	S. during previous night; day clear, sunny.	6	
7	30.215	30.232	36.2	22.0	25.0	24.1	25.9	24.1	W, var.	0.5	SE	0.5	00	?	10 bi. cu.	0	0	Fine; morning thick h.; day sunny.	7		
8	30.248	30.307	40.9	24.7	28.4	26.7	29.9	28.0	SE	2.0	SE	0.5	00	1.5 W	16 bi. cu.	0	0	Fine, sunny.	8		
9	30.336	30.441	40.0	25.1	29.2	26.4	30.6	26.8	SE	2.0	E	1.0	00	0	0	0	0	Cloudless; sunny.	9		
10	30.524	30.559	39.7	24.8	31.4	29.2	34.0	31.5	SE	2.0	SE	2.0	00	2.5 S	8 bu.	2.5	6 bu.	Fine; mostly sunny.	10		
11	30.581	30.517	34.9	23.8	29.9	28.0	29.2	27.8	SE	2.0	SE	1.5	00	2.5 Ely	16 bi. cu.	2.5 SE	9.5 bu.	Morning thick h.-f.; day, sunny.	11		
12	30.451	30.433	34.8	29.0	33.7	32.2	32.1	30.8	ENE	2.0	Wly	0.5	00	2.5 SE	10 buf.	n.d.	10 n.	Cloudy; fine; drizzling s. after 20h. 30 m.	12		
13	30.455	30.480	36.1	30.4	33.6	32.2	32.9	31.1	calm	0	E	1.5	Scat.	.01	2 ENE	9 buf.	2 ENE	10 buf.	Cloudy; light snow showers.	13	
14	30.362	30.204	36.0	28.0	32.6	30.8	32.9	30.1	SE	1.4	E, var.	0.5	00	1.5 E	10 buf.	2 E	10 bu.	Cloudy; sunny at times; very slight s. sho.	14		
15	30.178	30.171	38.5	31.1	34.5	33.5	35.0	32.3	E	2.0	E	3.0	.01	2.5 SE	9 bu.	2 E	7 bu., and at 21h, end 3.5 ENE.	Cloudy, with sunny inters.; a few li. s. and hail sho.	15		
16	30.090	30.054	35.0	31.7	33.8	33.2	32.6	32.0	NE	3.4	ENE	3.3	Scat.	.12	4 E	10 n. & s. sqs.	4 E	10 n. & s. sqs., at 21.10, 16 bi. cu. 2.5 E.	Overcast; snow and hail squalls.	16	
17	30.070	30.066	36.0	31.5	32.8	32.2	33.1	32.0	E	2.4	SE	2.5	Scat.	.08	3.5 E	10 n.	?	9.5 bi. cu.	Cloudy; brisk s. sho.; sunny inters. during afternoon.	17	
18	30.030	29.948	36.9	32.4	33.7	32.0	36.9	35.0	SE	2.0	SE	2.2	.01	2.5 SE	10 buf.	2.5 SE	10 bi. cu.	Cloudy; a few slight s. and h. showers.	18		
19	29.879	29.742	46.0	36.3	45.6	43.0	45.7	44.0	SE	2.0	SW	1.2	.01	2.5	glac. hoar-frost.	2.5 SE	10 bu.	Cloudy; li. r. sho. during afternoon.	19		
20	29.741	29.760	49.6	39.4	41.7	41.0	45.9	45.3	Var.	0.5	calm	0	.07	?	10 bi. cu.	2.5 SE	9 buf. & h.	Cloudy, dull and showery; thick h. at 21h.	20		
21	29.755	29.877	57.3	42.8	49.8	48.6	51.6	49.9	W	2.4	W	2.0	.27	2.5 W	10 buf.	2.4 W	10 { 2.5 bi. cu. at 19h. 2.5 SE at 20h. }	Overcast, r. till after 6h.; day cloudy, with sunny inters.; brisks	21		
22	29.949	29.912	52.7	43.7	48.0	46.8	45.9	44.3	W	1.0	SE	1.0	00	1.5 W	9 buf. bi. cu.	n.d.	10 bi. cu.	Fine, cloudy; sunny intervals during afternoon.	22		
23	29.891	29.948	62.2	43.9	52.7	49.9	56.6	55.1	S	2.0	WSE	3.4	.06	2.0 W	8 buf. & bi. cu.	?	9 dt.	Cloudy; hazy; overcast, rain commencing at 21h. 10 m.	23		
24	29.964	29.778	58.2	47.9	51.8	49.4	52.0	49.0	SE	1.5	SE	1.5	.05	1.5 W	10 buf.	n.d.	9 thin st.	Cloudy, showery till aft. 11h, then fine; sunny during afternoon.	24		
25	29.690	29.709	57.9	43.1	54.5	49.7	48.6	45.0	WSE	2.5	SW	3.3	00	3.5 W	8 bu.	n.d.	5 { 2.5 bi. cu. at 19h. 2.5 SE at 20h. }	Fine, sunny.	25		
26	29.544	29.311	54.0	44.7	48.8	45.5	49.1	47.0	SW	2.5	WSE	2.3	.12	3.5 W	8 bu.	n.d.	9 bi. cu.	Cloudy, squally; showers after 16h.	26		
27	29.465	29.445	49.1	40.0	46.8	44.0	42.6	42.0	S	1.5	W	2.0	.55	1.5 SE	10 bi. cu.	n.d.	6 thin st.	Overcast, constant r. from 9h. till about 19h.	27		
28	29.794	29.653	49.9	38.9	43.9	40.0	40.7	36.2	W	2.0	SE	2.3	00	2 W	3 bu.	n.d.	4 bi. cu.	Fine; sunny till noon, then mostly cloudy.	28		
29	29.389	29.441	49.1	37.3	41.0	39.3	38.2	36.1	SW	2.2	W	3.4	.04	2.5 WSE	9 bu.	3 W	4 bi. cu.	Thunders, rain, s. sho. (brisk h. at 12.10) with sunny inters.; squally, with s. sho. till 3h. & 4h.; brisk r. from 11.30 to 13.30; heavy sqs. after 18h. Solar halo at 8.45, and aurora at 21h.	29		
30	29.586	29.133	54.0	34.8	39.3	36.3	42.1	38.2	WSE	3.4	W, m. sqs.	5.0	.11	3.5 WSE	2.5 bi. cu.	n.d.	1 ?	Do. do.	30		
31	29.081	29.512	45.5	34.0	43.7	39.2	36.7	35.0	SW	2.3	W	2.2	.21	3.5 SW	7 bi. cu.	n.d.	8 bi. cu.	Variable; east, brisk r. (with s. & s. at intervals) from 9h. till 13h. & 14h. then fine	31		
Sums.	924.352	926.776	1348.2	1037.9	1179.5	1116.0	1172.5	1053.3		59.5		71.0	1.99		ins.		2.27				
Corrected Means.	29.915	29.896	43.5	33.5	38.0	36.0	38.4			1.92		2.29	1.99		7.7		7.3				
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				

BAROMETER, "corrected Mean" at 9 h. .... = 29.915

"Corrected Mean" at 20 h. 45 m. ... = 29.896

70 ft = 29.877

Mean, reduced to 32°, and Sea-level, = 29.905

Highest corrected Reading at 8h. ... = 30.581

Universal Time, on the ... = 30.581

Lowest corrected Reading at 18h. 15m. ... = 29.081

Universal Time, on the ... = 29.081

1.500

Difference, or Monthly Range, ..... = 1.500

## S. - R. THERMOMETERS

(in shade, &amp;c.)

Highest in Month (corrected for Index Errors) on the 23rd. .... = 62.2

Lowest in Month, (corrected for Index Errors), on the 7th. .... = 22.0

Difference, or Monthly Range, ..... = 40.2

"Corrected Mean" of all the Highest, (Col. 3), ..... = 43.5

"Corrected Mean" of all the Lowest, (Col. 4), ..... = 33.5

Difference, or Mean Daily Range, ..... = 10.0

Calculated Mean Temperature of Month, = 38.5

## HYGROMETER, "Corrected"

Mean of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), ..... = 38.2

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), ..... = 36.2

Computed Temperature of Dew-Point, = 33.5

Do. Elastic Force of Vapour, ... = 1.92

Relative Humidity (Saturation = 100), = 22.2

RAIN fell on 20 Days; Amount, ..... = 1.99 Inches.

Description.	SUMMARY.											Mean Force.	Mean Velocity in miles per day.
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.		
9 h.	1	1	7	4	3	8	1	2	1.92				
21 h.	2	7	6	2	2	8	2	2	2.29				
Mean.	0	2	7	5	3	2	8	2	2.10	4.41			

## NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	m.	denotes meteor.
ci.	cirrus.	ms.	meteors.
ci-cu.	cirro-cumulus.	n.	nimbus.
ci-st.	cirro-stratus.	r.	rain.
cu.	cumulus.	h. r.	heavy rain.
cu-f.	cumulo-form.	c. h. r.	continued heavy rain.
cu-st.	cumulo-stratus.	st.	stratus.
d.	dew.	scud.	scud.
f.	fog.	sl.	sleet.
fr.	frost.	s.	snow.
h-fr.	hoar-frost.	so. ha.	solar halo.
h. d.	heavy dew.	sq.	squall.
hl.	hail.	sqs.	squalls.
l.	lightning.	t.	thunder.
li. cl.	light clouds.	t. s.	thunder storm.
li. sh.	light showers.	w.	wind.
lu. co.	lunar corona.	g.	gale of wind.
lu. ha.	lunar halo.	n. d.	not discernible.

## TABLE FOR ESTIMATING FORCE OF WIND.

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

\* Where an asterisk appears in Columns 3 and 4, the Highest Temperatures for the 24 hours (preceding 21 h.) were registered during the Night, and the Lowest Temperatures during the Day.

† These Hygrometrical Deductions are calculated from Glaisher's Hygrometrical Tables, Sixth Edition.

Observations made and Return verified by

(Signed)

James Pollock, George Redpath.

Lenth  
Mar 1888  
2/

## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *April* 18*86*; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked \*, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked \*, with a Fortin Standard.

