

## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *January* 1887; 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. ....				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.				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.			
	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*	30.270	30.107	42.7	39.0	40.4	38.3	39.7	37.3	W	2.0	W	2.5	0.00	0.5 W	2.6	0.00	0.5 W	2.6	0.00	1				
2*	29.927	29.742	43.2	36.0	41.9	38.2	36.0	34.1	W	2.5	W	2.5	0.00	1.5 W	10.0	0.00	1.5 W	10.0	0.00	2				
3	29.384	29.092	42.0	35.2	40.6	37.6	35.7	34.1	SE	3.0	W	2.5	0.06	1.5 W	3.5	0.06	1.5 W	3.5	0.06	3				
4	29.339	29.199	36.0	30.0	31.8	29.6	31.1	28.6	W	1.5	SE	1.0	0.00	0	0	0.00	0	0	0.00	4				
5	28.851	28.838	32.3	27.9	29.9	29.0	31.0	30.0	SE	1.5	SE	0.5	0.02	n.d.	10 n.	1.5 SE	10 n.	1.5 SE	10 n.	5				
6	28.886	28.903	35.2	29.8	30.8	30.2	33.9	32.3	W	1.5	W	2.0	0.14	n.d.	10 fog	2.5 W	2.6	0.14	10 fog	6				
7	28.970	29.105	34.1	29.6	32.7	31.8	32.2	32.0	SE	1.5	SE	0.5	0.09	2.5 SE	10.0	0.09	2.5 SE	10.0	0.09	7				
8	29.168	29.268	37.1	30.0	35.4	34.0	35.9	35.1	W	2.5	W	2.5	0.08	2.5 W	10.0	0.08	2.5 W	10.0	0.08	8				
9*	29.408	29.547	37.5	33.4	34.9	34.6	35.9	35.0	W	0	W	1.0	0.05	n.d.	10 n.	2.5	10.0	2.5	10.0	9				
10	29.694	29.757	35.9	28.2	32.1	32.0	31.9	30.4	W	1.5	W	0	0.00	n.d.	10 fog	2.5	10.0	2.5	10.0	10				
11	29.300	29.753	44.4	30.8	40.1	38.0	38.9	36.0	S	4.5	W	2.5	0.07	3.5 S	10.0	0.07	3.5 S	10.0	0.07	11				
12	30.168	30.318	40.2	35.9	36.8	34.5	37.0	34.0	W	2.5	W	2.5	0.00	0	0	0.00	0	0	0.00	12				
13	30.202	30.180	43.9	34.8	41.1	37.6	41.2	40.0	SE	3.0	W	2.5	0.02	2.5	10.0	0.02	2.5	10.0	0.02	13				
14	30.331	30.437	42.0	33.9	37.1	35.5	33.9	33.0	W	2.0	W	0	0.00	0	0	0.00	0	0	0.00	14				
15	30.419	30.199	35.8	25.9	27.1	27.1	34.6	33.7	SE	0.5	SE	2.5	0.01	n.d.	10 fog	2.5	10.0	2.5	10.0	15				
16*	30.041	30.043	34.6	25.6	32.7	30.0	25.6	24.3	SE	2.0	W	0	0.00	2.5	10.0	0	0	2.5	10.0	16				
17	29.770	29.459	40.3	23.1	29.3	28.0	40.0	37.0	S	3.0	SE	3.5	0.02	2.5	10.0	0	0	2.5	10.0	17				
18	29.766	29.795	42.0	36.1	37.4	35.8	36.1	35.2	W	2.5	W	1.0	0.10	0	0	0.00	0	0	0.00	18				
19	29.515	29.920	53.0	35.8	51.8	48.7	39.9	37.2	SE	3.5	W	2.5	0.07	2.5	10.0	0	0	2.5	10.0	19				
20	30.362	30.424	45.0	35.5	37.6	35.4	44.9	43.0	W	2.0	W	3.5	0.00	0	0	0.00	0	0	0.00	20				
21	30.323	30.275	46.8	43.0	44.1	42.0	46.8	44.2	W	3.5	W	3.5	0.00	3.5	10.0	0	0	3.5	10.0	21				
22	30.188	30.301	48.6	45.8	46.6	44.6	47.2	45.7	W	4.0	W	2.5	0.00	3.5	10.0	0	0	3.5	10.0	22				
23*	30.324	30.276	47.2	41.9	44.5	42.8	42.3	40.0	W	2.5	W	2.5	0.00	2.5	10.0	0	0	2.5	10.0	23				
24	30.093	29.853	44.8	39.2	39.7	37.4	44.8	42.1	SE	2.0	SE	3.5	0.00	2.5	10.0	0	0	2.5	10.0	24				
25	29.837	29.870	52.3	44.0	46.8	44.4	50.8	47.9	SE	2.5	SE	3.5	0.00	3.5	10.0	0	0	3.5	10.0	25				
26	29.935	30.119	52.6	49.5	49.8	46.2	51.8	48.7	W	3.0	W	2.5	0.00	2.5	10.0	0	0	2.5	10.0	26				
27	30.060	29.950	53.5	47.8	52.2	45.5	49.7	45.0	SE	2.5	SE	3.5	0.00	2.5	10.0	0	0	2.5	10.0	27				
28	29.956	29.977	51.7	44.2	45.6	42.0	51.1	47.3	W	3.5	W	4.0	0.00	3.5	10.0	0	0	3.5	10.0	28				
29	30.055	30.057	54.0	48.3	49.3	45.2	51.9	47.4	W	3.5	W	2.5	0.00	3.5	10.0	0	0	3.5	10.0	29				
30*	29.992	29.909	52.8	44.4	47.8	43.2	44.4	41.7	SE	2.5	W	2.5	0.00	2.5	10.0	0	0	2.5	10.0	30				
31	29.792	29.530	47.0	38.7	39.4	37.2	43.6	40.0	W	2.5	W	3.5	0.04	2.5	10.0	0	0	2.5	10.0	31				
Sums.	924.326	924.203	1348.5	1123.3	1227.3	1156.4	1239.8	1172.3	74.5	66.5	0.77	0.77	2.30	2.12										
"Corrected Means."	29.817	29.813	43.5	36.2	39.6	37.3	40.0	37.8	2.40	2.15	0.77	0.77	7.4	6.8										
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17							

BAROMETER, "corrected Mean" = 29.817  
at 9 h. ....

"Corrected Mean" at 20 h. 45 m. ... = 29.813

Corr. for height of 70 ft = 0.073

Mean, reduced to 32°, and Sea-level, = 29.815

Highest corrected Reading at 21 h. = 30.437

Universal Time, on the 14th.

Lowest corrected Reading at 21 h. = 28.805

Universal Time, on the 15th.

Difference, or Monthly Range, ..... = 1.632

S. - R. THERMOMETERS  
(in shade, &c.) = 54.0

Highest in Month (corrected for Index Errors) on the 24th. ....

Lowest in Month, (corrected for Index Errors), on the 17th. .... = 23.1

Difference, or Monthly Range, ..... = 30.9

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

"Corrected Mean" of all the Lowest, (Col. 4), ..... = 36.2

Difference, or Mean Daily Range, ..... = 7.3

Calculated Mean Temperature of Month, = 39.8

HYGROMETER, "Corrected Mean" of 9 h. and 21 h. = 39.8

Reading of Dry Bulb (Cols. 5 and 7), ..... = 37.5

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), ..... = 34.5

†† Computed Temperature of Dew-Point, = 34.5

†† Do. Elastic Force of Vapour, ... = 0.232

†† Relative Humidity (Saturation = 100), = 82

RAIN fell on 13 Days; Amount, ..... = 0.77 Inch.

WIND.		SUMMARY.	
Direction	N E S W	Calm or Variable.	Mean Force.
9 h.	1 2 17 3 16	1	2.40
21 h.	1 1 2 4 18	3	2.15
Mean.	0 1 1 2 4 17 0 2	2.28	

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.	c. h. r. heavy rain.
cu-f. cumulus-form.	c. h. r. continued heavy rain.
cu-st. cumulo-stratus.	st. stratus.
d. dew.	sc. squall.
f. fog.	sl. sleet.
fr. frost.	s. snow.
h. hoar-frost.	so. ha. solar halo.
h. haze.	sq. squall.
h. d. heavy dew.	squ. squalls.
hl. hail.	t. thunder.
l. lightning.	t. s. thunder storm.
li. cl. light clouds.	w. wind.
li. sh. light showers.	w. 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 during the Day.

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

Observations made and Return verified by

Greatest daily Range = 17.2 on 17th &amp; 18th

(Signed)

James Colman &amp; George Redpath.



Leith  
Jan 1886

20



## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *February* 18*87*; 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. <i>33,647 &amp; 8.</i>				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. <i>22241</i>	Min. Kew No. <i>22218</i>	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	29.644	29.868	43.6	36.4	36.7	34.6	38.0	35.0	W	2.5	W	2-2 $\frac{1}{4}$	0.03	0	0	2 Wly	8 bi-st.	Fine, sunny. — Luv. ha. visible bet. 18h. & 21h.	1.	
2	29.686	29.358	43.2	34.6	39.1	35.9	41.4	39.3	S	3-3 $\frac{1}{2}$	WSEW	3.5	0.09	3.5 SEW	7.5 bi-st.	3 WSEW	9 scud; amount variable.	2		
3	29.273	29.420	50.7	39.0	49.4	45.7	49.8	44.0	S W	3-3 $\frac{1}{2}$	WSEW	4.5	2.7	n. d.	10 SEW bi-st.	3 WSEW	2 bi-st.	do do.	3	
4	29.958	29.994	49.8	40.9	45.0	41.0	44.9	44.0	WSEW	3.0	SEW	0.5	1.4	2.4 WSEW	6 bi-st.	2.5 Wly	10 n.	Fine, cloudy with sunny mts. alt. now; sho. aft. 17 $\frac{1}{2}$ h.	4	
5	30.023	30.370	50.1	38.1	43.3	41.7	38.1	35.7	W	2.5	W	2-2 $\frac{1}{2}$	1.4	2.2 W (scud)	10 SEW bi-st.	0	0	Heavy sgs. till aft. 4h.; cloudy with sho. at mts. till 11h.	5	
6	30.674	30.664	42.3	31.1	32.2	31.0	33.9	32.2	W	1.0	SEWly	1.0	0.00	0	0	0	0	Fine, hazy; nearly cloudless.	6	
7	30.631	30.693	40.1	29.2	34.9	33.0	36.2	35.3	SEWly	1.0	calm	0	0.00	2.5 SEWly	10 St.	n. d.	10 St. fog.	Fine, cloudy; hazy; evening, thick fog.	7	
8	30.705	30.713	38.0	28.3	30.0	29.1	31.7	28.1	W	1.0	SEW	1.0	0.00	n. d.	10 f	n. d.	5 St.	Fog, with thick h.-fr.	8	
9	30.682	30.617	37.2	23.8	27.1	25.3	28.9	27.1	W	0.5	Variable	0.5	0.00	n. d.	10 f	0	0	Fog.	9	
10	30.577	30.567	40.0	28.9	34.8	32.1	34.9	33.2	W	0.5	calm	0	0.00	2.1 W	10 SEW bi-st.	n. d.	6 bi-st.	Fine, sunny; hazy.	10	
11	30.586	30.633	40.2	31.1	33.9	33.0	37.7	37.1	calm	0	W	0.5	0.3	1.5 W	10 f	n. d.	10 n.	Cloudy; thick haze; drizz. n. after 18h.	11	
12	30.677	30.708	40.4	33.1	37.3	37.0	38.3	37.9	E	1.5	Variable	0.5	0.05	2.6 W	10 n.	n. d.	10 St.	Overcast, showery till noon; fine, sunny after 12h.	12	
13	30.710	30.547	42.5	35.9	37.4	37.0	40.9	40.0	calm	0	W	1.0	0.05	1.2 W	10 bi-st.	n. d.	10 St.	Cloudy; showery till noon; fine, sunny after 12h.	13	
14	30.349	30.347	41.0	34.2	38.9	36.0	35.6	34.8	W	1.0	SE, var.	1.0	0.01	2.1 W	9 bi-st.	n. d.	10 St.	Cloudy; slight s. sho. at 11h.; damp.	14	
15	30.457	30.462	39.5	31.3	34.9	33.8	36.8	34.1	SE	1.0	SEW	1-1.5	0.00	2.4 S	10 bi-st.	n. d.	10 St.	Cloudy, fine.	15	
16	30.352	30.366	41.6	35.4	37.4	35.0	39.1	38.0	W	1.5	W	1.5	0.00	2.2 W	10 SEW bi-st.	n. d.	10 SEW bi-st.	Cloudy; rather hazy; slight sho. aft. 20 $\frac{1}{2}$ h.	16	
17	30.291	29.988	44.1	38.0	40.2	39.4	42.9	41.7	SE	1.0	SE	2.0	0.03	2.2 W	10 bi-st.	n. d.	10 thick St.	Cloudy; drizz. sho. aft. 13 $\frac{1}{2}$ h.; thick h. at times.	17	
18	29.848	30.149	49.5	42.4	46.2	44.4	42.9	39.0	W	2.5	W	1-1.5	0.00	2.2 W	10 SEW	0	0	Fine; cloudy with sunny mts.; cloudless at 21h.	18	
19	30.228	30.150	48.3	35.8	39.6	36.8	44.0	42.0	W	2.0	WSEW	2-2 $\frac{1}{4}$	0.00	0	0	2 Wly	9 bi-st.	Fine; sunny till about 13h. then cloudy.	19	
20	29.910	29.844	48.2	39.9	44.8	41.1	39.9	37.1	SEW	2.5	W	2-2.5	0.00	2.5 WSEW	10 bi-st.	n. d.	2 faint St. (hor.)	Cloudy; sl. sho. between 14h. & 15h.; evening, clear.	20	
21	29.913	29.921	44.8	37.2	40.1	38.2	43.2	40.1	W	2.0	WSEW	2-2 $\frac{1}{4}$	0.00	2.5 W	3 SEW bi-st.	n. d.	10 St.	Cloudy; sl. sho. occasionally; rather hazy.	21	
22	29.733	29.569	52.6	42.8	47.2	44.4	50.8	48.0	WSEW	2.5-3.5	WSEW	4.0	0.04	2.4 WSEW	10 SEW bi-st.	3.5 WSEW	9 scud; amount variable.	Cloudy; equally; sho. after 16h.	22	
23	29.565	29.609	53.2	46.4	52.4	49.3	49.8	45.0	WSEW	3.5-4	WSEW	3-4	0.10	3 WSEW (sc.)	10 SEW bi-st.	3.5 WSEW	2 SE.	Cloudy, passing sho. during forenoon; very squally.	23	
24	29.551	29.480	54.4	48.8	51.8	47.9	48.8	46.8	SEW	3.5	W	3.5	0.00	3.5 SEW	4 SE.	3.5 W	5 scud; amount increasing.	Squally, sunny; a few slight sho.	24	
25	29.770	30.262	48.8	40.6	42.1	39.2	40.9	36.1	W	3.0	W	2-2 $\frac{1}{4}$	0.03	2.4-3 W	10 SEW bi-st.	0	0	Fine, sunny.	25	
26	30.287	30.290	54.1	34.2	40.9	37.0	47.2	41.2	S	2.0	W	2-2.5	0.00	2 W	8 bi-st.	n. d.	6 faint bi-st.	Fine, sunny; strong sgs. between 18h. and 20h.	26	
27	30.412	30.408	57.0	39.2	44.9	40.0	47.8	38.0	SEW	2.5	WSEW	1-2	0.00	1 WSEW	6 bi-st.	0	0	Fine, sunny.	27	
28	30.376	30.340	55.9	39.2	42.9	37.5	41.9	38.8	W	1.5	W	2-2 $\frac{1}{4}$	0.00	0	0	0	0	Fine, sunny; rather hazy.	28	
Sums.	844.868	845.337	1291.1	1015.8	1125.4	1056.4	1146.3	1069.6		52.8		53.4	1.01		1.00		17.0			
"Corrected Means."	30.174	30.199	46.1	36.3	40.2	37.7	40.9	38.2		1.88		1.93	1.01		7.1		6.1			
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			



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Leith  
Feb 1889

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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 *March* 1887; Distance from Sea, Half-Mile.