Days of Month.	BAROMETER, Corrected and Reduced to 32° and Sea Level.		SELF- REGISTERING THERMO- METERS, In Shade 4 feet above Grass.		HYGROMETER. Kew No. 33,647 & 8.				WIND.				RAIN. Amount in inches.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.
	9 h.	20 h. 45 m.	Max. Kew No. 22,241	Min. Kew No. 22,211	9 h.		21 h.		9 h.		21 h.			9 h.		21 h.				
	Inches.	Inches.			Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction	Force, 0—6.	Direction	Force, 0—6.		Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.	Amount, (0—10), and Species.			
1	29.712	29.764	51.4	35.7	39.9	36.0	46.0	41.8	W	3.5	SW	2-3	0.00	3.5 W. by S	2.6 W.	n.d.	10 st.	• Fine, sunny; cloudy after 17h.	1	
2	29.482	29.468	53.4	40.2	53.0	46.8	40.5	39.0	SW	3.0	W	2-2.5	.08	3.5 SW	8.6 W. + } 5.0 W. + }	n.d.	10 n.	• Squally; cloudy with sunny inters.; e. cast. n. aft. 18h.	2	
3	29.572	29.538	48.3	36.7	42.9	37.2	43.8	40.0	SW	3.0	SW	3-4	.02	3.5 W	3.6 W.	3.5 W. (2)	9.6 W. + 10.	• Fine, sunny; evening squally.	3	
4*	29.402	29.317	53.0	40.6	46.9	42.1	43.0	39.0	W	3.0	W	4-5	.21	3.5 W	6.6 W. + 10.	n.d.	10.5 W. + 10.	• Very squally; heavy sh. at 15h. and 18h. 30m.	4	
5	29.471	29.394	50.8	39.3	42.4	40.3	45.1	42.1	W	3-4	W	2.5-3.5	.14	3 W	10.5 W. + 10.	n.d.	1 st.	• Squally at times; sh. at times. till 11h. and after 16h.	5	
6	29.416	29.662	46.9	37.4	43.1	39.2	37.9	35.0	W	3.0	W	2-3	.06	3 W	3.6 W.	0	0	• Fine, except brisk h. r. sh. at noon, till at 16h. 10m.	6	
7	29.681	29.037	48.2	36.1	41.0	38.0	46.2	41.7	W	2.5	SW	3-4	.04	2.5 W	7.6 W. + } 7.6 W. + }	3.5 W	7.6 W. + } 7.6 W. + }	• Cloudy; sh. at times aft. 12h., & equally after 15h.	7	
8	28.887	28.956	50.9	40.9	44.7	40.3	41.0	38.1	W	3.5	W	2.5-3.5	.00	3.5 W	8.6 W. + } 8.6 W. + }	n.d.	0.4 st.	• Squally; fine, sunny.	8	
9	29.073	29.350	49.0	36.5	44.1	40.2	37.0	34.0	W	3.5	W	2-3	.02	3 W	2.6 W.	0	0	• Mostly fine; a few light passing showers.	9	
10	29.434	29.598	42.0	33.5	38.7	36.0	39.0	37.9	Var.	1.0	E	1.5-2	.00	2.5 W	9.6 W. + } 9.6 W. + }	2 E	9.6 W. + } 9.6 W. + }	• Cloudy till 14h., then sunny; sh. r. g. sh. aft. 12h. & 15h. & 18h. 10m.	10	
11*	29.852	29.990	44.4	36.3	42.1	41.0	37.9	37.7	E	2.0	E	0.5-1	.13	2 E	10.6 W.	2 W	10.6 W.	• R. till aft. 6h.; day fine; cloudy till aft. noon, then sunny;	11	
12	29.965	30.010	54.7	35.6	44.1	40.3	45.2	42.0	W	2.0	W	1.5	.00	0	0	n.d.	0 probably.	• Fine, sunny.	12	
13	30.148	30.242	57.0	41.7	48.3	43.9	46.9	42.0	W	2.0	W	2-2.5	.00	2 W	1.6 W.	2 W	10.5 W. + 10.	• Fine; mostly cloudy; sunny at times.	13	
14	30.207	30.267	50.0	41.2	46.4	43.5	44.1	42.7	W	2.4	W	0.5	.01	2 W	9.6 W.	2 W	9.6 W.	• Fine; mostly sunny; sh. after 18h. 45m.	14	
15	30.351	30.380	51.3	41.6	46.1	41.2	45.9	44.1	W	2.0	W	1-1.5	.00	2 W	8.6 W.	2 W	10.6 W.	• Fine; cloudy with sunny inters.; sh. sh. after 18h.	15	
16	30.398	30.400	46.0	40.4	42.9	39.8	41.1	38.1	W	2.0	W	2.0	.01	2 W	9.5 W.	2.4 W	10.6 W.	• Cloudy; clear; li. sh. between 5h. 16h., and aft. 17h.	16	
17	30.322	30.241	43.9	38.6	42.2	40.0	39.9	38.2	W	2.4	E	2-2.5	.01	2.4 W	10.6 W.	2.2 W	10.6 W.	• Cloudy till aft. 14h., then sunny; a few li. sh.	17	
18*	30.124	30.064	42.4	39.1	41.2	40.2	40.5	40.0	W	2.5	W	2.5-3	.08	3.5 W	10.6 W. + 10.	3.5 W	10.6 W. + 10.	• Overcast; drizzly sh.; brisk r. commencing at 2h. 10m.	18	
19	30.008	30.114	41.8	39.9	40.9	40.5	40.2	40.0	W	3.0	W	2-2.5	.15	4.7 W	10.6 W.	n.d.	10 n.	• Overcast; brisk r. sh. sh. at 7h. & 10h. & 11h. & 12h. & 13h. & 14h. & 15h. & 16h. & 17h. & 18h. & 19h. & 20h. & 21h. & 22h. & 23h. & 24h. & 25h. & 26h. & 27h. & 28h. & 29h. & 30h. & 31h. & 32h. & 33h. & 34h. & 35h. & 36h. & 37h. & 38h. & 39h. & 40h. & 41h. & 42h. & 43h. & 44h. & 45h. & 46h. & 47h. & 48h. & 49h. & 50h. & 51h. & 52h. & 53h. & 54h. & 55h. & 56h. & 57h. & 58h. & 59h. & 60h. & 61h. & 62h. & 63h. & 64h. & 65h. & 66h. & 67h. & 68h. & 69h. & 70h. & 71h. & 72h. & 73h. & 74h. & 75h. & 76h. & 77h. & 78h. & 79h. & 80h. & 81h. & 82h. & 83h. & 84h. & 85h. & 86h. & 87h. & 88h. & 89h. & 90h. & 91h. & 92h. & 93h. & 94h. & 95h. & 96h. & 97h. & 98h. & 99h. & 100h. & 101h. & 102h. & 103h. & 104h. & 105h. & 106h. & 107h. & 108h. & 109h. & 110h. & 111h. & 112h. & 113h. & 114h. & 115h. & 116h. & 117h. & 118h. & 119h. & 120h. & 121h. & 122h. & 123h. & 124h. & 125h. & 126h. & 127h. & 128h. & 129h. & 130h. & 131h. & 132h. & 133h. & 134h. & 135h. & 136h. & 137h. & 138h. & 139h. & 140h. & 141h. & 142h. & 143h. & 144h. & 145h. & 146h. & 147h. & 148h. & 149h. & 150h. & 151h. & 152h. & 153h. & 154h. & 155h. & 156h. & 157h. & 158h. & 159h. & 160h. & 161h. & 162h. & 163h. & 164h. & 165h. & 166h. & 167h. & 168h. & 169h. & 170h. & 171h. & 172h. & 173h. & 174h. & 175h. & 176h. & 177h. & 178h. & 179h. & 180h. & 181h. & 182h. & 183h. & 184h. & 185h. & 186h. & 187h. & 188h. & 189h. & 190h. & 191h. & 192h. & 193h. & 194h. & 195h. & 196h. & 197h. & 198h. & 199h. & 200h. & 201h. & 202h. & 203h. & 204h. & 205h. & 206h. & 207h. & 208h. & 209h. & 210h. & 211h. & 212h. & 213h. & 214h. & 215h. & 216h. & 217h. & 218h. & 219h. & 220h. & 221h. & 222h. & 223h. & 224h. & 225h. & 226h. & 227h. & 228h. & 229h. & 230h. & 231h. & 232h. & 233h. & 234h. & 235h. & 236h. & 237h. & 238h. & 239h. & 240h. & 241h. & 242h. & 243h. & 244h. & 245h. & 246h. & 247h. & 248h. & 249h. & 250h. & 251h. & 252h. & 253h. & 254h. & 255h. & 256h. & 257h. & 258h. & 259h. & 260h. & 261h. & 262h. & 263h. & 264h. & 265h. & 266h. & 267h. & 268h. & 269h. & 270h. & 271h. & 272h. & 273h. & 274h. & 275h. & 276h. & 277h. & 278h. & 279h. & 280h. & 281h. & 282h. & 283h. & 284h. & 285h. & 286h. & 287h. & 288h. & 289h. & 290h. & 291h. & 292h. & 293h. & 294h. & 295h. & 296h. & 297h. & 298h. & 299h. & 300h. & 301h. & 302h. & 303h. & 304h. & 305h. & 306h. & 307h. & 308h. & 309h. & 310h. & 311h. & 312h. & 313h. & 314h. & 315h. & 316h. & 317h. & 318h. & 319h. & 320h. & 321h. & 322h. & 323h. & 324h. & 325h. & 326h. & 327h. & 328h. & 329h. & 330h. & 331h. & 332h. & 333h. & 334h. & 335h. & 336h. & 337h. & 338h. & 339h. & 340h. & 341h. & 342h. & 343h. & 344h. & 345h. & 346h. & 347h. & 348h. & 349h. & 350h. & 351h. & 352h. & 353h. & 354h. & 355h. & 356h. & 357h. & 358h. & 359h. & 360h. & 361h. & 362h. & 363h. & 364h. & 365h. & 366h. & 367h. & 368h. & 369h. & 370h. & 371h. & 372h. & 373h. & 374h. & 375h. & 376h. & 377h. & 378h. & 379h. & 380h. & 381h. & 382h. & 383h. & 384h. & 385h. & 386h. & 387h. & 388h. & 389h. & 390h. & 391h. & 392h. & 393h. & 394h. & 395h. & 396h. & 397h. & 398h. & 399h. & 400h. & 401h. & 402h. & 403h. & 404h. & 405h. & 406h. & 407h. & 408h. & 409h. & 410h. & 411h. & 412h. & 413h. & 414h. & 415h. & 416h. & 417h. & 418h. & 419h. & 420h. & 421h. & 422h. & 423h. & 424h. & 425h. & 426h. & 427h. & 428h. & 429h. & 430h. & 431h. & 432h. & 433h. & 434h. & 435h. & 436h. & 437h. & 438h. & 439h. & 440h. & 441h. & 442h. & 443h. & 444h. & 445h. & 446h. & 447h. & 448h. & 449h. & 450h. & 451h. & 452h. & 453h. & 454h. & 455h. & 456h. & 457h. & 458h. & 459h. & 460h. & 461h. & 462h. & 463h. & 464h. & 465h. & 466h. & 467h. & 468h. & 469h. & 470h. & 471h. & 472h. & 473h. & 474h. & 475h. & 476h. & 477h. & 478h. & 479h. & 480h. & 481h. & 482h. & 483h. & 484h. & 485h. & 486h. & 487h. & 488h. & 489h. & 490h. & 491h. & 492h. & 493h. & 494h. & 495h. & 496h. & 497h. & 498h. & 499h. & 500h. & 501h. & 502h. & 503h. & 504h. & 505h. & 506h. & 507h. & 508h. & 509h. & 510h. & 511h. & 512h. & 513h. & 514h. & 515h. & 516h. & 517h. & 518h. & 519h. & 520h. & 521h. & 522h. & 523h. & 524h. & 525h. & 526h. & 527h. & 528h. & 529h. & 530h. & 531h. & 532h. & 533h. & 534h. & 535h. & 536h. & 537h. & 538h. & 539h. & 540h. & 541h. & 542h. & 543h. & 544h. & 545h. & 546h. & 547h. & 548h. & 549h. & 550h. & 551h. & 552h. & 553h. & 554h. & 555h. & 556h. & 557h. & 558h. & 559h. & 560h. & 561h. & 562h. & 563h. & 564h. & 565h. & 566h. & 567h. & 568h. & 569h. & 570h. & 571h. & 572h. & 573h. & 574h. & 575h. & 576h. & 577h. & 578h. & 579h. & 580h. & 581h. & 582h. & 583h. & 584h. & 585h. & 586h. & 587h. & 588h. & 589h. & 590h. & 591h. & 592h. & 593h. & 594h		

Leith  
April 1883  
31

1  
2  
3

1883  
1882  
1881

## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *May* 18*86*; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✕, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked ✕, with a Fortin Standard.

Days of Month.	BAROMETER, Corrected and Reduced to 32° and Sea Level.		SELF- REGISTERING THERMO- METERS, In Shade 4 feet above Grass.		HYGROMETER. Kew No. 336478				WIND.		RAIN.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.		
	9 h.	20 h. 45 m.	Max. Kew No. 22241	Min. Kew No. 22218	8 h. 15 m.		21 h.		8 h. 15 m.			21 h.								
	Inches.	Inches.			Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction	Force, 0—6.		Direction	Force, 0—6.	Amount in inches.	Velocity (0—6), and Direction.	Amount, (0—10), and Species.			Velocity (0—6), and Direction.	Amount, (0—10), and Species.
1	30.296	30.354	47.0	38.1	43.9	39.3	40.2	35.9	SE	2.0	0.00	2.11 Wly	0.5 bi-st	?	1st. overcast.	Fine, sunny; very clear.	1			
2✕	30.324	30.249	60.2	33.7	47.7	40.5	51.1	44.2	SE	2.0	0.00	2.11 W	9.6 bi-st	2.11 W	5.6 bi-st.	Fine, mostly cloudy; sunny at times; li. obs. at 22.45.	2			
3	30.228	30.270	54.6	46.6	50.4	44.0	51.1	47.9	SW	1-2	0.00	2.5 SW	10.6 nf.	1.5 SW	10.6 nf.	Cloudy; li. obs. about 18h.	3			
4	30.253	30.286	60.0	46.7	54.0	48.6	51.8	47.9	S	2.0	0.03	2.5 W	10.6 nf. bi-st.	n.d.	10.6 nf. bi-st.	Cloudy; fine till 14h, then showering.	4			
5	30.355	30.302	63.0	47.8	51.4	47.8	53.0	50.9	Wly	1.5	0.03	2.5 W	10.6 nf.	2.4 W	10.6 nf.	Cloudy; obs. after 15h. 30 m.	5			
6	30.273	30.210	66.3	51.7	54.9	51.0	56.8	47.8	W	2.0	0.00	2.5 W	10.6 nf. + st.	2.5 W	5.6 bi-st.	Fine; cloudy till about noon, then sunny.	6			
7	30.135	30.131	66.7	44.9	52.9	47.3	47.9	45.8	Variable	0.5	0.00	2.5 W	3.6 bi-st	n.d.	7.6 bi-st.	Fine, cloudy; very clear; sunny.	7			
8	30.188	30.166	47.9	43.9	44.6	42.5	44.2	42.8	E	2.4	0.00	2.5 E	10.6 nf.	2.4 E	10.6 nf.	Fine, cloudy; very clear.	8			
9✕	30.094	29.989	47.0	42.2	44.6	42.0	42.6	42.0	SE	2.0	0.20	2.5 E	10.6 nf. + st.	2.5 E	10.6 nf.	Cloudy; frequent r. obs. with sleet at 11h. 10 m.	9			
10	29.935	29.949	42.9	40.0	42.1	41.4	40.2	39.6	SE	2.0	0.27	2.4 E	10.6 nf. + st.	2.5 E	10.6 nf.	Overcast; showering; brisk r. at 21h.	10			
11	29.962	29.974	46.0	39.2	40.4	39.3	42.9	40.4	E	2.0	0.11	2.6 W	10.6 nf.	2.4 W	2.6 bi-st.	Cloudy; obs. till abt. 10h, then fine; sunny inters. afternoon.	11			
12	29.888	29.713	44.0	37.9	42.4	39.6	38.9	37.1	E	2.4	0.06	2.2 E	7.6 nf. + st.	3.5 E	10.6 nf. + st.	Cloudy; obs. of r. + s. abt. 17h, and slight hl. at 21h. 10 m.	12			
13	29.615	29.533	46.1	37.5	43.2	41.0	43.2	40.7	E	3.0	0.08	3.6 W	10.6 nf.	3.6 W	7.6 nf.	Heavy r. obs. (with hl. at 5h. 15 m.) till 6h; day fine; sunny.	13			
14	29.467	29.453	51.2	40.9	46.8	41.1	44.9	38.9	W	2.5	0.00	2.5 W	6.6 bi-st	2.4 W	4.6 nf. + st.	Fine, sunny.	14			
15	29.459	29.735	53.3	38.8	44.9	40.0	46.8	42.1	Wly	2.3-3.3	0.00	2.5 W	7.6 nf.	2.4 W	8.6 nf. chiefly.	Fine, cloudy; sunny after 15h.	15			
16✕	29.641	29.606	53.3	38.0	43.1	41.0	45.6	42.0	S	1.0	0.22	2.5 S	10.6 nf.	2.5 W	0.5 bi-st.	Overcast; const. r. from 8h. till 12h, then showering; fine after 14h.	16			
17	29.587	29.238	58.0	42.8	51.8	46.1	49.2	45.0	Wly	2-2.4	0.15	2.5 W	3.6 bi-st	2.5 W	5.6 nf. + st.	Cloudy, with sunny inters. till noon; overcast; brisk r. from 14h. till 19h, then squally; heavy obs. at 21h. 15 m.	17			
18	29.383	29.541	60.1	47.7	53.2	47.0	49.8	46.0	SW	3-3.5	0.04	2.5 SW	9.6 nf.	3.5 SW	9.5 nf. + st.	Squally; mostly sunny; obs. at 15h. 20 m.	18			
19	29.849	30.014	60.0	45.7	50.6	45.6	50.4	44.0	W	2-2.5	0.00	2.5 W	1.5 bi-st (large)	0	0	Fine, sunny.	19			
20✕	30.081	29.926	50.4	41.0	47.7	45.4	45.7	45.0	E	2.0	0.83	1.5 E	10.6 nf. + st.	4.1 E (occ.)	10.6 nf. + st.	Wind at 6h, W. 1.0; and at 7h, E. 2.0.	20			
21	29.990	30.211	56.9	43.0	45.0	44.0	52.3	47.9	W	1.0	0.35	2.5 W	10.6 nf.	1.5 W	7.6 nf. + st.	Overcast, r. till abt. 10h, then fine, with sunny inters.	21			
22	30.285	30.261	64.6	39.3	48.4	46.1	48.8	45.0	Variable	1.0	0.00	0	0	0	0	Morning heavy dr.; day fine, sunny; very clear afternoon.	22			
23✕	30.229	30.096	50.5	40.8	49.8	45.8	45.9	45.0	Wly	1-2	0.03	2.5 W	5.6 bi-st	2.5 E	10.6 nf. + st.	Fine till about 16h, then showering.	23			
24	29.917	29.707	57.0	44.8	47.5	45.7	53.8	50.6	Variable	0.5	0.01	1.5 S	10.6 nf. bi-st.	0.5 SW	10.6 nf. + st.	Cloudy; fine.	24			
25	29.480	29.405	56.2	47.8	50.9	48.9	47.9	44.2	Wly	2.0	0.00	2.4 W	10.6 nf.	n.d.	6.6 bi-st.	Cloudy till about 16h, then sunny; a few slight obs.	25			
26	29.431	29.534	56.3	41.0	47.8	42.1	46.0	41.2	W	2.5	0.00	2.4 W	4.6 nf.	1.5	4.6 nf. + st.	Fine, sunny.	26			
27	29.532	29.277	49.0	36.9	46.0	43.2	43.4	42.8	Variable	1.0	0.77	1.5 SE	8.6 nf. + st.	3.1	10.6 nf.	Fine till noon; overcast; const. r. after 12h. 30 m.	27			
28	29.218	29.441	48.4	40.7	44.2	42.7	45.9	43.5	W	2-2.4	0.71	2.4 W	10.6 nf. bi-st.	2.4 W	10.6 nf. bi-st.	Overcast, r. till after 7h, and from 10h. till 16h. 30 m.	28			
29	29.641	29.866	58.9	44.7	46.9	45.0	47.1	45.0	W	1.0	0.11	1.5 W	9.5 nf. + st.	2.4 E	10.6 nf. + st.	Overcast, r. till 6h; day fine, mostly sunny; distant T. at 18h.	29			
30✕	30.042	30.111	49.1	44.2	45.5	44.0	44.2	42.2	E	2.4	0.02	2.5 E	10.6 nf. + st.	0.5 W	7.6 nf. + st.	Showering till 7h, then fine, cloudy; sunny at times after 15h.	30			
31	30.126	30.069	53.4	37.5	47.0	44.1	48.1	46.2	SE, var.	1.0	0.05	1.5 SE	10.6 nf.	?	8.6 nf. + st.	Fine; mostly sunny.	31			
Sums.	926.904	926.617	1678.3	1305.8	1469.6	1362.1	1459.7	1359.6				55.25	64.5	273.5	7.8		Note.—All the morning observations of Thermometers, Wind, and Clouds in this Schedule were made at 8h. 15 m., except those on the dates marked ✕ which were made at 9h.			
Corrected Means.	29.900	29.891	54.1	42.1	47.4	43.9	47.1	43.9				1.78	2.08	8.8	8.3					
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			