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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.			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	30.388	30.482	50.5	40.7	46.5	44.7	47.6	46.0	W. S. W.	2.5	W	1.5	0.00	3 W (cum)	10 Fair bi-st.	n. d.	10 St.	Cloudy; slight drizz. between 9h. and 10h.; sunny at times.	1		
2	30.485	30.473	52.0	46.1	48.7	47.1	48.5	46.0	W	2.5	W	2.5	0.00	3 W (cum)	10 Cum. r. oc.	3 W (cum)	10 Cum. r. oc.	Cloudy; sunny intervals between 14h. and 15h.	2		
3	30.460	30.445	50.1	44.9	47.3	45.0	44.9	42.0	W	2.5	W	2.4	0.00	n. d.	10 h.	0	0	Cloudy; rather hazy; cloudless at 21h.	3		
4	30.443	30.383	50.2	38.8	44.0	40.5	41.9	39.0	W. N. W.	1.5	W. by	1.0	0.00	2 1/4 N. W.	3 Cum.	0	0	Fine, sunny.	4		
5	30.328	30.226	42.5	32.0	34.6	33.5	39.0	39.0	W	1.5	E	0.5	0.00	0	0	n. d.	10 fog.	Morning, thick h. with h. fr.; day cloudless, sunny; evg. f.	5		
6	30.234	30.308	40.5	35.4	36.4	36.3	37.9	37.0	S. E. by	0.4	E	2.0	0.01	n. d.	10 fog	2 E	10 St.	* Probably drip from fog.	6		
7	30.378	30.351	43.2	35.6	39.7	37.8	38.6	34.9	E	2.0	E	0.5	0.00	2 E S. E.	1 Cum.	0	0	Fine, sunny.	7		
8	30.243	30.077	41.0	32.2	37.4	36.0	40.8	38.0	E	1.0	W. by	0.5	0.00	n. d.	10 fog.	2 W	10 Cum.	Thick haze.	8		
9	29.999	30.134	46.5	37.4	40.4	37.0	37.6	36.0	W. N. W.	1.5	E. N. E.	2.5	0.02	2 E	10 Cum. r. h.	2.5 N. E.	10 oc. r. h.	Cloudy, with sunny inters. dur. afternoon; sho. aft. 17h.; hazy.	9		
10	30.157	30.021	37.6	32.1	34.0	32.1	34.9	34.1	E	2.4	E	2.4	0.02	2 E	10 Cum. r. h. & d.	2 1/4 E (cum)	10 Fair bi-st.	Overcast, h. s. and sl. sho.	10		
11	29.947	29.976	37.5	29.6	30.0	?	31.9	?	N. E.	2.4	N. E.	2.5	0.31	n. d.	10 Fair bi-st.	n. d.	8 bi-st.	Overcast, h. v. at 4.30h., then continuous s. till alt. 17h.	11		
12	30.117	30.226	36.6	28.2	30.5	28.7	31.7	?	N	2.5	N. W.	2.5	0.00	1.5 N. W. by	7 Cum. r. Cum.	n. d.	1 St.	Fine, sunny; slight s. sho. at 7h. 45 m.	12		
13	30.219	30.071	36.6	24.4	27.9	27.0	31.7	29.4	W	2.5	W. N. W.	2.5	0.00	3 W. N. W.	3 faint Cum.	n. d.	5 St.	Fine, sunny.	13		
14	29.901	29.888	38.4	29.8	34.4	31.9	32.5	29.2	W. N. W.	1.5	N. W.	2.0	0.00	2 N. by E	3 bi-Cum.	0	0	Fine; mostly sunny; very clear at 21h.	14		
15	29.897	29.934	37.2	28.0	31.2	28.1	34.9	33.1	N. N. W.	2.0	N	2.5	0.00	2 N. E. by	7 Cum. r. bi-Cum.	n. d.	3 St. - Sky becoming clear.	Fine; sunny at times; sl. sho. of small h. s. at noon, 1.0h.	15		
16	30.070	30.173	37.5	29.0	32.4	31.5	29.0	28.1	W	2.0	Variable	0.5	0.07	2 E	7 Cum.	0	0	Quick s. r. h. sho. till 9h., then fine; evng. thick h. fr.	16		
17	30.185	30.186	39.3	29.0	35.7	32.9	36.0	34.7	W. N. W.	1.5	W. S. W.	2.5	0.12	1 N	7 Cum.	n. d.	10 thick St.	Cloudy; s. h. sho. bet. 8h. & 9h., r. s. & sho. at inters. during afternoon.	17		
18	30.206	30.251	44.0	33.8	34.4	33.9	39.3	36.1	W	2.0	N. W. by	0.5	0.01	1.5 N. N. E.	8 Cum.	n. d.	10 str. h.	Fine, cloudy; evening hazy.	18		
19	30.299	30.288	45.6	33.0	40.6	36.5	34.0	33.3	N. W.	1.0	Variable	0.5	0.00	0	0	0	0	Morning, thick h.; day fine, sunny.	19		
20	30.191	30.053	41.1	32.0	38.0	37.0	32.0	30.2	Variable	0.4	E	1.5	0.06	2 E	10 Cum.	n. d.	10 str. h. v.	Cloudy; occasional r. sho. with sl. at 9h. 20 m.	20		
21	29.842	29.555	38.9	30.1	34.4	33.3	32.5	31.8	S. E.	1.0	S. E.	1.0	0.02	2 E S. E.	7 Cum.	n. d.	2 St.	Cloudy, with sunny inters.; s. sho. bet. 10h. & 11h., r. h. sho.	21		
22	29.259	29.219	41.0	28.9	32.3	31.2	40.1	37.1	S. E.	2.0	S. W.	2.5	0.08	2.5 S. E. E.	10 Fair bi-st.	n. d.	1 St.	Overcast; s. bet. 7h. & 13h., r. bi-r. sho. at inters. later; clear at 14h.	22		
23	29.057	29.156	46.3	36.9	38.7	38.1	41.2	38.3	W	2.0	W	3.0	0.18	2.5 W. N. W. (reg)	10 Fair bi-st.	2.5 W. N. W.	8 Cum. r. oc.	Barometer at 7h. 29.050.	Overcast, r. till about noon; sunny after 13h.	23	
24	29.225	29.191	47.3	37.1	41.9	38.0	39.8	38.2	W. S. W.	3.5	W. N. W.	2.4	0.09	3 W	7 Cum.	n. d.	10 thick St.	Equally; sunny till about 14h.; cloudy, clearing aft. 14.15h.	24		
25	29.346	29.782	48.8	37.0	40.5	38.9	43.3	38.9	W. N. W.	2.0	N. W.	1.0	0.01	2 1/4 N. N. W.	10 oc. becoming Cum.	n. d.	7 St.	Cloudy; sunny at times; passing r. sho. till 14h., r. h. sho. at 14.45m.	25		
26	29.970	29.823	50.0	36.8	44.6	40.3	44.1	42.4	W	2.0	S. W.	X.2	0.07	0	0	2.5 S. W.	10 n.	Sunny at times; overcast, clearing after 16h. 30 m.	26		
27	29.628	29.777	50.5	43.5	47.2	43.4	42.5	39.2	W	3.5	W	3.5	0.08	3.5 W	2 Cum. r. 100.	n. d.	2 lat St.	Cloudy, with sunny inters.; freq. r. sho. with thick h. l.	27		
28	30.000	30.232	56.9	40.4	45.2	41.1	47.9	45.4	W. N. W.	2.4	W. N. W.	2.4	0.00	2.5 N. N. W.	4 bi-Cum. r. Cum.	n. d.	5 St.	Fine, cloudy; sunny inters. bet. 13h. & 15h., & slight sho. aft. 14h.	28		
29	30.299	30.319	52.3	40.4	43.8	41.2	47.2	43.3	W. N. W.	2.0	W. N. W.	1.5	0.00	2 N	3 bi-Cum.	1.5 N. W. by	9 Fair bi-Cum.	Fine; cloudy, with short sunny inters. during afternoon.	29		
30	30.330	30.203	55.6	41.3	47.0	42.3	47.9	44.2	W. N. W.	2.0	W	2.4	0.00	1.5 W. by	4 dr. bi-st.	n. d.	3 bi-st.	Fine; mostly sunny. S. h. visible nearly all day, r. sho. till 10h. 10 m., r. sho. at 10h. 10 m.	30		
31	29.956	29.770	53.7	39.2	43.1	40.8	39.4	34.1	W	2.5	N. W.	4.5	0.02	2.5 W	10 Fair bi-st.	n. d.	2 St. above 16. horizon.	Equally; cloudy, with sunny inters.; a few passing r. sho. and	31		
Sums.	931.059	930.973	1389.2	1082.6	1202.8	1106.1	1207.6	1079.0		61.5		57.5	1.37		203		167		Note.—On the 28th, 29th, and 31st, thermometer, Wind and cloud observations were made at 8h. 15m.		
"Corrected Means."	30.034	30.031	44.8	34.9	38.8	36.9	39.0	37.2		1.97		1.87	1.37		6.6		5.4				
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. = 30.034

"Corrected Mean" at 20 h. 45 m. = 30.031

Mean, reduced to 32°, and Sea-level, = 30.032

Highest corrected Reading at 2.45 p.m. = 30.485  
Universal Time, on the 23rd = 30.513Lowest corrected Reading at 7.4 a.m. = 29.052  
Universal Time, on the 23rd = 29.052

Difference, or Monthly Range, = 1.428

S. - R. THERMOMETERS

(in shade, &amp;c.)