BAROMETER, "corrected Mean" = 29.900  
at 9 h. ...."Corrected Mean" at 20 h. 45 m. ... = 29.891  
mean at station  
10 ft ... = 29.877  
Mean, reduced to 32°, and Sea-level, = 29.895Highest corrected Reading at 9h. ... = 30.360  
Universal Time, on the 5th. ... = 3.55Lowest corrected Reading at 22h. ... = 29.489  
Universal Time, on the 22nd. ... = 2.18

Difference, or Monthly Range, ... = 1.137

## S. - R. THERMOMETERS

(in shade, &c.) = 66.7  
Highest in Month (corrected for Index Errors) on the 7th. ....

Lowest in Month, (corrected for Index Errors), on the 2nd. .... = 33.7

Difference, or Monthly Range, ... = 33.0

"Corrected Mean" of all the Highest, (Col. 3), ... = 54.1

"Corrected Mean" of all the Lowest, (Col. 4), ... = 42.1

Difference, or Mean Daily Range, ... = 12.0

Calculated Mean Temperature of Month, = 48.1

## HYGROMETER, "Corrected

Mean" of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), ... = 47.2  
"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), ... = 43.9

Computed Temperature of Dew-Point, = 40.2

Do. Elastic Force of Vapour, ... = 24.9

Relative Humidity (Saturation = 100), = 77

RAIN fell on 18 Days; Amount, ... = 4.02 Inches.

WIND.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
9 h.	1	1	8	3	2	2	10		4	1.78
21 h.	1	2	8	5	1	4	7	3		2.08
Mean.	1	2	8	4	1	3	8	2	2	1.93

## NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	m.	denotes meteor.
ci.	" cirrus.	ms.	" meteors.
ci.-cn.	" cirro-cumulus.	n.	" nimbus.
ci.-st.	" cirro-stratus.	r.	" rain.
cu.	" cumulus.	h. r.	" heavy rain.
cu.-f.	" cumulo-form.	c. h. r.	" continued heavy rain.
cu.-st.	" cumulo-stratus.	st.	" stratus.
d.	" dew.	sc.	" scud.
f.	" fog.	sl.	" sleet.
fr.	" frost.	s.	" snow.
h.-fr.	" hoar-frost.	so. ha.	" solar halo.
h.	" haze.	sq.	" squall.
h. d.	" heavy dew.	sq.s.	" squalls.
h. l.	" hail.	t.	" thunder.
l.	" lightning.	t. s.	" thunder storm.
li. cl.	" light clouds.	w.	" wind.
li. sh.	" light showers.	g.	" gale of wind.
lu. co.	" lunar corona.	n. d.	" not discernible.
lu. ha.	" lunar halo.		

## TABLE FOR ESTIMATING FORCE OF WIND.

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

\* Where an asterisk appears in Columns 3 and 4, the Highest Temperatures for the 24 hours (preceding 21 h.) were registered during the Night, and the Lowest Temperatures during the Day.

† These Hygrometrical Deductions are calculated from Glaisher's Hygrometrical Tables, Sixth Edition.

Greatest daily range on the 2nd = 26.5

Observations made and Return verified by

(Signed)

James Colman &amp; George Redpath.

Leith  
May 1886  
3

1-173

1-173

15251287 = 127 2800  
127 2800  
11277 20

## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *June* 18*86*; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✕, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked ✕, with a Fortin Standard.

Days of Month.	BAROMETER. Corrected and Reduced to 32° and Sea Level.		SELF- REGISTERING THERMO- METERS. In Shade 4 feet above Grass.		HYGROMETER. Kew No. 33, 64, 7, 8.				WIND.				RAIN. Amount in inches.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.
	9 h.	20 h. 45 m.	Max. Kew No. 22, 24, 1	Min. Kew No. 22, 2, 18	9 h.		21 h.		9 h.		21 h.			9 h.		21 h.				
	Inches.	Inches.			Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction	Force, 0—6.	Direction	Force, 0—6.		Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.	Amount, (0—10), and Species.			
1	30.008	29.918	48.1	41.2	46.4	44.9	44.9	44.3	SE	1.0	NE	2.5-3	0.31	1.5 SW	10.6 w.	3.5 NE	10 n. w.	Barometer read at 8h. 15m.	Fine till 10 <sup>h</sup> , then showering; o'cast, condt. r. after 14 <sup>h</sup> .	1
2	29.976	30.141	50.1	43.0	46.2	44.7	43.0	40.8	NE	2-2.5	E	2.0	.40	2.5 NE	10.6 w. dr.	2.4 NE	0.5 w.		Overcast, r. till 7 <sup>h</sup> , day fine, sunny at times.	2
3	30.192	30.147	54.4	36.3	47.6	44.0	49.8	47.0	E	1.0	Variable	0.5	.00	2 E	3.6 w.	n. d.	4.0 haze.		Fine, sunny; nearly cloudless during afternoon.	3
4	30.154	30.133	67.3	41.7	55.9	49.7	56.8	50.7	W	2.0	W	2-2.4	.00	2 W	3.6 w.	0	0		Fine, sunny.	4
5	30.098	30.012	64.4	48.5	59.1	51.8	53.0	49.6	NE	2.0	W	2.0	.00	2 NE	1.6 w.	0	0		Fine, mostly sunny.	5
6	29.949	29.876	61.0	48.9	52.3	46.6	51.8	49.9	W	2-2.5	W	2.0	.01	2 W	9.6 w.	2 W	10.6 w. dr.	at 5h. 45m. 6h. dr. from SE: velocity 2.	Cloudy, with sunny inters.; fine till 18 <sup>h</sup> , then li. shs.	6
7	29.912	29.943	62.8	51.6	60.0	53.7	52.8	50.9	NE	1.0	SE	2.0	.01	2 NE	1.6 w.	1.5 SE	3.6 w. dr.		Fine, clear, sunny.	7
8	29.923	29.848	56.4	45.3	53.0	50.1	49.0	48.0	NE	1.5-2	NE	1-1.5	.00	0	0	1.5 S	10.6 w. dr.	with t. & v. at 18h. 30m.	Mostly cloudy; li. shs. between 13 <sup>h</sup> & 14 <sup>h</sup> ; rather hazy.	8
9	29.812	29.775	52.9	47.7	50.3	49.3	48.9	48.6	NE	2.0	NE	1-2	.83	n. d.	10.6 w. dr.	n. d.	10.6 w. dr.		Drizzle, hazy; li. shs. bet. 13 <sup>h</sup> & 14 <sup>h</sup> , rough h. r. from 18 <sup>h</sup> till 19 <sup>h</sup> 20 <sup>h</sup> .	9
10	29.786	29.836	52.2	46.0	49.5	49.3	47.0	47.0	E	2.0	NE	1-1.5	.23	n. d.	10.5	?	10 n.	t. about 16h.	O'cast, thick h. at times; h. shs. at times, aft. 13 <sup>h</sup> , distant	10
11	29.807	29.654	66.3	46.7	50.6	49.7	55.8	52.7	E	2.0	S	0.5	.11	2.5 SE	7.6 w.	2.5 SE	5.6 w. dr.		Mostly fine; shs. between 15 <sup>h</sup> and 16 <sup>h</sup> 30 m.	11
12	29.532	29.581	60.0	51.8	55.6	51.7	52.0	49.2	W	2.0	W	2.0	.21	2.5 W	7.6 w.	1.5 SE	9.6 w.	Cloudy, with sunny inters.; frequent shs. r. at 12 <sup>h</sup> & 13 <sup>h</sup> .	12	
13	29.705	29.825	63.1	46.6	55.6	50.0	53.6	48.9	NE	2.0	W	2-2.4	.00	2 W	6.6 w.	n. d.	1.6 (hor.)	Fine, sunny.	13	
14	29.774	29.636	62.9	46.9	55.5	51.7	51.8	47.2	SE	2.0	W	2-3	.02	2 S	10.6 w. dr.	2.4 SE	3.6 w. dr.	Cloudy; showers; sunny after 16 <sup>h</sup> .	14	
15	29.681	29.802	58.8	48.7	55.5	48.4	50.2	46.2	W	3.5-4	W	3.5	.01	3 W	8.6 w.	3 W	7.6 w.	Fine, sunny; shs. about 6 <sup>h</sup> ; very squally.	15	
16	29.902	30.028	63.2	47.8	55.4	48.9	54.5	48.4	W	3.0	W	2.5-3	.00	2.5 W	6.6 w.	2.4 W	2.6 w. (hor.)	Fine; mostly sunny.	16	
17	30.072	30.141	56.9	45.6	55.1	47.0	50.9	47.9	NE	2.0	Variable	0.5-1	.00	2.5 NE	9.6 w.	1.5 NE	10.6 w.	Fine, cloudy; li. shs. during afternoon.	17	
18	30.094	30.054	63.1	45.9	54.6	49.9	52.6	50.6	W	2.0	E	2.0	.00	2.5 SE	10.6 w. dr.	2.5 SE	1.6	Fine; cloudy till about noon, then sunny.	18	
19	30.006	30.077	68.0	46.1	60.2	55.1	51.3	49.1	SE	1.5	SE	2.0	.00	2.5 SE	1.6 w.	2.4 SE	3.6 w.	Fine, sunny; nearly cloudless during day.	19	
20	30.130	30.085	64.0	47.1	57.6	47.9	52.3	49.1	SE	1.5	SE	2.4	.00	2 NE	1.6 w.	0	0	Fine, sunny; very clear.	20	
21	30.047	29.932	67.9	47.8	58.3	52.2	53.3	50.7	W	2.0	W	2.4	.00	2.5 W	3.6 w.	2.4 W	4.6 w.	Fine.	21	
22	29.814	29.659	64.0	51.4	59.1	51.7	52.3	46.8	W	2.5	W	2.5-3	.00	2 W	10.6 w. dr.	2.4 W	2.6 w.	Fine; mostly cloudy till 18 <sup>h</sup> , then sunny.	22	
23	29.475	29.611	58.2	49.3	54.2	47.9	49.9	45.1	W	3.0	W	2.5-3	.01	3 W	4.6 w.	2.4 W	2.6 w. (hor.)	Fine; sunny at times; passing showers.	23	
24	29.747	29.667	58.0	46.7	53.0	47.8	53.0	51.7	W	2.5-3	W	3.0	.00	2.5 W	10.6 w.	2.5 SE	6.6 w. dr.	Cloudy; slight shs. after 14 <sup>h</sup> .	24	
25	29.756	29.855	58.8	49.7	53.3	46.5	52.2	47.0	W	2.5	W	2-2.5	.00	2.5 W	9.6 w.	2.4 W	6.6 w. dr.	Fine, cloudy; sunny intervals during afternoon.	25	
26	29.948	30.065	61.8	46.4	54.3	47.5	52.0	46.2	W	2.5	W	2.0	.00	2 W	4.6 w.	n. d.	1.6 w. above horizon.	Fine, sunny.	26	
27	30.169	30.137	63.2	45.0	52.8	47.8	55.0	48.1	W	2.0	W	1.5	.00	1.5 W	7.6 w.	0	0	Fine; sunny at times.	27	
28	30.130	30.176	70.2	43.1	59.5	52.9	59.3	53.7	W	1.5	W	1.5	.00	2.5 W	4.6 w.	1.5 W	10.6 w. dr.	Fine; cloudy, with sunny inters.; slight shs. aft. 20 <sup>h</sup> .	28	
29	30.238	30.301	67.9	57.1	61.7	53.3	51.3	50.1	W	2.5	NE	1.0	.00	2.5 W	3.6 w. dr.	2.4 W	4.6 w. dr.	Fine; mostly cloudy.	29	
30	30.309	30.248	65.9	50.7	53.4	51.9	56.9	54.2	E	1.0	Variable	0.5	.00	1.0 S	3.6 w. dr.	n. d.	3.6 (hor.)	Barometer (corrected) at 6h. 7h. & 8h., 30° 31' 2".	Fine, sunny; nearly cloudless during day.	30
Sums.	898.146	898.163	1831.8	1404.6	1635.6	1483.9	1557.2	1459.7		60		52	2.15		196		170			
Corrected Means.	29.938	29.939	61.0	46.8	54.5	49.5	51.9	48.6		2.00		1.93	2.15		6.5		5.9			
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			

BAROMETER, "corrected Mean" = 29.938  
at 9 h. ...."Corrected Mean" at 20 h. 45 m. ... = 29.939  
Mean, reduced to 32°, and Sea-level, = 29.938Highest corrected Reading at 2<sup>nd</sup> ... = 30.309  
Universal Time, on the 30<sup>th</sup> ...Lowest corrected Reading at 23<sup>rd</sup> ... = 29.475  
Universal Time, on the 23<sup>rd</sup> ...

Difference, or Monthly Range, ..... = 0.834

## S. - R. THERMOMETERS

(in shade, &c.) = 70° 2  
Highest in Month (corrected for Index Errors) on the 28<sup>th</sup> ...Lowest in Month, (corrected for Index Errors), on the 3<sup>rd</sup> ... = 36° 3

Difference, or Monthly Range, ..... = 33° 9

"Corrected Mean" of all the Highest, (Col. 3), ..... = 61° 0

"Corrected Mean" of all the Lowest, (Col. 4), ..... = 46° 8

Difference, or Mean Daily Range, ..... = 14° 2

Calculated Mean Temperature of Month, = 53° 9

## HYGROMETER, "Corrected"

Mean "of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), ..... = 53° 2

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), ..... = 49° 0

†† Computed Temperature of Dew-Point, = 44° 8 (3.38)

†† Do. Elastic Force of Vapour, ... = 29.7

†† Relative Humidity (Saturation = 100), = 73

RAIN fell on 11 Days; Amount, ..... = 2.15 Inches.

WIND.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
9 h.	1	1	6	3	1	1	5	3		2.00
21 h.	0	4	2	3	1	1	6	4		1.93
Mean.	0	3	4	3	1	0	6	1	2	1.96 = 3.84

## NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	m.	denotes meteor.
ci.	cirrus.	ms.	meteors.
ci.-cu.	cirro-cumulus.	n.	nimbus.
ci.-st.	cirro-stratus.	r.	rain.
cu.	cumulus.	h. r.	heavy rain.
cu.-f.	cumulo-form.	c. h. r.	continued heavy rain.
cu.-st.	cumulo-stratus.	st.	stratus.
d.	dew.	sc.	scud.
f.	fog.	sl.	sleet.
fr.	frost.	s.	snow.
h.-fr.	hoar-frost.	so. ha.	solar halo.
h.	haze.	sq.	squall.
h. d.	heavy dew.	sq.	squalls.
hl.	hail.	t.	thunder.
l.	lightning.	t. s.	thunder storm.
li. cl.	light clouds.	w.	wind.
li. sh.	light showers.	g.	gale of wind.
lu. co.	lunar corona.	n. d.	not discernible.
lu. ha.	lunar halo.		

## TABLE FOR ESTIMATING FORCE OF WIND.

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

\* Where an asterisk appears in Columns 3 and 4, the Highest Temperatures for the 24 hours (preceding 21 h.) were registered during the Night, and the Lowest Temperatures during the Day.

†† These Hygrometrical Deductions are calculated from Glaisher's Hygrometrical Tables, Sixth Edition.

Observations made and Return verified by

Greatest Daily Range = 27.1 on the 28<sup>th</sup> (Signed)

James Polam &amp; George Redpath.

Birth  
June 1888

3

## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *July* 18*86*; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✕, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked ✕, with a Fortin Standard.

NOTE.—All the 9 h. Barometric Observations are reduced to Sea Level, except those marked.																				
Days of Month.	BAROMETER, Corrected and Reduced to 32° and Sea Level.		SELF- REGISTERING THERMO- METERS, In Shade 4 feet above Grass.		HYGROMETER. Kew No. 33,647.8.				WIND.				RAIN. Amount in inches.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.
	9 h.	20 h. 45 m.	Max. Kew No. 22,241	Min. Kew No. 22,218	9 h.		21 h.		9 h.		21 h.			9 h.		21 h.				
					Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force, 0—6.	Direction.	Force, 0—6.		Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.	Amount, (0—10), and Species.			
1	30.230	30.152	76.1	51.8	60.7	56.9	64.0	59.9	E	1.5	W	1.0	0.00	0.5 W	Wly	1.6i-cu.	?	1.6i-cu.	1st. (loc.)	1
2	30.203	30.248	78.5	56.1	70.6	62.0	57.9	54.9	W	2.0	SE	2.0	.00	0	0	0	0	0	0	2
3	30.266	30.282	72.3	52.2	66.0	61.2	52.8	52.0	W	2.4	E	1.0	.00	2 W	Wly	9.6i-cu.	n.d.	10 haze	2.6i-cu.	3
4*	30.196	30.201	71.6	51.8	64.0	59.0	58.7	54.2	W	2.0	W	2.5	.00	2 W	Wly	9.6i-cu.	2.5 W	2.6i-cu.	2.6i-cu.	4
5	30.223	30.081	65.9	51.6	58.5	54.1	59.6	54.9	W	2.5	W	2.2	.00	2 W	Wly	9.6i-cu.	2.5 W	2.6i-cu.	2.6i-cu.	5
6	29.944	29.947	68.0	55.9	61.0	57.9	55.9	50.0	W	3.5	W	2.0	.01	3.5 W	Wly	2.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	6
7	29.879	29.812	65.0	51.5	57.9	51.4	54.9	49.1	W	2.4	W	2.2	.00	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	7
8	29.811	29.924	65.4	48.4	56.4	50.5	50.3	49.0	W	2.4	E	1.5	.10	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	8
9	30.039	30.036	62.9	44.1	53.0	44.7	52.8	47.9	W	0.5	W	2.2	.03	0	0	1 W	2.5 W	2.6i-cu.	2.6i-cu.	9
10	30.100	30.049	66.3	45.9	55.6	48.8	53.8	49.9	W	1.2	W	1.5	.04	1.5 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	10
11*	29.855	29.794	70.5	52.8	63.1	59.8	60.8	58.0	W	2.2	W	2.2	.14	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	11
12	29.805	29.780	62.1	52.8	58.2	53.4	54.8	51.0	W	3.0	W	2.0	.01	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	12
13	29.766	29.503	63.2	50.9	54.4	51.5	53.8	52.1	W	3.0	SE	2.0	.03	3 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	13
14	29.156	29.394	61.1	51.9	54.0	52.4	51.9	47.0	W	2.5	W	2.5	.67	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	14
15	29.517	29.583	60.9	46.9	56.0	50.1	51.0	47.8	W	3.5	W	2.5	.00	3 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	15
16	29.631	29.827	62.8	46.9	55.8	50.1	52.8	48.0	W	2.0	W	2.2	.02	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	16
17	29.885	29.848	63.0	47.1	55.6	49.9	55.8	53.6	W	2.0	Calm	0	.00	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	17
18*	29.737	29.633	73.7	52.3	55.8	55.1	54.8	53.4	Variable	0.5	Variable	0.5	.35	2.5 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	18
19	29.563	29.688	70.3	52.8	67.5	60.9	59.7	54.4	W	2.5	W	2.2	.00	2.5 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	19
20	29.824	29.963	72.1	55.7	61.7	53.4	59.4	55.7	W	2.5	SE	1.5	.00	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	20
21	29.875	29.659	75.1	55.9	69.9	61.1	58.8	58.0	SE	2.4	SE	2.0	.22	0	0	2.5 W	10 n.	10 n.	10 n.	21
22	29.538	29.441	68.1	52.9	61.7	56.5	57.9	53.6	S	2.4	W	2.5	.10	2.5 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	22
23	29.471	29.465	69.1	55.2	61.4	53.7	56.8	54.8	W	2.4	SE	1.5	.02	2.5 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	23
24	29.455	29.513	59.3	53.9	56.3	55.7	55.1	53.0	W	2.0	W	2.0	.66	3 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	24
25*	29.559	29.586	61.2	52.9	58.6	54.1	53.8	52.9	W	1.0	E	2.5	.01	0	0	3.5 (scud)	10 at 100.	10 at 100.	10 at 100.	25
26	29.539	29.635	55.3	51.7	52.8	51.3	53.4	48.0	E	3.3	W	2.5	.01	3 E	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	26
27	29.758	29.955	58.0	47.9	52.0	46.3	51.8	46.1	W	2.5	W	2.2	.01	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	27
28	30.004	30.011	64.0	44.8	54.8	47.5	53.8	48.9	W	2.0	W	2.0	.00	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	28
29	29.959	29.808	59.2	48.3	56.9	51.9	54.5	52.2	E	2.0	SE	2.0	.04	2.5 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	29
30	29.705	29.666	56.0	51.6	52.8	51.8	52.9	51.9	W	1.5	SE	2.0	.21	2 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	30
31	29.657	29.639	61.3	49.6	54.6	51.3	52.1	50.0	W	1.5	Variable	0.5	.14	1.5 W	Wly	9.6i-cu.	2 W	2.6i-cu.	2.6i-cu.	31
Sums.	924.150	924.123	2038.3	1584.1	1817.6	1664.3	1716.4	1612.2	65.75	61.75	2.82	2.82	2.82	207	203.1	6.6	6.6	6.6	6.6	
"Corrected Means."	29.811	29.810	65.8	51.1	58.6	53.7	55.4	52.0	2.12	1.99	2.82	2.82	2.82	6.7	6.6	6.6	6.6	6.6	6.6	
No. of Columns.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			

BAROMETER, "corrected Mean" = 29.811

at 9 h. ....

"Corrected Mean" at 20 h. 45 m. ... = 29.810

Mean, reduced to 32°, and Sea-level, = 29.811

Highest corrected Reading at 20.45 = 30.282

Universal Time, on the 30.7. ...

Lowest corrected Reading at 14.15 = 29.156

Universal Time, on the 14.7. ...

Difference, or Monthly Range, ... = 1.126

S. - R. THERMOMETERS

(in shade, &amp;c.)

Highest in Month (corrected for Index Errors) on the 2.7. ... = 78.5

Lowest in Month, (corrected for Index Errors), on the 9.7. ... = 44.1

Difference, or Monthly Range, ... = 34.4

"Corrected Mean" of all the Highest, (Col. 3), ... = 65.8

"Corrected Mean" of all the Lowest, (Col. 4), ... = 51.1

Difference, or Mean Daily Range, ... = 14.7

Calculated Mean Temperature of Month, ... = 58.4

HYGROMETER, "Corrected

Mean" of 9 h. and 21 h.

Reading of Dry Bulb (Cols. 5 and 7), ... = 57.0

"Corrected Mean" of 9 h. and 21 h.

Reading of Wet Bulb (Cols. 6 and 8), ... = 52.8

†† Computed Temperature of Dew-Point, ... = 48.9

†† Do. Elastic Force of Vapour, ... = 3.46

†† Relative Humidity (Saturation = 100), ... = 74

RAIN fell on 20 Days; Amount, ... = 2.82 Inches.

WIND.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
9 h.	2	3	1	1	2	18	3	1	2.12	
21 h.	1	4	6	2	4	1	2	1.99		
Mean.	2	0	3	4	0	2	16	2	2.06	4.24

NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	m.	denotes meteor.
ci.	" cirrus.	ms.	" meteors.
ci-cu.	" cirro-cumulus.	n.	" nimbus.
ci-st.	" cirro-stratus.	r.	" rain.
cu.	" cumulus.	h. r.	" heavy rain.
cu-f.	" cumulo-form.	c. h. r.	" continued heavy rain.
cu-st.	" cumulo-stratus.	st.	" stratus.
d.	" dew.	sc.	" sleet.
f.	" fog.	al.	" snow.
fr.	" frost.	s.	" solar halo.
h. fr.	" hoar-frost.	sq. ha.	" squall.
h.	" haze.	sq.	" squalls.
h. d.	" heavy dew.	t.	" thunder.
h.	" hail.	t. s.	" thunder storm.
l.	" lightning.	w.	" wind.
li. cl.	" light clouds.	g.	" gale of wind.
li. sh.	" light showers.	n. d.	" not discernible.
lu. co.	" lunar corona.		
lu. ha.	" lunar halo.		

TABLE FOR ESTIMATING FORCE OF WIND.

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

\* Where an asterisk appears in Columns 3 and 4, the Highest Temperatures for the 24 hours (preceding 21 h.) were registered during the Night, and the Lowest Temperatures during the Day.

†† These Hygrometrical Deductions are calculated from Glaisher's Hygrometrical Tables, Sixth Edition.

Observations made and Return verified by

Greatest daily Range = 24.3 on the 1st

(Signed)

James Bolam &amp; George Redpath.

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Leila  
July 15/12

## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *August* 188*6*; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✕, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked ✕, with a Fortin Standard.