Highest in Month (corrected for Index Errors) on the 28th = 56° 9

Lowest in Month, (corrected for Index Errors), on the 13th = 24° 4

Difference, or Monthly Range, = 32° 5

"Corrected Mean" of all the Highest, (Col. 3), = 44° 8

"Corrected Mean" of all the Lowest, (Col. 4), = 34° 9

Difference, or Mean Daily Range, = 9° 9

Calculated Mean Temperature of Month, = 39° 8

HYGROMETER, "Corrected"

Mean of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), = 38° 9

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), = 37° 0

†† Computed Temperature of Dew-Point, = 34° 4

†† Do. Elastic Force of Vapour, = 1.200

†† Relative Humidity (Saturation = 100), = 85

RAIN fell on 16 Days; Amount, = 1.37 Inches.

WIND.		SUMMARY.							
Description.	N	NE	E	SE	S	SW	W	NW	Mean Force.
9 h.	2	1	3	3		2	0	1	1.97
21 h.	1	1	6	1		2	1	5	1.87
Mean.	2	1	4	2	0	1	7	3	1.92 = 3.69

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.	e.	gale of wind.
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.

Observations made and Return verified by

Greatest Daily Range = 16.5 on the 28th (Signed)



Leith  
Mar. 1887

W



## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *April* 1887; 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. 48078, 48075.				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—10), and Direction.	Amount, (0—10), and Species.	Velocity (0—10), and Direction.				Amount, (0—10), and Species.			
			46450	22218																				
1	29.985	29.901	47.0	38.4	40.5	35.4	43.0	38.4	N	2-2.5	SW	2-2.5	0.00	2.4	11.6	9.5	6 m.	2.1	11.6	6.6	cu. faint bi-st.	3	Fine, clear, sunny. - Faint luv. ha. at 24h.	1
2	29.885	29.985	57.0	40.0	46.4	40.8	46.3	42.1	NW	2-2.5	NW	2.0	0.00	2.1	11.6	1.6	m.	2.1	11.6	1.6	m.	2	Fine, sunny.	2
3 *	30.004	29.841	51.2	41.9	48.4	44.8	46.4	43.8	W	2.5	W	2-3	0.00	3	W	10.6	bi-st.	2.4	11.6	10.5	bi-st. + 3 W. cc.	3	Cloudy; fine.	3
4	29.509	29.483	49.3	37.2	45.9	43.6	37.2	33.2	W	2.5	W	2.0	0.00	2.1	11.6	10.5	bi-st.	0	0	0	0	4	Cloudy till about 14h., then sunny; sl. shs. bet. 6 + 8h. and at 13h. Faint luv. co. at 24h.	4
5	29.585	29.950	41.3	32.1	39.1	34.3	37.8	33.2	N	2-2.5	N	2-2.5	0.06	2	N	10.5	bi-st.	2.1	11.6	10.5	bi-st.	5	Fine, sunny till aft. 10h.; occat. s. s. shs. bet. 11 1/2 h. + 14h., then fine.	5
6	30.190	30.269	41.1	34.0	37.0	33.1	36.2	32.6	N	2-2.5	N	2-2.5	0.00	2.1	11.6	4.6	m. 100.	2.1	11.6	10	6 m.	6	Cloudy, with sunny intervals during forenoon; sl. s. at 4h.	6
7	30.283	30.349	42.1	35.9	37.4	34.0	39.0	36.4	E	2-2.5	E	2.4	0.00	2	E	10	6 m.	2.4	E	6	6 m.	7	Cloudy; sl. shs. of s. + small hll.; sunny after 15h.	7
8	30.337	30.292	48.6	36.3	39.1	36.4	38.7	36.2	W	1-1.5	SW	0.5	0.00	1.5	5.5	9.5	6 m.	n. d.	2	St. clear.	8	Fine; mostly sunny.	8	
9	30.343	30.347	45.7	36.2	41.8	39.5	39.1	36.4	E	2.0	E	2.0	0.00	2.1	11.6	10	6 m.	0	0	0	0	9	Fine; cloudy till aft. 13h., then sunny; evg. cloudless.	9
10 *	30.328	30.254	45.0	32.0	41.1	38.0	41.1	40.1	E	1.5	E	1.0	0.00	2.5	5.5	1	6 m.	0	0	0	0	10	Morning, thick h. fr.; day clear, sunny.	10
11	30.243	30.147	48.5	33.2	38.9	38.3	41.2	40.3	N	2.0	N	1.5	0.00	n. d.	10	5 m.	bi-st.	0	0	0	0	11	Cloudy, with thick h. at times till 12 1/2 h., then sunny.	11
12	30.188	30.215	47.3	35.5	42.3	41.0	41.3	40.2	E	2.4	E	1.5	0.00	2	E	10	6 m.	n. d.	8	St.	12	Fine; cloudy till 14h., then sunny.	12	
13	30.292	30.349	42.9	37.4	39.9	35.3	37.4	32.6	N	2.4	N	2-2.5	0.00	2	N	10	6 m.	n. d.	6	St.	13	Cloudy; sunny at times; very clear.	13	
14	30.421	30.391	42.1	34.3	37.3	32.9	38.1	34.7	N	2.4	W	2-2.5	0.00	2	N	8	6 m.	n. d.	2	faint St.	14	Cloudy till 13h., then sunny; sl. s. at 8h. and 9h.	14	
15	30.373	30.492	49.0	33.5	43.8	38.4	42.1	40.1	NW	2.0	E	2.0	0.00	2.4	11.6	7	6 m.	n. d.	9.5	6 m.	15	Fine; cloudy, with sunny intervals.	15	
16	30.577	30.598	47.8	32.8	45.3	41.0	43.4	41.7	E	2.0	Variable	0.25	0.00	2	N	6	6 m.	n. d.	10	St.	16	Fine, cloudy; sunny at times till 14h.	16	
17 *	30.591	30.500	59.6	35.2	48.1	41.8	46.3	41.2	W	2.5	W	2-2.5	0.00	0	0	0	0	0	0	0	17	Fine, sunny.	17	
18	30.412	30.309	56.9	41.1	48.8	44.1	48.1	43.8	W	2.5	W	2-2.5	0.00	2	N	7	6 m.	n. d.	10	St.	18	Fine; cloudy, with short sunny intervals.	18	
19	30.211	30.066	54.7	46.2	49.3	44.3	47.4	45.1	W	2-2.5	W	2-2.5	0.00	2	W	10	5 m.	2	W	9	5 m.	19	Cloudy; equally at times.	19
20	29.923	29.982	51.8	38.4	49.4	46.6	38.7	38.1	W	3.0	E	2.5	0.26	2.6	3.5	10	5 m.	3.6	10	5 m.	20	Occat. li. shs. during day, + const. r. after 16 h.	20	
21	29.765	29.441	51.9	38.4	41.9	40.9	48.0	46.1	SE	2.5	S	2.0	0.36	2.4	11.6	10	5 m.	n. d.	4	St.	21	Evening, thunders. wind and clouds cleared at 24h. 45m. Occat. r. till about noon, then li. shs.	21	
22	29.302	29.213	55.2	44.5	51.4	47.0	46.4	43.4	W	2.5	SW	2-2.4	0.08	2	W	8	6 m.	2	W	6	6 m.	22	Sunny at times; shs. at 10h. + at intvs. aft. 15h.	22
23	29.118	29.105	53.8	40.4	45.9	42.5	43.9	41.1	SE	2.0	SE	2.0	0.15	2	SW	7	6 m.	1.5	SW	3	St.	23	Cloudy, with sunny intvs. + shs. occa., + heavy shs. large hll. at 24h.	23
24 *	29.146	29.377	51.7	36.5	45.8	43.0	36.5	34.4	W	2.0	W	2-2.5	0.08	2	W	8	6 m.	2	W	2	6 m.	24	Cloudy; sunny at times; passing r. shs. with hll. at 11h.	24
25	29.488	29.679	48.1	35.5	43.0	38.0	38.1	35.1	SW	2.5	W	2.0	0.01	2.5	SW	6	6 m.	2	W	2	6 m.	25	Sunny at times; sl. shs. of hll. bet. 10h. 50m. + 15h. 30m.	25
26	29.536	29.703	47.0	33.0	44.1	39.9	37.3	35.1	S	2.5	SW	2-2.5	0.05	2.5	SW	8	6 m.	2.5	SW	7	St.	26	Variable; showers till about 14h., then fine.	26
27	29.665	29.649	47.4	32.7	41.1	36.5	38.1	35.4	NW	2.5	W	2-2.5	0.00	2	W	2	6 m.	0	0	0	0	27	Morg. thick h. fr.; day fine, mostly sunny; sl. sh. at 8h.	27
28	29.792	29.913	50.1	37.2	45.3	40.9	41.2	38.7	W	2-2.5	W	2-2.5	0.04	2	W	4	6 m.	2	W	6	6 m.	28	Cloudy, with short sunny intervals; showery.	28
29	29.964	30.078	45.7	34.7	43.3	41.4	42.2	39.8	SW	0.5	E	2.0	0.00	2.2	5	9	6 m.	2	E	10	6 m.	29	Fine, mostly cloudy; clear during afternoon.	29
30	30.150	30.135	48.0	39.2	42.5	38.9	45.1	39.7	N	2-2.5	Variable	0.5	0.00	2.1	11.6	9	6 m.	2.1	11.6	10	St.	30	Fine, cloudy; sunny intervals after 13h.	30
Sums.	899.606	900.013	1467.8	1103.7	1305.1	1192.6	1245.6	1159.0		61.5		56.2	1.09		225		155						Morning observations of Thermo. winds and clouds made at 8h. 15m.	
"Corrected Means."	29.987	30.000	48.9	36.8	43.5	39.7	41.5	38.6		2.05		1.87	1.09		7.5		5.2							
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17							