Days of Month.	BAROMETER, Corrected and Reduced to 32° and Sea Level.		SELF- REGISTERING THERMO- METERS, In Shade 4 feet above Grass.		HYGROMETER. Kew No. 33,647.8.				WIND.				RAIN.  Amount in inches.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.								
	9 h.		20 h. 45 m.		9 h.				21 h.					9 h.		21 h.												
	Inches.		Inches.		Max. Min. Kew No. Kew No. 22,241 22,218				Dry bulb. Wet bulb. Dry bulb. Wet bulb.					Direction Force, 0—6.		Direction Force, 0—6.					Velocity (0—6), and Direction.		Amount, (0—10), and Species.		Velocity (0—6), and Direction.		Amount, (0—10), and Species.	
1*	29.652	29.633	60.8	45.3	54.7	47.7	50.8	46.8	W	2.5	W	2.25	0.00	2 W	1 Cu.	2 W	2 Cu. above horizon.	Fine, clear, sunny.	1									
2	29.666	29.861	61.8	45.6	55.9	49.0	51.5	47.0	W	2.25	W	2.0	.00	2 W	2 Cu.	2 W	2 Cu.	Fine, sunny; sh. ds. at 15h. and 17h.	2									
3	30.027	30.093	64.0	43.0	54.1	46.3	54.8	49.7	W	1.5	W	1.5	.00	2 W	1 Cu.	1 W	8 Cu.	Fine, sunny.	3									
4	30.129	30.081	61.7	45.3	54.8	50.6	52.9	51.9	W	1.5	W	0.5-1	.00	1 W	1 Cu. m. h. a.	1.5 SE	2 Cu.	Fine; mostly sunny; rather cloudy after 15h.	4									
5	29.978	29.775	67.9	45.0	56.3	51.2	57.6	55.0	SE	1.0	Variable	0.5	.06	2 W	4 Cu.	2.5 W	10 Cu. bi-st. rae.	Fine till 16h., then shower.	5									
6	29.809	29.820	64.0	55.6	58.7	55.1	58.7	56.1	W	3.0	W	2.25	.00	2 W	10 Cu.	2.5 W	26 Cu. bi-st. rae.	Mostly cloudy; light ds. about noon.	6									
7	29.690	29.834	66.5	53.3	62.5	60.8	57.7	54.1	W	2.0	W	2.25	.03	2.5 W	10 Cu. rae.	2.5 W	3 Cu.	Cloudy; with sunny inters.; sh. between 8h. & 10h.	7									
8*	29.847	29.887	65.3	55.4	59.7	54.8	57.1	52.9	W	2.5	W	2.25	.00	2.5 W	10 Cu.	2 W	7 Cu.	Fine, cloudy; sunny at times.	8									
9	29.906	29.887	66.9	51.7	58.5	53.1	54.8	50.9	W	2.25	W	2.0	.00	2 W	10 Cu.	2 W	2 Cu. (lrm.)	Fine; mostly cloudy; sunny intervals during afternoon.	9									
10	29.762	29.577	60.0	50.7	55.7	53.1	51.9	50.9	SE	2.0	SE	1.0	.33	1.5 W	7 Cu.	2 W	10 Cu.	Fine till 12h., then shower; t.s. from 13h. till 15h., with h. r.	10									
11	29.655	29.749	61.4	47.6	55.6	49.9	52.8	50.0	W	2.5	W	2.25	.05	2.5 W	7 Cu.	2 W	7 Cu.	Mostly sunny; sh. between 12h. and 13h.	11									
12	29.747	29.640	63.0	49.8	56.3	51.3	54.9	53.9	W	3.35	Variable	0.5	.02	3 W	7 Cu.	2.5 W	10 Cu.	Cloudy; sunny inters. till abt 14h.; sh. aft. 14h. 30m.	12									
13	29.503	29.622	56.2	52.6	55.6	53.9	53.8	52.2	NE	1.5	NE	2.5	.05	n. d.	10 Cu. bi-st.	2.5 W	10 Cu. rae.	Overcast; drizzling sh. after 19h. 45m.	13									
14	29.839	29.967	58.9	49.5	54.2	50.7	54.5	50.6	S	1.5	W	2.25	.01	2 W	7 Cu.	2 W	3 Cu.	Fine; cloudy till 13h., then sunny; l. h. a. at 22h.	14									
15*	29.884	29.634	67.1	45.1	62.9	56.0	62.0	58.9	SE	2.25	SE	3.35	.00	3.5 W	2 Cu.	n. d.	10 Cu. bi-st. chiefly.	Mostly cloudy; equally after 18h.	15									
16	29.535	29.617	64.8	56.9	60.0	54.9	56.9	54.3	W	2.5	W	2.25	.02	2.5 W	2 Cu. rae.	2 W	8 Cu.	Fine; rather cloudy; sunny at times.	16									
17	29.887	30.072	65.0	53.4	60.5	55.6	53.8	51.7	W	2.0	SE	1.0	.00	2.5 W	8 Cu.	1.5 W	6 Cu.	Fine; cloudy, with sunny intervals.	17									
18	30.139	30.104	62.3	51.1	57.7	53.6	59.7	58.6	W	1.5	W	2.25	.00	2 W	10 Cu. h.	n. d.	10 n.	Cloudy; with hazy; damp at times after noon; drizz. sh. at 24h.	18									
19	30.169	30.254	60.1	55.8	58.1	57.1	56.8	54.9	W	1.2	W	1.0	.04	2 W	10 Cu. r. h.	2.5 W	7 Cu.	Cloudy; drizz. sh. from 8h. till aft. 10h.; sunny aft. 16h.	19									
20	30.148	30.087	70.8	51.9	65.1	59.3	58.7	55.9	W	3.0	W	2.5	.00	2.5 W	3 Cu.	n. d.	8 Cu.	Morning, h. d.; day fine, sunny at times; sh. ds. at 13h.	20									
21	30.152	30.160	59.8	52.6	56.8	53.1	52.8	51.4	W	2.0	Variable	0.5	.01	n. d.	10 Cu. bi-st.	n. d.	10 Cu. bi-st.	Pull; drizzling sh. after 20h.	21									
22*	30.176	30.105	60.2	51.0	55.4	53.5	54.0	53.0	E	1.0	SE	0.5-1	.01	1.5 W	10 Cu.	0	0	Fine; hazy till about noon, then clear.	22									
23	30.059	29.926	69.7	49.3	53.3	52.9	56.8	55.4	SE	1.0	NE	1.0	.00	n. d.	10 Cu. bi-st. h.	n. d.	2 Cu.	Fine; morning hazy; day sunny.	23									
24	29.879	29.854	70.7	51.7	57.9	56.6	59.7	55.9	W	0.5-1	W	1-2	.00	2.5 W	4 Cu.	2 W	7 Cu.	Fine; morning, thick h.; day sunny; evening cloudy.	24									
25	29.840	29.747	65.2	55.8	60.0	55.6	60.6	55.9	W	2.25	SE	2.5	.00	2 W	10 Cu. bi-st.	2.5 W	8 Cu. bi-st. rae.	Fine, cloudy; short inters. of sunshine during aft. noon.	25									
26	29.792	29.803	65.0	56.0	58.7	55.4	58.5	55.9	W	2.5	W	2.25	.05	2 W	10 Cu. bi-st. rae.	Shy about 3-10h. covered with a.		Pull; l. sh.; faint a. at 24h.	26									
27	30.045	30.102	62.0	50.6	58.6	53.0	54.9	51.9	W	2.5	Calm	0	.00	2.5 W	5 Cu.	n. d.	10 Cu.	Fine; sunny at times.	27									
28	29.978	29.886	74.1	51.6	62.6	59.2	61.7	56.9	SE	1.0	W	2.5	.03	2.5 W	7 Cu.	n. d.	2 (lrm.) Cu.	Mostly sunny; sh. at 10h. 30m.	28									
29*	29.892	29.916	73.4	57.7	64.8	58.6	60.0	56.9	W	2.5	W	1.0	.00	2.5 W	2 Cu.	n. d.	2 Cu.	Fine, sunny.	29									
30	29.874	29.836	70.8	56.5	67.0	61.3	64.7	57.9	SE	2.25	SE	1-2	.00	2.5 W	4 Cu.	n. d.	2 Cu.	Fine, cloudy; slight sun at times.	30									
31	29.822	29.957	69.6	57.1	65.0	60.9	57.1	55.9	SE	3.0	SE	2.0	.05	2 W	6 Cu. bi-st.	n. d.	10 n.	Cloudy; very equally bet. 2h. & 6h., and l. sh. after 14h.; thus, drizzling r. at 24h.	31									
Sums.	18.167	18.453	12.13	14.14	16.15	14.14	15.14	14.14		6		7	0.76		227		205											
Corrected Means.	29.886	29.887	64.8	51.4	58.6	54.3	56.5	53.7		1.75		1.85	0.76		7.3		6.6											
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17											

## BAROMETER, "corrected Mean"

at 9 h. = 29.886

"Corrected Mean" at 20 h. 45 m. = 29.887

70 = 29.887

Mean, reduced to 32°, and Sea-level, = 29.887

Highest corrected Reading at 20.45<sup>m</sup> = 30.254

Universal Time, on the 19th = 30.254

Lowest corrected Reading at 7.18<sup>h</sup> = 29.503

Universal Time, on the 13th = 29.503

Difference, or Monthly Range, = 0.751

## S. - R. THERMOMETERS

(in shade, &amp;c.) = 74° 1

Highest in Month (corrected for Index Errors) on the 28th = 74° 1

Lowest in Month, (corrected for Index Errors), on the 3rd = 43° 0

Difference, or Monthly Range, = 31° 1

"Corrected Mean" of all the Highest, (Col. 3), = 64° 8

"Corrected Mean" of all the Lowest, (Col. 4), = 51° 4

Difference, or Mean Daily Range, = 13° 4

Calculated Mean Temperature of Month, = 58° 1

## HYGROMETER, "Corrected"

Mean of 9 h. and 21 h. = 57° 5

Reading of Dry Bulb (Cols. 5 and 7), = 57° 5

"Corrected Mean" of 9 h. and 21 h. = 54° 0

Reading of Wet Bulb (Cols. 6 and 8), = 54° 0

†† Computed Temperature of Dew-Point, = 50° 8

†† Do. Elastic Force of Vapour, = 371 4.45

†† Relative Humidity (Saturation = 100), = 78

RAIN fell on 14 Days; Amount, = 0.76 Inch.

WIND.	SUMMARY.										Mean Force.	Mean Velocity in miles per day.
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.			
9 h.	1	1	2	2	2	3	4	1		1.95		
21 h.			2	2		5	7	1	4	1.85		3.53
Mean.	0	2	2	1	1	4	18	1	2	1.88		3.53

## NOTATION USED IN GENERAL REMARKS.

a. denotes aurora.	m. denotes meteor.
ci. cirrus.	ms. meteors.
ci-cu. cirro-cumulus.	n. nimbus.
cu. cumulus.	r. rain.
cu-f. cumulo-form.	h. r. heavy rain.
cu-st. cumulo-stratus.	c. h. r. continued heavy rain.
d. dew.	st. stratus.
f. fog.	sc. scud.
fr. frost.	sl. sleet.
h.-fr. hoar-frost.	s. snow.
h. haze.	so. ha. solar halo.
h. d. heavy dew.	sq. squall.
hl. hail.	t. thunder.
l. lightning.	t. s. thunder storm.
li. cl. light clouds.	w. wind.
li. sh. light showers.	g. gale of wind.
lu. co. lunar corona.	n. d. not discernible.
lu. ha. lunar halo.	

## TABLE FOR ESTIMATING FORCE OF WIND.

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

\* Where an asterisk appears in Columns 3 and 4, the Highest Temperatures for the 24 hours (preceding 21 h.) were registered during the Night, and the Lowest Temperatures during the Day.

†† These Hygrometrical Deductions are calculated from Glaisher's Hygrometrical Tables, Sixth Edition.

Observations made and Return verified by

Greatest daily Range = 22.9 on the 5th

(Signed)

James Polson &amp; George Redpath.

W

21

22

23

24

25

26

1857-1858  
1858-1859  
1859-1860

Leith  
Aug 17 1888

## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *September* 18*86*; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✕, were made with a Kew Marine; all the 29 h. 45 m. Observations, and those marked ✕, with a Fortin Standard.