BAROMETER, "corrected Mean" = 29.987  
at 9 h. ....

"Corrected Mean" at 20 h. 45 m. ... = 30.000

70 = 29.993

Mean, reduced to 32°, and Sea-level, = 29.993

Highest corrected Reading at ... = 30.598

Universal Time, on the ...

Lowest corrected Reading at ... = 29.275

Universal Time, on the ...

Difference, or Monthly Range, ... = 1.423

S. - R. THERMOMETERS  
(in shade, &c.) = 59.6

Highest in Month (corrected for Index Errors) on the ... = 59.6

Lowest in Month, (corrected for Index Errors), on the ... = 32.0

Difference, or Monthly Range, ... = 27.6

"Corrected Mean" of all the Highest, (Col. 3), ... = 48.9

"Corrected Mean" of all the Lowest, (Col. 4), ... = 36.8

Difference, or Mean Daily Range, ... = 12.1

Calculated Mean Temperature of Month, = 42.8

HYGROMETER, "Corrected Mean" of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), ... = 42.5

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), ... = 39.1

†† Computed Temperature of Dew-Point, ... = 34.9-37

†† Do. Elastic Force of Vapour, ... = 2.03

†† Relative Humidity (Saturation = 100), ... = 75

RAIN fell on 9 Days; Amount, ... = 1.09 Inches.

WIND.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
9 h.	5	2	5	0	4	1	10	3	0	2.05
21 h.	1	3	7	0	3	3	10	1	2	1.87
Mean.	3	2	6	0	4	2	10	2	1	1.96

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.	cumulus-form.	c. h. r.	continued heavy rain.
cu-st.	cumulo-stratus.	st.	stratus.
d.	dew.	sc.	squalls.
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

Greatest Daily Range = 24.4 on 17th  
(Signed) James Colman + George Redpath.



Leitch  
April 1883



## 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*87*; 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. 48078 & 48075				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.			
	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.			
	46450	22218																		
1*	30.106	29.936	54.9	36.3	45.1	39.6	44.9	38.1	NE	2.0	W	1.5	0.00	2 W	3 b.u.	0	0	Fine, sunny; cloudless at 21h.	1	
2	29.816	29.787	51.2	34.0	45.2	41.1	42.1	39.1	ENE	2.0	E	2.0	00	2 S	7 bi-st.	2 E: 8 St. 1st. 6 u. (Therm. read at 21.2 h.)	Fine, sunny. - So. ha. visible nearly all day.	2		
3	29.678	29.602	49.7	40.2	44.9	41.4	45.1	42.0	NE	2.0	ENE	2.0	00	1.5 NE	6 bi-ov.	2 NE	10 b.u.	Fine; mostly sunny.	3	
4	29.622	29.672	49.8	37.0	45.9	42.2	42.8	39.1	ENE	2.4	ESE	2.0	00	2.4 Ely	1 b.u. on hor.	n. d.	2 St. near hor.	Fine, clear, sunny.	4	
5	29.766	29.832	55.9	33.8	51.0	43.8	47.1	44.1	E	2.4	SE	2.0	00	2.5 SE	1 b.u.	2.5 SE	10 St.	Fine; mostly sunny.	5	
6	29.926	29.992	58.0	37.0	51.0	45.6	48.1	44.1	SE	2.0	SE	2.0	00	1.5 SE	3 b.u.	1.5 Wly?	10 St.	Fine, cloudy; sunny at times during afternoon.	6	
7	30.096	30.200	60.9	43.8	48.0	45.3	51.3	47.1	W	1.0	W	2.4	00	1.5 W	10 b. r. b. u.	2 W	9 b. u. (Therm. read at 22 h.)	Dull; rather hazy; sunny after 14h.	7	
8*	30.235	30.184	63.6	49.0	58.4	52.8	54.4	50.2	W	2.5	W	2.3	00	2.5 W	10 b. u.	2.4 W	4 bi-out. 1st.	Cloudy; short sunny intervals about noon.	8	
9	30.241	30.245	57.4	47.5	51.8	46.1	47.5	43.1	W	2.0	W	3.0	00	2.5 W	7 b. u.	2.4 Wly	1 b. u. on hor.	Fine; cloudy till about 13h, then mostly sunny.	9	
10	30.234	30.259	57.1	47.0	53.2	46.9	49.7	44.5	W	3.5	WNW	2.5	00	2.1 W	3 b. u. 1st. 2.2 W	2.1 W	10 b. u.	Fine; sunny at times; equally.	10	
11	30.129	30.083	51.9	46.0	49.4	46.3	46.1	45.7	W	2.0	NE	2.4	27	2.4 W (over)	10 b. u. 1st. 3.1 E (over)	10 n. r. oc.	Overcast; drizz. obs.; brisk r. after 19h. 4.5 m.	11		
12	30.151	30.293	56.4	44.0	53.5	49.2	44.7	42.2	W	2.0	NE	2.5	07	2.1 W	8 b. u.	2.1 Wly	2 b. u. r. 1st.	Mostly cloudy; obs. at 6h, 7 a.m. obs. aft. 15h. 4.5 m.	12	
13	30.410	30.445	48.8	39.4	42.5	36.9	40.1	37.6	NE	2.5	ESE	2.0	00	2.4 NE	8 b. u.	2.1 Ely	2 b. u. 1st.	Fine; mostly sunny; very clear.	13	
14	30.453	30.425	55.0	38.7	44.3	42.6	51.1	49.7	W	2.0	Variable	0.5	02	2.1 NE (over)	10 b. u. 1st. 2.1 W	10 b. u.	Cloudy; drizz. obs. 1st. 6h. r. 8h, 1st. from 14h till 16h.	14		
15*	30.419	30.350	63.3	48.8	55.6	51.0	56.0	52.5	NE	2.5	SE	1.5	00	2.1 W	10 b. u.	2.1 NE	10 St.	Fine; cloudy, with sunny inters. during afternoon.	15	
16	30.299	30.163	61.2	52.3	55.5	51.1	56.2	49.9	NE	1.0	W	2.0	00	1 E. drizz. 9h. 1st.	1.4 E	10 b. u.	Fine; sunny at times.	16		
17	29.964	29.863	65.9	45.7	63.7	53.7	51.0	48.0	SE	2.0	W	2.4	00	2 W	1 b. u.	2.4 W (oc)	10 b. u. 1st.	Fine; sunny till about 14h, then cloudy; li. obs. aft. 20h.	17	
18	29.878	29.760	59.5	43.7	52.2	45.7	48.8	44.3	WNW	2.0	W	2.5	00	2.1 W	3 b. u.	2 W	9 St.	Fine, sunny; evening cloudy.	18	
19	29.581	29.369	53.9	45.1	47.8	42.8	45.1	41.2	W	3.0	SE	2.0	01	2.5 W	2 b. u.	n. d.	10 b. u. 1st.	Cloudy, with sunny inters.; obs. at 6h, and aft. 20.2 h.	19	
20	29.216	29.425	47.2	37.7	40.5	36.9	40.3	36.4	WNW	3.0	W	2.4	75	2.4 W (over)	10 b. u. 1st. 2.1 W	0.5 b. u.	[Barom. at 4h, 29.100 inches]	Clear, const. r. (heavy at times) till 9h, 7 a.m. obs. with sunny.	20	
21	29.400	29.562	50.1	37.0	43.3	38.9	43.1	40.1	W	2.0	WNW	2.5	07	2 W	9 b. u.	2.4 Wly	9.5 St.	Cloudy; sunny at times; obs. after 16h.	21	
22*	29.755	29.908	51.0	40.4	47.1	41.1	42.6	41.0	NE	2.5	W	1.0	02	2.1 W	9 b. u.	2.1 NE	3 b. u.	Cloudy, with short sunny inters.; passing obs. aft. 14h.	22	
23	29.982	30.091	63.2	39.2	50.2	44.1	52.9	48.6	WNW	2.5	WNW	2.5	00	2.1 W	3 b. u. 1st. 2.1 W	4 bi-out. 1st.	2 b. u.	Fine; mostly sunny. - So. ha. visible at 8h.	23	
24	30.209	30.303	67.0	48.8	58.8	54.4	49.0	47.8	W	2.5	Variable	0.5	00	2.1 W	8 b. u.	2.1 W	10 St. r. b. u.	Fine, cloudy, obs. at 17h. 4.5 m.	24	
25	30.325	30.375	58.9	47.5	58.0	54.8	47.5	47.4	E	1.5	ENE	2.5	15	2.1 NE	9 b. u.	3.1 NE (oc)	10 n. r. oc.	Cloudy; shower aft. 13h, 1st. thick drizz. r. at 24h.	25	
26	30.442	30.369	51.9	45.0	49.2	46.9	47.3	45.4	NE	2.0	E	1.0	13	2.5 E	10 b. u.	0	0	Fine, sunny; very clear. - So. ha. visible during afternoon.	26	
27	30.233	30.194	52.2	44.8	52.2	50.0	48.0	47.0	E	2.5	ESE	3.0	03	0	0	3 E NE	7 St.	Cloudy; short inters. of sunshine during afternoon.	27	
28	30.155	30.117	53.9	44.1	49.0	45.9	48.3	46.1	E	3.0	ESE	2.5	00	3 E NE	small patch. oc.	2.5 E NE	9 St. r. oc.	Fine; nearly cloudless during day; evening cloudy.	28	
29*	30.079	30.086	50.8	44.2	48.3	44.1	46.0	43.3	E	2.4	E	2.4	00	2.5 NE	4 b. u.	2.4 E NE	9 St. r. oc.	Fine, sunny.	29	
30	30.128	30.186	49.9	44.0	47.1	45.0	45.1	44.1	E	2.4	E	2.5	00	2 E	10 b. u.	2.4 SE	2 b. u.	Cloudy till aft. noon, then sunny; drizz. obs. between	30	
31	30.222	30.135	61.0	42.2	47.7	45.6	51.7	46.1	ENE	2.4	E	2.0	00	3 E NE (oc)	1 b. u. r. oc.	0.5 NE	1 b. u. on hor.	Clear; sunny.	31	
Sums.	941.150	941.212	132.5	122.2	150.4	144.8	143.9	135.8		68.2		63.4	1.52		191		226			
"Corrected Means."	30.037	30.039	55.9	42.7	50.0	45.5	47.5	44.4		2.20		2.05	1.52		6.2		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" = 30.037  
at 9 h. ....