Days of Month.	BAROMETER, Corrected and Reduced to 32° and Sea Level.		SELF-REGISTERING THERMOMETERS, In Shade 4 feet above Grass.		HYGROMETER. Kew No. 23,647.8.				WIND.				RAIN.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.
	9 h.	20 h. 45 m.	Max. Kew No. 22241	Min. Kew No. 22218	9 h.		21 h.		Force, 0—6.	Direction	Force, 0—6.	Direction		9 h.		21 h.				
					Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.						Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.	Amount, (0—10), and Species.			
1	29.982	30.062	65.7	54.7	61.9	57.1	56.8	51.7	W	2-3	WSEW	2-2 1/2	0.03	2.5 W	2 Cu.	n.d.	10 St.	Fine, sunny; evening cloudy.	1	
2	30.089	30.176	62.5	57.8	56.6	52.3	51.8	49.9	W by S	2.0	SE	0.5	0.00	2 1/2 W by S	6 Cu.	0	0	Fine; mostly sunny; cloudless at 21 h.	2	
3	30.272	30.227	61.9	46.0	52.8	50.7	53.3	52.1	NE	1.0	E	1.0	0.00	0	0	0	0	Sunny, hazy; evening clear.	3	
4	30.180	30.042	62.5	46.4	55.9	53.9	55.9	54.5	NE	2.0	NE	2.0	0.00	0	0	n.d.	2 St.	Fine; morning, thick h.; day sunny, cloudless.	4	
5*	29.879	29.727	59.9	54.1	56.8	56.3	56.1	55.7	ENE	1-2	Calm	0	2.5	n.d.	10 n.	n.d.	10 Str. bi-st.	Cloudy, hazy; brisk r. from 8 h. till 9 1/2 h., & obs. at 10 h. after 10 h.	5	
6	29.716	29.602	63.1	51.0	60.5	54.8	58.7	55.9	SEW	2-2 1/2	SEW	2.5 3/4	0.07	2 1/2 W by S	3 bi-cu.	n.d.	10 Str. bi-st.	Cloudy, with sunny intervals during forenoon; obs. at 1 1/2 h. & 2 1/2 h.	6	
7	29.774	29.723	63.1	48.3	54.9	48.7	57.7	55.3	SEW	2.5-3	SW	2.5-3	0.02	2 1/2 W by S	7 bi-cu.	2.5 SW	10 Str. bi-st. & cu.	Cloudy; sunny at times; equally.	7	
8	29.497	29.521	67.0	52.0	62.7	57.0	52.0	49.9	S	3.5	WSEW	2.5-3 1/2	0.06	3 1/2 W	8 Cu.	2.5 SW	9 bi-st. & cu.	Equally; sunny at times; l. obs. during day; brisk obs. at 20 3/4 h.	8	
9	29.614	29.445	65.5	47.0	57.7	53.3	55.6	51.0	S	2-2 1/2	SW	2-3	0.18	2 1/2 SW	6 Cu.	2 SW	5 bi-st. & Cu.	Cloudy; very equally after 1 1/2 h., and heavy obs. after 1 1/2 h.	9	
10	29.531	29.689	60.7	47.8	51.1	48.2	51.8	48.3	W	2.0	W	2.0	0.11	2 1/2 W by S	3 bi-cu. & rae.	2 W	8 Cu. - Amount variable.	Fine, except obs. at 1 1/2 h.; mostly sunny.	10	
11	29.625	29.534	63.2	49.1	57.3	52.7	62.7	58.7	SEW	2-3	SW	3-4	0.04	2 1/2 SW	10 Cu. & rae.	2.5 SW	10 Str. bi-st.	Cloudy; very equally; obs. at intervals after 10 h. 15 m.	11	
12*	29.725	29.951	66.6	55.1	60.5	55.7	55.8	52.0	WSEW	2.5-3	WSEW	1-2	0.06	2 1/2 WSEW	2 Cu.	?	10 St.	Fine, sunny.	12	
13	29.991	29.889	60.1	50.8	53.3	52.1	60.1	58.9	ENE	1-1 1/2	SW	2-2 1/2	0.19	1 1/2 W	10 Str. bi-st.	2 SW	9 1/2 bi-cu.	at 2 1/2 h. - Dry-bulb 60° 1 and Mar. 59° 9.	13	
14	30.058	30.338	62.7	51.6	53.8	51.4	52.9	48.2	W by N	2.0	NE	2.5-3	0.10	0	0	1.5 N	8 Cu.	Rain till after 7 h. then fine; sunny after 8 h. 30 m.	14	
15	30.564	30.627	52.9	42.0	50.0	44.6	42.0	40.0	ENE	2 1/2	Variable	1.0	0.00	2 ENE	4 Cu.	0	0	Fine; sunny at times; very clear.	15	
16	30.593	30.479	56.7	36.1	44.1	42.5	46.9	44.0	Variable	0.5	Var. S.W.	0.5-1	0.00	n.d.	10 fog.	0	0	Morning, thick h., with h. fr.; day fine, sunny.	16	
17	30.412	30.334	56.0	38.1	47.8	45.2	51.1	48.3	W	1.0	SE	2.0	0.00	?	26 n. obs.	n.d.	10 Cu.	Fine; morning thick h.; day sunny till after 1 1/2 h. then cloudy.	17	
18	30.302	30.244	54.8	46.0	52.8	50.1	49.8	46.8	E	2.0	ESE	1-2	0.00	1 1/2 SE	6 Cu.	n.d.	10 St.	Cloudy; fine.	18	
19*	30.186	30.100	56.9	42.1	49.8	46.7	51.5	48.7	Variable	0.5	ESE	2.0	0.00	0	0	n.d.	10 St.	Fine; morning thick h., day sunny; evening cloudy.	19	
20	30.042	29.958	53.0	48.6	51.6	47.9	50.5	47.8	NE	2-2 1/2	ENE	3.0	0.00	2 1/2 ENE	10 Cu.	3 ENE	10 Str. & rae.	Fine, cloudy; sunny intervals about 1 1/2 h.	20	
21	29.933	29.938	52.5	46.0	46.9	43.2	48.8	46.0	NE	3.0	NE	3.0	0.02	2.5 ENE	10 Cu.	n.d.	2 St.; amount becoming variable.	Cloudy, with sunny intervals during afternoon; obs. drift. at times.	21	
22	30.004	30.088	54.5	47.1	50.6	45.5	47.8	42.5	NE	3.0	NE	2.5-3	0.00	2.5 ENE	9 Cu.	n.d.	2 Str. & St.	Fine; sunny at times.	22	
23	30.122	30.142	53.1	41.4	46.7	42.5	51.5	47.1	W	2.0	W	1-1 1/2	0.00	2.5 W	10 Cu. & rae.	n.d.	10 St.	Cloudy; rather hazy.	23	
24	30.134	30.090	52.9	47.3	50.0	46.8	49.5	46.1	W	1.5	W	1.5	0.00	2 1/2 W	10 Cu.	n.d.	10 St.	Cloudy; hazy.	24	
25	30.019	29.884	55.0	47.1	51.8	48.4	49.8	48.9	S	0.5	SEW	1.0	0.06	2 1/2 WSEW	9 Cu.	n.d.	10 Str. bi-st.	Cloudy; obs. after 1 1/2 h.; rather hazy.	25	
26*	29.940	29.933	61.8	48.8	53.0	49.9	49.9	47.0	W	2-2 1/2	SW	2.0	0.09	2.5 W by S	0.5 Cu. n. obs.	n.d.	7 Str. n. obs.	Fine, sunny.	26	
27	29.407	29.545	59.3	47.9	59.2	57.1	49.8	47.0	W	3.0	W	3-4	0.23	2 1/2 W by S	10 Str. bi-st. & rae.	3.5 W	3 So.	Strong squ. from 3 1/2 h. till 6 h.; day squ. with sunny intervals.	27	
28	29.717	29.797	56.1	48.3	49.5	47.0	50.1	47.9	W	3.0	W	3-4	0.15	2 1/2 W by S	10 Cu. n. obs.	n.d.	2 St. - amount variable.	Equally; showers, with sunny intervals.	28	
29	29.703	29.589	61.5	47.1	48.3	47.9	60.6	58.5	SE	1.0	W	2.5-3	0.75	n.d.	10 fall. n. obs.	n.d.	10 n.	Overcast; nearly constant rain.	29	
30	29.672	29.588	67.7	59.0	63.8	60.6	60.7	56.9	SW	2-2 1/2	SW	3.5	0.06	2.5 W	10 Cu.	3.5 SW	6 Cu.	Fine; sunny at times; evening equally.	30	
Sums.	898.683	898.262	1789.2	1438.6	1611.7	1510.1	1591.5	1505.6		56.75		68.0	2.47		187		200			
Corrected Means.	29.956	29.942	59.6	53.7	50.3	53.0	50.2			1.89		2.27	2.47		6.2		6.7			
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			

Kew Observations made at Leith, during the month of September 1886. The observations were made at the Leith Observatory, which is situated on the Leith Waterfront, and is under the management of the Leith Harbour Board. The observations were made by Mr. J. R. B. and Mr. J. R. B. and were made with a Kew Marine and a Fortin Standard.

## BAROMETER, "corrected Mean"

at 9 h. = 29.956

"Corrected Mean" at 20 h. 45 m. = 29.942

Mean, reduced to 32°, and Sea-level, = 29.949

Highest corrected Reading at 22 h. = 30.637  
Universal Time, on the 15th. = 6.27Lowest corrected Reading at 27 h. = 29.364  
Universal Time, on the 27th. = 4.07

Difference, or Monthly Range, = 1.273

## S. - R. THERMOMETERS

(in shade, &amp;c.) = 67.7

Highest in Month (corrected for Index Errors) on the 30th. = 67.7

Lowest in Month, (corrected for Index Errors), on the 16th. = 36.1

Difference, or Monthly Range, = 31.6

"Corrected Mean" of all the Highest, (Col. 3), = 59.6

"Corrected Mean" of all the Lowest, (Col. 4), = 48.0

Difference, or Mean Daily Range, = 11.6

Calculated Mean Temperature of Month, = 53.8

## HYGROMETER, "Corrected"

Mean of 9 h. and 21 h. = 53.4

Reading of Dry Bulb (Cols. 5 and 7), = 53.4

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), = 50.2

Computed Temperature of Dew-Point, = 47.0

Do. Elastic Force of Vapour, = 0.322

Relative Humidity (Saturation = 100), = 79.3

RAIN fell on 18 Days; Amount, = 2.47 Inches.

WIND.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
9 h.	1	4	4	1	6	1	1	1	2	1.89
21 h.	1	3	4	3	1	6	8	1	3	2.27
Mean.	1	3	4	2	3	4	1	0	2	2.08

## NOTATION USED IN GENERAL REMARKS.

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

## TABLE FOR ESTIMATING FORCE OF WIND.

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

\* Where an asterisk appears in Columns 3 and 4, the Highest Temperatures for the 24 hours (preceding 21 h.) were registered during the Night, and the Lowest Temperatures during the Day.

† These Hygrometrical Deductions are calculated from Glaisher's Hygrometrical Tables, Sixth Edition.

Observations made and Return verified by

greatest daily Range = 20.6 on the 16th

(Signed)

James Bolam &amp; George Redpath.

January 1st 1886

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Leith  
September 1886

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## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *October* 18*86*; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✕, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked ✕, with a Fortin Standard.

Days of Month.	BAROMETER, Corrected and Reduced to 32° and Sea Level.		SELF-REGISTERING THERMOMETERS, In Shade 4 feet above Grass.		HYGROMETER, Kew No. 23, 647 x 8.				WIND.				RAIN.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.	
	9 h.	20 h. 45 m.			9 h.		21 h.		9 h.		21 h.			9 h.		21 h.					
	Inches.	Inches.	Max. Kew No.	Min. Kew No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force, 0—6.	Direction.	Force, 0—6.		Amount in inches.	Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.				Amount, (0—10), and Species.
			22,241	22,218																	
1	29.570	29.488	61.8	49.7	57.3	52.9	50.9	49.1	SSW	2.0	Variable	0.5	0.14	24.5W	96uf. l. d. n. d.	10 n.	Cloudy; clearing after 10h. 30 m.	1			
2	29.647	29.940	60.6	47.4	51.6	48.1	51.1	48.9	WSW	2.5	S	1.0	.21	2Wly	0.56n. on. n. d.	10 n.	h. r. at 3h. 30 m.; day fine, sunny.	2			
3*	29.992	30.030	60.6	48.9	53.3	50.9	56.1	53.0	S. var.	1.0	SE	1.0	.00	1.5 SW	106uf. l. d. n. d.	10 6uf.	Cloudy; fine.	3			
4	30.032	29.999	57.4	50.8	54.1	53.2	55.3	54.9	ESE	2.0	ESE	2.0	.21	2.5 SSE	10.56uf. d. n. d.	3 st.	amount becoming variable.	4			
5	29.949	29.817	56.8	52.9	55.0	54.7	53.8	53.6	ENE	2.0	E	2.4	.01	n. d.	10 2.	n. d.	10 2. haze.	5			
6	29.808	29.724	55.0	52.9	54.2	53.9	53.8	53.3	ENE	1.5	Ely	1.0	.28	n. d.	10 2.	n. d.	10 2.	Thick h.; h. r. about 17h.; brisk shs. aft. 18h.; L at int. aft. 18h.	6		
7	29.763	29.869	59.3	52.1	54.6	51.8	52.8	51.9	WSW	1.5	SEly	0.5	.01	1.5 S	16uf. bi. cu. 1.5ly.	3 6uf. cu.	Fine; sunny till noon, then cloudy.	7			
8	29.902	29.939	60.9	50.6	56.4	54.3	50.6	49.0	ESE	1.5	calm	0	.00	2.5 Wly	1 6uf. st.	n. d.	7 st. haze.	8			
9	29.789	29.333	58.1	39.9	47.0	46.0	54.8	51.9	ENE	1.5	SE	2.4	.00	0	0	n. d.	10 6uf. bi. st.	Morn. h. d.; day fine, mostly sunny; clear, brisk n. aft. 21h.	9		
10*	29.411	29.523	55.4	45.4	49.5	46.7	45.9	43.0	W	2.5	W	2.5	.08	2.4 Wly	2 6uf. v. cu.	0	0	Fine, sunny.	10		
11	29.656	29.433	56.2	39.7	48.0	45.5	56.2	51.3	WSW	2.0	SW	3.5	.05	2 W	1 6uf. bi. d.	2.4 Wly	1 se.	Sunny till about noon; clear, shs. aft. 13h. 40 m.; ring.	11		
12	29.124	29.050	57.5	47.0	53.3	51.7	47.4	46.4	SW	2.5	W	1.5	.27	2.4 SW	10 n.	2 Wly	2 st.	Overcast; nearly cond. r. from 6h. till noon; shs. aft. 14h.	12		
13	29.162	29.272	53.5	43.0	46.7	44.7	45.4	43.0	W	1.5	W	2.0	.00	0	0	2 Wly	1 6uf. amount increasing.	Fine, sunny; shs. at 12h. and 15h.	13		
14	29.482	29.511	55.3	43.4	48.6	46.5	45.8	44.0	WSW	2.0	SW	1.2	.00	0	0	0	0	Fine; morn. very h. d.; day mostly sunny; l. h. at 21h.	14		
15	29.055	28.786	52.3	43.7	49.2	47.1	52.3	51.9	ESE	3.0	E	4.5	.11	3.6 SSE	10 6uf. d. n. d.	10 fall.		Heavy sqs.; shs. at intervals after 5h.	15		
16	29.019	29.139	53.8	49.9	53.0	51.2	49.9	49.9	NE	3.4	SE	0.5	.36	3.4 ENE	10 6uf. 2.5E: 4 6uf. cu. r. d. amount increasing.		Cloudy; morn. sqs.; frequent heavy shs. during afternoon.	16			
17*	29.196	29.554	52.3	45.9	50.7	49.8	51.0	48.9	E	3.5	ENE	3.5	.59	3.6 NE	10 6uf. r. n. d.	10 6uf.		Cloudy; sqs. accompanied by heavy shs.	17		
18	29.717	29.803	51.3	47.9	48.8	45.3	50.3	47.9	Wly	2.2	ENE	2.5	.00	2.4 Wly	10 6uf. r. d.	n. d.	10 st.	Cloudy; li. shs. about 17h.	18		
19	29.818	29.810	50.3	47.1	48.8	46.5	48.2	47.4	NE	2.5	NE	2.5	.06	2.3 ENE	10 6uf. r. d.	n. d.	10 6uf. amount becoming variable.	Cloudy, clearing. - A. at 21h.	19		
20	29.689	29.759	55.3	46.9	51.0	50.4	49.0	47.9	E	1.5	W	0.5	.10	2 SE	10 6uf.	n. d.	3 st.	Cloudy till about noon, then sunny; shs. till 7h.; wry. hazy.	20		
21	29.845	29.908	50.9	47.0	48.8	47.7	47.8	46.2	W	1.0	WSW	1.5	.27	6uf. cu. at times	10 2.	n. d.	8 st.	Thick h.; cond. r. from 9h. till 11h. and shs. aft. 16h.	21		
22	29.922	30.004	49.0	40.6	40.9	40.1	41.9	41.0	W	1.0	SE	0.5	.00	0	0	0	0	Morning thick h.; day fine, sunny; cloudless at 21h.	22		
23	30.199	30.339	50.0	37.0	45.7	44.4	49.2	47.9	E	0.5	E	1.5	.04	2.5 E	8 6uf.	n. d.	2 st. amount increasing.	Moderately cloudy; shs. between 12h. and 13h. and aft. 18h.	23		
24*	30.464	30.542	51.9	43.2	47.2	47.0	47.9	44.4	SE	0.5	SE	2.0	.01	2 SE	1 6uf.	n. d.	10 st.	Cloudy, with sunny inters. forenoon; li. shs. alt. noon.	24		
25	30.514	30.436	50.7	45.4	47.8	45.4	46.9	45.9	E	1.5	ESE	1.5	.00	2 SE	10 6uf.	n. d.	4 st.	Fine, cloudy.	25		
26	30.397	30.309	50.9	41.8	46.9	45.3	47.8	45.0	SE	1.5	ESE	2.4	.03	2 ESE	10 6uf.	n. d.	10 st.	Cloudy, with sunny intervals; li. shs.	26		
27	30.143	30.050	49.4	46.8	48.0	45.0	48.8	46.0	E	2.5	E	2.5	.00	2.5 ESE	10 6uf.	n. d.	10 st.	Cloudy.	27		
28	30.112	30.148	54.9	46.0	49.8	47.5	46.0	45.0	ESE	1.5	SE	1.0	.00	1.5 W	8 6uf.	n. d.	8 st.	Fine; sunny at times.	28		
29	30.061	30.179	56.0	45.4	47.8	47.2	54.6	50.9	SE	1.0	SW	1.5	.22	n. d.	10 n.	2 SW	2 st.	Cloudy; r. till 10h.; sunny inters. about noon; wry. clear.	29		
30	30.245	30.135	56.8	47.6	51.8	50.9	47.8	46.9	SW	1.0	SEly	0.4	.16	n. d.	10 n.	0	0	Rain till 10h. 30 m., then fine.	30		
31*	29.887	29.862	57.7	45.8	52.6	50.9	47.2	45.1	Variable	0.4	calm	0	.02	2.5 W	6uf. r. d.	n. d.	4 st.	Fine; mostly sunny.	31		
Sums.	29.570	29.688	15.15	15.14	15.14	15.14	15.14	15.14	55.0		55.5		3.23		229.5		195				
"Corrected Means."	29.793	29.796	54.9	46.2	50.3	48.5	49.9	48.1	1.71		1.79		3.23		7.4		63				
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				

BAROMETER, "corrected Mean" = 29.793  
at 9 h. ....

"Corrected Mean" at 20 h. 45 m. ... = 29.796

70 ft. = 29.797  
Mean, reduced to 32°, and Sea-level, = 29.794Highest corrected Reading at 24h. = 30.542  
Universal Time, on the 24th ...Lowest corrected Reading at 15h. = 28.778  
Universal Time, on the 15th ...

Difference, or Monthly Range, ... = 1.756

## S. - R. THERMOMETERS

(in shade, &c.) = 61.8  
Highest in Month (corrected for Index Errors) on the 1st ...

Lowest in Month, (corrected for Index Errors), on the 23rd ... = 37.0

Difference, or Monthly Range, ... = 24.8

"Corrected Mean" of all the Highest, (Col. 3), ... = 54.9

"Corrected Mean" of all the Lowest, (Col. 4), ... = 46.2

Difference, or Mean Daily Range, ... = 8.7

Calculated Mean Temperature of Month, = 50.5

## HYGROMETER, "Corrected"

Mean "of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), ... = 50.1

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), ... = 48.3

†† Computed Temperature of Dew-Point, = 46.4

†† Do. Elastic Force of Vapour, ... = 0.315

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

RAIN fell on 21 Days; Amount, ... = 3.23 Inches.

WIND.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
9 h.	12	12	3	2	2	8	1	1	1.71	
21 h.	1	10	8	2	3	5	2	1	1.79	
Mean.	0	2	11	6	2	3	6	0	1.75	3.06

## NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	m.	denotes meteor.
ci.	" cirrus.	ms.	" meteors.
ci. cu.	" cirro-cumulus.	n.	" nimbus.
ci. st.	" cirro-stratus.	r.	" rain.
cu.	" cumulus.	h. r.	" heavy rain.
cu. f.	" cumulo-form.	c. h. r.	" continued heavy rain.
cu. st.	" cumulo-stratus.	st.	" stratus.
d.	" dew.	sc.	" scud.
f.	" fog.	sl.	" sleet.
fr.	" frost.	s.	" snow.
h. fr.	" hoar-frost.	so. ha.	" solar halo.
h.	" haze.	sq.	" squall.
h. d.	" heavy dew.	sgs.	" squalls.
hl.	" hail.	t.	" thunder.
l.	" lightning.	t. s.	" thunder storm.
li. cl.	" light clouds.	w.	" wind.
li. sh.	" light showers.	g.	" gale of wind.
lu. co.	" lunar corona.	n. d.	" not discernible.
lu. ha.	" lunar halo.		

## TABLE FOR ESTIMATING FORCE OF WIND.

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

\* Where an asterisk appears in Columns 3 and 4, the Highest Temperatures for the 24 hours (preceding 21 h.) were registered during the Night, and the Lowest Temperatures during the Day.

†† These Hygrometrical Deductions are calculated from Glaisher's Hygrometrical Tables, Sixth Edition.

Observations made and Return verified by

Greatest daily Range = 18.2 on the 9th

(Signed)

James Bolam &amp; George Redpath.

Leith  
Oct 1888

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## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *November* 1886; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✱, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked ✱, with a Fortin Standard.

Note.—All the 9 h. Barometric Observations in this Schedule, except those marked X, were made with a New Marine; at the 20 h. 45 m. Observations, and those marked X, with a Fortin Standard.																					
Days of Month.	BAROMETER, Corrected and Reduced to 32° and Sea Level.		SELF-REGISTERING THERMOMETERS, In Shade 4 feet above Grass.		HYGROMETER. Kew No. 33.647.8.				WIND.				RAIN.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.	
	9 h.	20 h. 45 m.	Max. Kew No. 22.241	Min. Kew No. 22.218	9 h.		21 h.		9 h.		21 h.			Amount in inches.	9 h.		21 h.				
					Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force, 0—6.	Direction.	Force, 0—6.			Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.				Amount, (0—10), and Species.
1	29.748	29.813	53.1	46.3	48.8	46.0	48.9	45.4	S	2.0	SW	2.0	0.01	2 1/4	SW	10 for bi-st. 2 SW by 8 st. - amount variable.	Fine, except sho. between 8 1/2 h. and 9 h.; sunny aft. 12 h.	1			
2	29.932	30.050	51.9	42.9	48.0	44.7	46.9	43.0	WSW	2.5	SW	2.5	0.1	0	0	0	0	Showers at 3 h.; day fine, sunny.	2		
3	29.568	29.474	55.6	44.2	52.0	48.0	44.2	41.9	S	4.0	W	2.5	2.3	25.4	3.3	SW	9 for bi-st. 2 W 0.5 Cu. Bar. at 14 1/2 h. 29.271.	Cloudy, sho. aft. 12 h., and h. v. from 14.40 till aft. 16 h.; r. m. s. g. 3	3		
4	29.547	29.531	48.1	41.6	43.9	41.0	43.0	40.0	WSW	2.5	WSW	2.25	0.3	2 WSW	1 Cu. n. d.	2 (lar) St	Moody sunny; li. passing sho. aft. 14 h. 45 m.	4			
5	29.438	29.215	45.9	37.1	39.3	37.8	45.9	44.0	S	1.5	ENE	3-3.5	2.9	0.5	SW by 10 thick st. 3.5 ENE (sc.) 10 n. r. r.	Cloudy; li. sho. bet. 12 & 13 h., & const. h. aft. 18 h.; squally	5				
6	29.162	29.309	46.1	43.5	45.6	41.6	44.9	40.0	N	3.5	N	2.5	4.5	3.7	NE	10 Cu. 2.5 (sc.) 10 st. Bar. at 6 1/2 h. 29.125.	Squally; h. v. till after 4 h.; day fine, cloudy.	6			
7*	29.557	29.606	44.9	37.7	40.2	36.0	37.9	34.3	W	2.5	SW	2.0	0.0	2.7	W	2 (lar) Cu. 0	Fine, sunny; cloudy aft. 15 h. - Sea. ha. at 21 h.	7			
8	29.433	29.339	49.1	37.1	45.8	43.0	44.9	43.0	WSW	2 1/4	SW	2.0	0.0	2 WSW	10 for bi-st. 2 W 0.5 Cu. Bar. at 14 1/2 h. 29.271.	Cloudy; rather hazy; drizz. sho. at 21 h.	8				
9	29.433	29.601	48.0	40.6	43.0	41.1	46.9	44.3	S	1.0	E	2 1/2	0.1	0	0	2 ENE	2 Cu. - becoming overcast at 21 h. 12 m.	Fine, sunny at times; brisk sh. at 21 1/2 h., & hl. at 22 1/2 h.	9		
10	29.648	29.708	47.0	43.0	44.8	41.5	45.2	43.0	N	2.0	N	2-2.5	1.0	2 1/4	NE	10 for bi-st. 2.2 W 0.5 Cu. Bar. at 14 1/2 h. 29.271.	Cloudy; li. sho. bet. 10 & 11 h., and after 18 h. 30 m.	10			
11	29.789	29.568	46.5	42.1	44.3	41.0	42.1	39.2	N	2 1/4	W	2-2 1/4	0.0	2 ENE	7 for bi-st. chiefly 1 st. n. d.	10 thick st.	Fine, cloudy; evening hazy; brisk v. aft. 21 h. 45 m.	11			
12	29.449	29.439	42.9	36.5	37.9	37.2	42.9	41.6	W	1.5	W	0.5	3.2	2.7	N	10 for bi-st. 2.2 W 0.5 Cu. Bar. at 14 1/2 h. 29.271.	Brisk v. during previous night; day cloudy, hazy; drizz.	12			
13	29.334	29.329	47.9	38.8	42.9	41.2	44.2	42.1	W	2.0	W	2.0	0.0	2.5	W	10 for bi-st. 2.2 W 0.5 Cu. Bar. at 14 1/2 h. 29.271.	Fine; cloudy till noon, then mostly sunny.	13			
14*	29.465	29.397	45.9	37.3	38.1	37.0	45.9	45.0	W	1.5	SW	1-2	0.8	0	0	n. d.	10 n.	Morning, h. fr.; day thick h.; li. v. after 16 h.	14		
15	29.276	29.158	52.4	45.2	51.8	49.4	50.1	47.3	S	2.0	SW	2-2.5	0.3	2.5	SW	10 for bi-st. 2.2 W 0.5 Cu. Bar. at 14 1/2 h. 29.271.	Cloudy; light showers.	15			
16	29.410	29.385	50.1	38.2	39.2	37.0	40.9	38.1	W	2.5	WSW	2-2.5	0.1	0	0	2.5	WSW	5 st. - amount variable.	16		
17	29.359	29.482	45.3	38.7	39.9	38.2	41.9	39.0	W	2.0	W	2.5	0.1	0	0	0	0	Fine, sunny.	17		
18	29.889	30.034	45.4	37.3	39.7	35.8	38.0	36.9	W	2 1/4	Variable	0.5	0.0	0	0	n. d.	9 st. + h.	Fine, sunny; cloudless during day; evg. thick h., with	18		
19	29.958	30.027	56.8	37.5	48.3	47.4	54.8	51.9	Variable	1.0	SW	2-2.5	2.2	2.3	WSW	6 st. + ce. n. d.	10 st.	R. till aft. 6 1/2 h., & thick f. till aft. 8 h.; day cloudy, with	19		
20	30.040	30.099	57.1	52.1	53.7	49.9	52.4	49.0	WSW	2.5	W	2-2.5	0.1	3.5	W	9 ce. n. d.	10 st.	Fine, cloudy; sunny at times; li. sho. at 21 h.	20		
21*	30.403	30.414	52.4	35.2	37.2	36.2	36.9	36.0	Variable	0.5	SW	1.0	0.0	0	0	0	0	Fine, hazy; morning and evening, h. fr.	21		
22	30.374	30.415	48.0	33.9	38.1	38.0	45.9	45.0	SW	1.0	Calm	0	0.1	n. d.	10 Fog	n. d.	10 st.	Fog - very dense in the morning.	22		
23	30.485	30.577	51.9	45.0	46.1	44.6	51.1	48.9	W	2.0	W	2-2 1/4	0.1	0	0	0	0	Fine, mostly sunny.	23		
24	30.623	30.661	52.1	48.9	51.3	48.7	49.6	47.2	W	2.5	W	2 1/4	0.0	2 ENE	7 for bi-st. n. d.	1 st.	1 st.	Fine, sunny.	24		
25	30.626	30.557	51.9	45.2	47.3	45.0	46.1	44.3	W	2.0	W	1.5	0.0	0	0	0	0	Fine, sunny; evening, heavy dew.	25		
26	30.513	30.454	46.1	35.8	37.9	37.2	44.3	42.5	W	2.0	W	0.5	0.0	0	0	n. d.	10 st. + h.	Thick haze.	26		
27	30.432	30.293	46.2	40.9	43.1	41.9	46.2	44.0	Variable	0.5	W	2.5	0.0	n. d.	10 Fog	n. d.	10 st.	Morning, thick f.; day cloudy; hazy.	27		
28*	30.142	29.670	48.9	45.2	46.5	43.7	48.9	45.0	SW	2-2.5	SW	4.0	0.0	2.5	SW	10 Cu. n. d.	5 km. st.	Cloudy; squally after 16 h.	28		
29	29.363	29.305	50.1	41.2	44.9	42.0	41.2	39.0	W	3.0	W	3.0	0.17	n. d.	10 n.	n. d.	2 for st.	Changeable; showering; squally at times.	29		
30	29.505	29.734	42.5	35.8	41.3	37.0	35.9	32.0	W	2.5	W	2-2 1/2	0.0	2.7	W	16 Cu. n. d.	2 st. - clear faint.	Fine, sunny.	30		
Sums.	893.901	893.644	1470.1	1234.8	1320.9	1249.1	1348.0	1272.9		60.75		66.25	1.80			181		186.5			
"Corrected Means."	29.797	29.788	49.0	40.8	44.0	41.6	44.9	42.4		2.02		2.21	1.80			6.0		6.2			
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				

BAROMETER, "corrected Mean" = 29.797  
at 9 h. ...."Corrected Mean" at 20 h. 45 m. ... = 29.788  
70 fl. = 29.715  
Mean, reduced to 32°, and Sea-level, = 29.792Highest corrected Reading at 20.45 = 30.661  
Universal Time, on the 24thLowest corrected Reading at 6.2 = 29.162  
Universal Time, on the 6th

Difference, or Monthly Range, ..... = 1.499

## S. - R. THERMOMETERS

(in shade, &c.) = 57° 1  
Highest in Month (corrected for Index Errors) on the 20th

Lowest in Month, (corrected for Index Errors), on the 22nd = 33.9

Difference, or Monthly Range, ..... = 23.2

"Corrected Mean" of all the Highest, (Col. 3), ..... = 49.0

"Corrected Mean" of all the Lowest, (Col. 4), ..... = 40.8

Difference, or Mean Daily Range, ..... = 8.2

Calculated Mean Temperature of Month, = 44.9

## HYGROMETER, "Corrected"

Mean of 9 h. and 21 h. = 44° 4  
Reading of Dry Bulb (Cols. 5 and 7), ....."Corrected Mean" of 9 h. and 21 h. = 42.0  
Reading of Wet Bulb (Cols. 6 and 8), .....