"Corrected Mean" at 20 h. 45 m. ... = 30.039

Height 70 feet  
Mean, reduced to 32°, and Sea-level, = 30.038Highest corrected Reading at 2h. ... = 30.453  
Universal Time, on the 14th.Lowest corrected Reading at 2h. ... = 29.216  
Universal Time, on the 20th.

Difference, or Monthly Range, ... = 1.237

S. - R. THERMOMETERS  
(in shade, &c.) = 67.0  
Highest in Month (corrected for Index Errors) on the 24th.

Lowest in Month, (corrected for Index Errors), on the 5th. ... = 33.8

Difference, or Monthly Range, ... = 33.2

"Corrected Mean" of all the Highest, (Col. 3), ... = 55.9

"Corrected Mean" of all the Lowest, (Col. 4), ... = 42.7

Difference, or Mean Daily Range, ... = 13.2

Calculated Mean Temperature of Month, = 49.3

HYGROMETER, "Corrected Mean" of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), ... = 48.7

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), ... = 44.9

†† Computed Temperature of Dew-Point, ... = 40.8

†† Do. Elastic Force of Vapour, ... = 2.55

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

RAIN fell on 10 Days; Amount, ... = 1.52 Inches.

WIND.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
9 h.	2	3	9	1	1	0	2	3	0	2.20
21 h.	1	1	0	3	2	0	2	0	2	2.05
Mean.	2	2	9	2	2	0	2	1	1	2.12 = 4.49 lb.

## NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	m.	denotes meteor.
ci.	cirrus.	ms.	meteors.
ci-cu.	cirrus-cumulus.	n.	nimbus.
ci-st.	cirrus-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.	sleet.
fr.	frost.	s.	snow.
h. fr.	hoar-frost.	so. ha.	solar halo.
h.	haze.	sq.	squall.
h. d.	heavy dew.	sg.	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. lu.	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 = 24.0 on the 23rd

(Signed)

James Pollock &amp; George Redpath.

9.8.  
7A.



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Leitch  
May 1887

3



## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *June* 188*7*; 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. 48,078.75				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.			
	46450	22218																		
1	30.074	29.993	58.9	39.2	53.6	47.0	46.4	44.8	E	2.4	E	2.4	0.00	2.5 Ely	10.6 cu.	2.5 Ely	2.0 cu.	Fine, sunny.	1	
2	29.967	29.934	47.9	39.7	47.6	44.8	44.3	42.1	E	2.4	E	2.4	0.00	2.5 Ely	10.6 cu.	2.5 Ely	10.6 cu.	Cloudy, clear.	2	
3	29.923	29.914	51.0	43.9	47.0	44.6	47.9	47.0	E	2.0	E	2.4	0.00	2.5 Ely	10.6 cu.	2.5 Ely	3.6 cu.	Fine, cloudy.	3	
4	29.906	29.956	50.6	47.2	49.8	48.7	48.9	48.3	E	2.0	Calm	0	2.2	2.5 Ely	10.6 cu.	n.d.	10 thick st.	Overcast; const. fr. from 9h. till about 13h.	4	
5	30.005	30.010	68.0	47.0	56.8	53.2	59.2	55.2	W	2.0	W	2.0	0.00	2.5 W	6.6 cu.	2.5 W	2.5 st.	Fine, mostly sunny.	5	
6	29.987	29.922	63.9	51.2	56.1	53.1	56.3	54.0	E, variable	1.5	W	2.5	0.00	2.5 W	10.6 cu.	2.5 W	10.6 cu.	Cloudy, with short sunny inters.; li. sho. after 17h.	6	
7	29.689	29.721	67.0	54.2	60.8	56.5	54.2	50.4	SW	3.0	W	3.5	0.03	2.5 SW	10.6 cu.	3.5 W	0.5 cu.	Cloudy till about 14h., then sunny; equally after 12h.	7	
8	29.814	29.865	64.9	51.1	56.4	50.2	55.7	52.1	W	3.0	W	2.5	0.00	2.5 SW	10.6 cu.	2.5 W	2.5 cu.	Fine, mostly sunny.	8	
9	29.850	30.146	62.4	51.9	57.0	51.2	54.0	50.0	W	3.0	W	2.5	0.00	2.5 W	1.6 cu.	2.5 W	2.5 cu.	Thermos. read at 8h. 30m. Fine, sunny; equally at times.	9	
10	30.352	30.383	66.9	46.9	57.8	51.4	56.1	50.6	W	1.5	W	2.0	0.00	1.5 W	1.6 cu.	2.5 W	4.6 cu.	Fine, sunny.	10	
11	30.230	30.117	60.8	50.9	58.8	53.8	56.0	53.2	W	2.5	W	2.5	0.01	2.5 W	10.6 cu.	2.5 W	9.5 st.	Cloudy; li. sho. between 12h. 45m. and 14h.	11	
12	29.988	29.922	67.2	54.7	59.1	55.3	58.1	55.9	W	3.0	W	2.5	0.00	2.5 W	10.6 cu.	2.5 W	10.6 cu.	Fine, sunny at times; equally.	12	
13	29.982	29.982	63.6	56.1	58.0	52.3	56.5	53.9	W	2.0	W	2.5	0.05	2.5 W	10.6 cu.	2.5 W	3.6 cu.	Cloudy; li. sho. at intervals after 14h.	13	
14	30.209	30.161	58.6	47.9	56.8	53.7	55.7	54.2	E	2.0	S, var.	0.5	0.01	2.5 W	2.6 cu.	1.5 W	10.6 cu.	Cloudy; li. sho. after 12h. 45m.; rather hazy.	14	
15	30.230	30.332	67.9	54.0	60.8	56.5	58.4	54.1	W	2.5	W	2.0	0.00	2.5 W	10.6 cu.	2.5 W	10.6 cu.	Fine; cloudy till about noon, then mostly sunny.	15	
16	30.331	30.302	77.0	53.1	64.8	59.2	67.6	59.6	W	2.5	W	2.5	0.00	2.5 W	10.6 cu.	2.5 W	2.6 cu.	Fine, sunny. — Faint solar halo at 7h.	16	
17	30.327	30.294	67.6	54.2	63.9	58.5	59.0	57.0	E	2.0	Variable	0.5	0.00	1.5 SW	5.6 cu.	2.5 W	2.6 cu.	Fine, mostly cloudy; evening hazy.	17	
18	30.301	30.299	81.2	56.4	70.6	63.2	60.0	56.9	W	1.5	E	1.0	0.00	0	0	0.5 W	7.6 cu.	Fine, sunny; cloudless till about 15h.	18	
19	30.383	30.438	60.0	50.8	51.8	51.1	51.6	48.6	E	2.5	E	2.5	0.00	3.5 E	10.6 cu.	2.5 E	9.6 cu.	Cloudy, with short sunny inters. during afternoon.	19	
20	30.478	30.480	58.6	48.8	54.5	49.8	51.0	47.5	E	2.0	E	1.0	0.00	2.5 E	2.6 cu.	0.5 W	3.6 cu.	Clear, sunny. — Solar halo at 13h.	20	
21	30.407	30.414	70.2	44.4	63.6	53.0	57.5	51.3	W	1.5	E	1.5	0.00	2.5 E	3.6 cu.	2.5 E	4.6 cu.	Fine, sunny.	21	
22	30.399	30.376	76.4	49.6	66.4	55.4	58.8	50.8	E	1.5	E	1.5	0.00	1.5 Ely	16.6 cu.	1.5 W	2.6 cu.	Fine, clear, sunny.	22	
23	30.386	30.386	59.3	50.4	56.5	53.1	52.1	51.0	E	2.0	E	2.0	0.00	2.5 Ely	10.6 cu.	2.5 Ely	10.6 cu.	Fine; cloudless during day; evening cloudy.	23	
24	30.388	30.367	61.6	50.8	55.7	52.8	52.2	51.8	E	2.0	E	1.0	0.00	0	0	n.d.	10.6 cu.	Fine, sunny; cloudless till abt. 15h.; evening hazy.	24	
25	30.317	30.300	61.9	50.0	54.0	52.8	52.5	51.3	E	1.5	E	2.5	0.00	0	0	3.5	5.6 cu.	Fine, morning thick; day sunny, almost cloudless.	25	
26	30.322	30.185	59.2	51.8	53.5	51.5	54.7	52.3	E	1.5	Ely	0.5	0.00	2.5 E	10.6 cu.	n.d.	2.6 cu.	Fine; cloudy till about noon, then sunny.	26	
27	30.126	30.171	68.2	51.0	60.0	54.3	57.3	55.0	W	2.5	W	1.0	0.00	2.5 W	10.6 cu.	1.5 W	6.6 cu.	Fine; cloudy, with sunny inters. — Faint so. ha. at 6h.	27	
28	30.231	30.301	71.8	49.9	61.0	56.0	60.0	55.1	W	2.5	W	2.5	0.00	2.5 W	10.6 cu.	0	0	Fine; sunny at times.	28	
29	30.424	30.433	71.0	52.8	62.4	57.4	60.4	57.4	W	2.0	W	2.5	0.00	0	0	1.5 W	5.6 st.	Fine, sunny.	29	
30	30.422	30.339	73.8	54.3	64.3	58.3	62.5	58.9	W	2.0	W	2.5	0.00	0	0	2.5 W	3.6 cu.	Fine, sunny. — So. ha. at noon.	30	
Sums.	1433	1411	1414	1314	1414	1314	1414	1314	64.25	52.5	0.33	169	183	5.6	6.1					
"Corrected Means."	30.182	30.182	64.6	50.1	58.0	53.3	55.5	52.3	2.14	1.75	0.33									
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			

BAROMETER, "corrected Mean" = 30.182  
at 9 h. ....

"Corrected Mean" at 20 h. 45 m. ... = 30.182

Height 40 feet = 30.185

Mean, reduced to 32°, and Sea-level, = 30.182

Highest corrected Reading at 12h. 30m. = 30.486

Universal Time, on the 20th ...

Lowest corrected Reading at 15h. ... = 29.624

Universal Time, on the 7th ...

Difference, or Monthly Range, ... = 0.862

S. - R. THERMOMETERS  
(in shade, &c.) = 81° 2

Highest in Month (corrected for Index Errors) on the 18th ...

Lowest in Month, (corrected for Index Errors), on the 1st ... = 39.2

Difference, or Monthly Range, ... = 42.0

"Corrected Mean" of all the Highest, (Col. 3), ... = 64.6

"Corrected Mean" of all the Lowest, (Col. 4), ... = 50.1

Difference, or Mean Daily Range, ... = 14.5

Calculated Mean Temperature of Month, = 57.4

HYGROMETER, "Corrected Mean" of 9 h. and 21 h. = 56° 7

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

"Corrected Mean" of 9 h. and 21 h. = 52° 8

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

†† Computed Temperature of Dew-Point, = 49.2

†† Do. Elastic Force of Vapour, = 0.351

†† Relative Humidity (Saturation = 100), = 76

RAIN fell on 6 Days; Amount, ... = 0.33 Inches.

WIND.		SUMMARY.					
Direction	N	NE	E	SE	S	SW	W
9 h.	0	0	1	0	2	3	0
21 h.	2	1	1	0	2	1	0
Mean.	1	1	2	0	1	3	0

## NOTATION USED IN GENERAL REMARKS.

a.	denotes aurora.	m.	denotes meteor.
ci.	" "	ms.	" "
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

Greater daily range = 26.8 on the 27th

(Signed).

James Bolam &amp; George Redpath.