# Computed Temperature of Dew-Point, = 39.2

# Do. Elastic Force of Vapour, = 240.276

# Relative Humidity (Saturation = 100), = 82

RAIN fell on 18 Days; Amount, ..... = 1.80 Inches.

WIND.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
9 h.	3					5	2	1	3	2.02
21 h.	2	2				9	5	2	2	2.21
Mean.	2	0	1	0	2	6	1	1	2	2.12 = 4.49 fl.

## NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	m.	denotes meteor.
ci.	" cirrus.	ms.	" meteors.
ci-cu.	" cirro-cumulus.	n.	" nimbus.
ci-st.	" cirro-stratus.	r.	" rain.
cu.	" cumulus.	h. r.	" heavy rain.
cu-f.	" cumulo-form.	c. h. r.	" continued heavy rain.
cu-st.	" cumulo-stratus.	st.	" stratus.
d.	" dew.	sc.	" squall.
f.	" fog.	sl.	" sleet.
fr.	" frost.	so.	" snow.
h. fr.	" hoar-frost.	so. ha.	" solar halo.
h.	" haze.	sq.	" squall.
h. d.	" heavy dew.	squ.	" squalls.
h. l.	" hail.	t.	" thunder.
l.	" lightning.	t. s.	" thunder storm.
li. cl.	" light clouds.	w.	" wind.
li. sh.	" light showers.	g.	" gale of wind.
lu. co.	" lunar corona.	n. d.	" not discernible.
lu. ha.	" lunar halo.		

## TABLE FOR ESTIMATING FORCE OF WIND.

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

Observations made and Return verified by

Greatest daily Range = 19.3 at the 19th

(Signed)

James Polson + George Redpath.

Leith  
Nov 1886

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## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *December* 18*86*; Distance from Sea, Half-Mile.

The Hours of Observation are of Universal Time, same as Greenwich Mean Time.

NOTE.—All the 9 h. Barometric Observations in this Schedule, except those marked ✱, were made with a Kew Marine; all the 20 h. 45 m. Observations, and those marked ✱, with a Fortin Standard.

Days of Month.	BAROMETER, Corrected and Reduced to 32° and Sea Level.		SELF-REGISTERING THERMO. METERS. In Shade 4 feet above Grass.		HYGROMETER. Kew No. 33,647 & 8.				WIND.				RAIN.	CLOUDS.				SPECIAL REMARKS.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, &c.	Days of Month.	
	9 h.	20 h. 45 m.	Max. Kew No. 22,241	Min. Kew No. 22,218	9 h.		21 h.		9 h.		21 h.			Amount in inches.	9 h.		21 h.				
					Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force, 0—6.	Direction.	Force, 0—6.			Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.				Amount, (0—10), and Species.
1	29.721	29.671	38.3	31.8	32.9	30.0	32.2	29.0	W	2.0	NE	4.5	0.16	0	0	n.d.	3 St.	Cloudless till about noon; thick & cast sky at 14 h. and	1		
2	29.879	29.956	33.0	26.6	27.4	2	28.9	2	W	2.0	W	15.2	00	0	0	n.d.	9 St. haze	Fine, sunny; nearly cloudless.	2		
3	29.914	29.675	39.0	26.1	34.4	34.2	39.0	36.2	W	3.0	W	3.5	00	2 W 1 W	9.6	n.d.	10 For bi-st.	Cloudy; evening, equally.	3		
4	29.616	29.917	41.7	35.3	37.9	36.1	36.0	33.0	W 1 W	2.0	W	2.0	08	2 W 1 W	1.6	n.d.	10 For bi-st.	R. sds. till about 6 h. and l. hl. sh. at 8 h.; cloudless aft. 9 h.	4		
5	29.745	29.420	52.3	35.7	44.3	41.9	52.3	50.0	W	2.5	W 1 W	3.4	01	3 W	10 For bi-st.	4.4	10 oc.	Cloudy; sdy at times aft. 14 h. and sds. aft. 17 h. 45 m.	5		
6	29.367	29.204	52.6	36.8	45.6	43.2	39.9	38.0	W	3.0	W	2.25	33	3.5 W	10 n. r. oc.	2 W	4 For bi-st.	and aft. 15 h. and h. r. sds. 17 h. 17 h.; T & L at 17 h.	6		
7	29.176	29.195	39.9	34.4	36.4	34.0	35.2	34.0	W 1 W	2.5	W 1 W	2.5	02	2.5 W 1 W	1.6	0	0	Variable; r. heavy sds. till 6 h. 45 m.; thick sds. at mids. till 10 h.	7		
8	28.111	27.671	38.9	32.0	35.1	34.3	37.0	36.1	S	2.3	E	2.5	5.23	3.35 W	1.5	3.8	NE	10 n. r. sds. Bar. at 19 h. 27.651.	8		
9	28.229	28.667	41.3	36.0	41.1	37.7	39.3	37.2	W 1 W	2.5	W	2.0	07	2.25 W	3.6	10 n. r. oc.	2 W 1 W	Cloudy; showers till about 7 h.	9		
10	28.998	29.264	41.9	36.0	38.2	36.1	37.0	35.8	W	2.5	W	2.25	00	0	0	0	0	Fine, sunny.	10		
11	29.154	28.985	39.1	33.6	35.7	34.8	38.2	37.9	E	2.0	SE	2.0	15	2.5 S	10 n.	1.5 W 1 W	10.6	Thick during aft. noon; r. commencing at 2 h. 50 m.	11		
12	29.087	29.424	40.8	34.2	36.7	36.1	34.9	33.1	W	2.0	W	0.5	48	1.5 W 1 W	10.6	0	0	Cast, r. sds. at mids. till 6 h. and 13 h. r. sds. at 7 h. 19 h.	12		
13	29.736	29.730	40.0	32.9	34.7	32.3	38.4	34.9	W 1 W	1.5	W	2.25	01	n.d.	10 Fog.	1.5 NE	10.6	Dr. constant r. till after 8 h.; day, cloudy, hazy.	13		
14	29.614	29.462	38.9	35.7	36.9	33.6	38.9	37.0	NE	3.0	E	3.0	10	2.7 W 1 W	10.6	n.d.	10 For bi-st.	Morning, thick h.; day sunny, nearly cloudless; evg. cloudy.	14		
15	29.361	29.261	40.7	33.4	38.9	37.0	38.0	35.7	E	3.35	NE	3.35	26	2.5 W 1 W	2 n.	n.d.	2 St.	Cloudy; r. sds. at intervals, and sl. at 11 h. 30 m.	15		
16	29.427	29.571	38.2	31.4	37.4	35.2	31.8	29.1	W	2.0	W	0.5	00	2.5 W 1 W	9.6	0	0	Fine; sunny at times; evening, hazy.	16		
17	29.639	29.653	31.8	24.7	28.0	26.1	24.7	2	W	2.0	W	2.0	00	0	0	0	0	Morning, thick h.; day mostly sunny.	17		
18	29.547	29.676	35.2	24.0	28.9	2	30.0	2	W	2.0	W	2.0	01	2 W 1 W	6.6	n.d.	2.6	Equally till aft. 3 h. and s. till 5 h. 16 h.; day fine, sunny.	18		
19	29.753	29.939	33.0	24.7	28.2	24.9	24.1	2	W	2.25	W 1 W	0.5	00	0.5 W 1 W	9.6	0	0	Fine; morning, clear; day, cloudy; evening, thick h.	19		
20	30.161	30.276	31.0	23.9	26.0	23.8	26.8	25.7	W	1.5	W 1 W	1.0	00	0	0	0	0	Thick h.; almost cloudless.	20		
21	30.196	29.908	40.9	23.9	35.7	32.0	40.9	38.0	W 1 W	2.5	W	2.5	00	2 W 1 W	1.6	n.d.	9.6	Fine, cloudy; slight r. sds. at 21 h.	21		
22	29.480	29.395	41.3	34.0	37.2	36.2	37.9	36.0	SE	1.5	W 1 W	2.4	39	2.5 S 1 W	10 n.	n.d.	3 St.	Overcast; r. till 19 h.	22		
23	29.645	29.597	39.9	34.7	35.3	33.0	39.9	38.0	W	1.5	W 1 W	2.25	01	2.4 W 1 W	6.6	n.d.	10 For bi-st.	Fine; sunny at times.	23		
24	29.324	29.532	41.0	35.2	40.7	39.0	35.9	34.0	W 1 W	2.5	W 1 W	2.3	00	3 W 1 W	10 n. r. oc.	0	0	Cloudy till noon, then sunny.	24		
25	29.671	29.627	39.8	32.7	34.2	33.0	36.7	35.7	W	2.0	W	2.5	02	0	0	3 W 1 W	10 oc. r. n.	chs. at intervals, after 15 h. 30 m.	25		
26	29.717	29.677	36.7	28.9	33.9	33.0	28.9	28.0	Variable	0.5	W	1.5	01	n.d.	10 Fog.	0	0	Morn. thick h. p.; cloudless till abt. noon, & cloudy aft. 14 h.	26		
27	29.808	29.506	37.9	27.9	28.5	26.7	37.9	37.3	W	2.0	SW	4.5	01	0	0	4 S W	10 oc. r. n.	After 19 h. l. s. r. sds.	27		
28	29.502	29.414	42.4	34.9	36.0	34.1	36.9	35.1	W	2.0	W	2.0	08	2 W	1.6	n.d.	8 St. amount variable.	Variable; sds. of s. r. rd. at mids. aft. 10 h.; sunny at times.	28		
29	29.755	30.098	39.2	33.9	38.0	36.0	33.9	32.0	W 1 W	1.5	W 1 W	1.0	01	2 W 1 W	9.6	0	0	Fine, except sds. at 7 h.; thick h. at times; evg. cloudy.	29		
30	30.306	30.468	36.4	29.7	30.9	2	29.9	29.0	Calm	0	Calm	0	00	1.5 W	1.6	n.d.	10 fog.	Bar. at 23 h. 30.476.	Thick h.; nearly cloudless.	30	
31	30.459	30.376	40.0	29.7	32.2	31.3	39.9	38.0	W 1 W	0.5	SW	2.0	00	0	0	2 W 1 W	10 St.	Fine; mostly cloudy; hazy.	31		
Sums.	916.098	916.215	1223.197	740.943	920.740	827.967	9	6	62.0	7	72.5	6	2.44			16.0		173			
"Corrected Means."	29.552	29.555	39.5	31.4	35.2	34.1	35.6	34.5	2.00		2.33	2.44				5.2		5.6			
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				

BAROMETER, "corrected Mean" = 29.552  
at 9 h. ....

"Corrected Mean" at 20 h. 45 m. ... = 29.555

Corr. for height 70 ft. = 29.476

Mean, reduced to 32°, and Sea-level, = 29.533

Highest corrected Reading at 23h. = 30.468

Universal Time, on the 30th. .... = 30.468

Lowest corrected Reading at 19h. 30m. = 27.671

Universal Time, on the 8th. .... = 27.671

Difference, or Monthly Range, ..... = 2.797

## S. - R. THERMOMETERS

(in shade, &amp;c.)

Highest in Month (corrected for Index Errors) on the 6th. .... = 52.6

Lowest in Month, (corrected for Index Errors), on the 20th. .... = 23.9

Difference, or Monthly Range, ..... = 28.7

"Corrected Mean" of all the Highest, (Col. 3), ..... = 39.5

"Corrected Mean" of all the Lowest, (Col. 4), ..... = 31.4

Difference, or Mean Daily Range, ..... = 8.1

Calculated Mean Temperature of Month, = 35.4

## HYGROMETER, "Corrected"

Mean of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), ..... = 35.0

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), ..... = 34.3

†† Computed Temperature of Dew-Point, = 32.6

†† Do. Elastic Force of Vapour, ... = 48.5

†† Relative Humidity (Saturation = 100), = 70

RAIN fell on 20 Days; Amount, ..... = 2.44 Inches.

WIND. SUMMARY.

Direction. N NE E SE S SW W NW

Calm or Variable. Mean Force. Mean Velocity in miles per day.

9 h. 2 1 2 1 1 22 2 2.00

21 h. 1 2 2 1 3 19 2 1 2.33

Mean. 1 2 2 1 0 2 20 1 2 2.16

## NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	m.	denotes meteor.
ci.	cirrus.	ma.	meteo.
ci.-ou.	cirro-cumulus.	n.	nimbus.
ci.-st.	cirro-stratus.	r.	rain.
cu.	cumulus.	h. r.	heavy rain.
cu.-f.	cumulus-form.	c. h. r.	continued heavy rain.
cu.-st.	cumulo-stratus.	st.	stratus.
d.	dew.	sc.	scud.
f.	fog.	sl.	slcet.
fr.	frost.	s.	snow.
h.-fr.	hoar-frost.	so. ha.	solar halo.
h.	haze.	s.	squall.
h. d.	heavy dew.	sqs.	squalls.
hl.	hail.	t.	thunder.
l.	lightning.	t. s.	thunder storm.
li. cl.	light clouds.	w.	wind.
li. sh.	light showers.	g.	gale of wind.
lu. co.	lunar corona.	n. d.	not discernible.
lu. ha.	lunar halo.		

## TABLE FOR ESTIMATING FORCE OF WIND.

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

\* Where an asterisk appears in Columns 3 and 4, the Highest Temperatures for the 24 hours (preceding 21 h.) were registered during the Night, and the Lowest Temperatures during the Day.

†† These Hygrometrical Deductions are calculated from Glaisher's Hygrometrical Tables, Sixth Edition.

Observations made and Return verified by

greatest daily range = 17.0 on the 21st

(Signed)

James Bolam &amp; George Redpath.

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Leith  
Dec 1886

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