1105012 0 100-20000  
1105105 1 100  
00105053 0 00

20.10.2

2 2 2 0 5 1 1 2 210 102  
490 100 100 100 100 100 100 100 25

2.0 2.8 1.1 1.2

Leath  
June 1884



## 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*87*; 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. 48078, 148075.				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.		Dry bulb.		Wet bulb.		Direction.		Force, 0—6.			Amount, (0—6), and Direction.		Amount, (0—6), and Direction.				
	Max. Kew No. 46450.		Min. Kew No. 22218.		Dry bulb.		Wet bulb.		Direction.		Force, 0—6.			Amount, (0—6), and Direction.		Amount, (0—6), and Direction.				
1	30.275	30.183	77.8	55.9	63.8	59.0	66.1	60.3	W	2.0	W	2.0	0.00	0	0	2.0	W	8.0	th. therm. read at 8h. 15m.	1
2	30.171	30.185	71.9	58.2	64.1	59.8	62.2	58.7	W	2.3	W	2.2	0.00	2.5	3.6	2.0	6.0	do.	do.	2
3*	30.092	29.965	75.5	58.3	68.0	62.2	63.9	60.8	W	2.2	W	3.0	0.00	2.5	3.6	2.0	6.0	do.	do.	3
4	29.933	29.901	66.9	55.0	55.2	54.2	56.6	52.0	W	2.0	W	2.0	1.5	2.0	10.0	15.0	12.0	9.0	do.	4
5	29.963	30.065	57.4	49.5	52.0	50.0	49.5	46.4	E	2.0	ESE	1.5	4.5	2.0	10.0	2.0	6.0	do.	do.	5
6	30.089	30.004	61.9	42.0	54.5	49.2	55.6	51.7	E	1.5	W	1.5	0.00	2.0	1.0	2.0	10.0	do.	do.	6
7	30.000	29.979	72.3	52.7	54.0	53.4	65.7	60.0	E	1.0	W	2.0	0.09	n.d.	10.0	2.0	9.0	do.	do.	7
8	29.959	29.754	81.3	57.8	68.8	61.2	63.1	60.0	E	1.0	SE	0.5	0.00	2.5	3.6	2.0	10.0	do.	do.	8
9	29.696	29.619	72.4	60.0	65.8	57.3	60.2	57.8	W	2.2	W	1.5	0.00	2.0	2.0	15.0	10.0	do.	do.	9
10*	29.454	29.603	68.0	57.3	61.4	56.5	57.3	55.2	W	2.5	W	2.0	3.4	2.5	2.0	2.0	10.0	do.	do.	10
11	29.672	29.721	67.9	54.9	60.4	55.5	60.1	56.9	W	2.0	W	2.0	0.2	2.5	10.0	2.0	9.0	do.	do.	11
12	29.720	29.650	73.3	58.8	67.2	61.6	62.5	58.0	W	2.2	W	2.5	0.3	2.0	7.0	2.5	10.0	do.	do.	12
13	29.584	29.531	71.5	60.5	61.7	60.1	60.8	56.8	E	2.0	SE	2.5	1.2	2.5	10.0	2.5	3.0	do.	do.	13
14	29.737	29.933	68.5	55.1	63.3	57.2	59.5	53.4	W	3.0	W	2.2	0.00	2.5	3.0	2.0	10.0	do.	do.	14
15	30.023	30.099	68.3	51.9	62.4	53.8	58.1	53.5	W	2.0	W	2.0	0.4	2.0	3.0	2.0	10.0	do.	do.	15
16	30.244	30.294	64.4	50.8	60.0	52.2	55.3	53.4	W	2.0	W	2.0	0.8	2.0	8.0	2.0	10.0	do.	do.	16
17*	30.358	30.300	63.6	50.7	52.9	48.2	50.7	47.3	W	1.5	E	1.0	0.00	2.0	10.0	2.0	10.0	do.	do.	17
18	30.227	30.204	70.1	43.6	56.5	48.2	60.0	55.4	W	2.0	W	2.0	0.00	2.0	10.0	2.0	9.5	do.	do.	18
19	30.245	30.263	75.0	58.1	67.2	58.2	64.1	60.1	W	2.5	W	2.5	0.00	2.0	7.0	2.5	10.0	do.	do.	19
20	30.299	30.259	71.4	56.9	62.4	55.6	60.8	54.7	W	2.0	W	2.2	0.00	2.0	2.0	2.0	10.0	do.	do.	20
21	30.243	30.111	72.0	51.7	60.5	54.8	63.3	57.9	W	1.5	W	1.2	0.00	2.0	1.0	2.0	10.0	do.	do.	21
22	29.934	29.985	69.2	56.2	64.4	59.4	56.2	51.0	W	2.3	W	2.2	0.00	2.0	10.0	2.0	10.0	do.	do.	22
23	30.007	29.909	64.9	53.7	60.2	55.4	57.6	54.5	W	2.2	W	2.5	0.1	2.5	10.0	2.5	10.0	do.	do.	23
24*	29.684	29.755	66.1	54.8	55.0	53.9	55.7	50.0	W	2.4	W	2.2	0.28	2.0	10.0	2.0	10.0	do.	do.	24
25	29.766	29.777	63.8	50.1	58.0	51.4	55.3	51.0	W	2.5	W	2.2	0.00	2.0	6.0	2.0	10.0	do.	do.	25
26	29.641	29.245	71.2	49.1	64.8	55.1	59.0	57.7	E	1.5	SE	2.5	1.5	2.0	16.0	2.5	10.0	do.	do.	26
27	29.271	29.600	69.1	56.8	65.3	57.5	57.0	53.0	W	3.0	W	3.0	5.3	2.5	7.0	3.0	2.5	do.	do.	27
28	29.789	29.770	67.9	54.1	65.7	58.0	63.0	57.2	W	2.5	W	2.5	0.00	2.0	3.0	2.5	10.0	do.	do.	28
29	29.633	29.813	66.2	57.1	65.2	57.8	57.1	53.1	W	3.0	W	2.5	0.09	2.5	7.0	2.0	10.0	do.	do.	29
30	29.973	30.062	65.0	52.7	60.2	53.8	57.0	51.1	W	2.5	W	2.0	0.00	2.5	3.0	2.0	10.0	do.	do.	30
31	30.078	30.105	58.0	51.1	55.6	51.7	54.1	52.1	W	1.0	Variable	0.5	0.09	1.5	8.0	1.5	7.0	do.	do.	31
Sums.	29.760	29.644	29.288	55.4	65.5	57.2	60.7	54.0	W	2.1	W	2.1	2.47	7.1	219	7.2	222			
Corrected Means.	29.928	29.924	29.849	57.7	65.7	57.7	60.7	54.9	W	2.1	W	2.1	2.47	7.1	219	7.2	222			
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. = 29.928

"Corrected Mean" at 20 h. 45 m. = 29.924  
Height = 70 ft. = 29.849  
Mean, reduced to 32°, and Sea-level, = 29.926

Highest corrected Reading at 9 h. = 30.358  
Universal Time, on the 17th.

Lowest corrected Reading at 2.2 h. = 29.245  
Universal Time, on the 26th.

Difference, or Monthly Range, = 1.113

S. - R. THERMOMETERS (in shade, &c.)

Highest in Month (corrected for Index Errors) on the 8th. = 81° 3

Lowest in Month (corrected for Index Errors) on the 6th. = 42° 0

Difference, or Monthly Range, = 39° 3

"Corrected Mean" of all the Highest, (Col. 3), = 68° 8

"Corrected Mean" of all the Lowest, (Col. 4), = 54° 0

Difference, or Mean Daily Range, = 14° 8

Calculated Mean Temperature of Month, = 61° 4

HYGROMETER, "Corrected Mean" of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), = 60° 1

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), = 55° 2

† Computed Temperature of Dew-Point, = 50° 9

† Do. Elastic Force of Vapour, = 4.15

† Relative Humidity (Saturation = 100), = 72

RAIN fell on 15 Days; Amount, = 2.47 Inches.

WIND.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
9 h.	0	1	2	3	1	2	0	2	0	2.1
21 h.	0	0	2	1	2	3	2	0	1	2.1
Mean.	1	0	2	1	2	3	2	1	0	2.1 = 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.	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.
hl.	hail.	t.	thunder.
l.	lightning.	t. s.	thunder storm.
l. cl.	light clouds.	w.	wind.
l. 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 = 26.5 on the 18th

(Signed)

James Polam & George Redpath.



Leith  
July 1887



## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *August* 1887; 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. 48,078 & 075.				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. 46450	Min. Kew No. 22218																
					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.		Amount in inches.	Velocity (0—6), and Direction.	Amount, (0—10), and Species.	Velocity (0—6), and Direction.			
1	30.186	30.189	67.5	50.9	59.7	54.4	57.1	51.8	NW	2.0	W	2.5	0.00	2 W	2 Cu.	2 1/2 W	10 St.	Fine, sunny; sho. after 21h. 10 m.	1	
2	30.208	30.305	67.3	51.7	57.0	52.0	56.9	50.4	NW	2 1/4	W	1.5	0.01	2 1/2 NW	2 Cu. + 1 St.	1.5 NW	2 Cu. + 1 St.	Thermos. read at 8h. 20 m.	2	
3	30.337	30.309	65.1	48.2	55.6	51.7	56.0	54.5	NW	2.0	SW	0.5	0.00	2 NW	3 Cum.	0	0	Do. do. do.	3	
4	30.316	30.223	66.3	48.0	60.0	54.8	55.2	54.5	E	1.0	E	0.5	0.00	2 W	2 Cu.	0	0	Fine, sunny.	4	
5	30.163	30.063	72.0	52.3	64.4	55.0	65.5	59.0	E	1.0	W	1.0	0.00	0	0	1.5	4 Cu.	Fine, sunny.	5	
6	30.027	29.883	65.5	56.8	63.0	58.6	57.0	56.0	Wly	1.0	E	1.5	2.29	2 SW	10 For. bi-st.	2 Sly	10 For. bi-st.	Overcast; constant r. after 8h. 30 m.	6	
7	29.948	30.027	66.4	56.3	60.0	54.0	59.0	53.8	SW	2.5	SW	2.5	1.14	3 NW	2 Cu.	2 W	5 Cu.	Overcast, r. till 11h.; day fine, mostly sunny.	7	
8	29.945	29.959	64.4	58.8	60.5	58.0	59.0	56.3	W	3.0	W	2.5	0.00	3 SW (ce.)	10 For. bi-st.	3.5 W (ce.)	10 St. + rce.	Cloudy, with sunny intervals at noon.	8	
9	29.948	29.991	68.4	55.0	62.5	55.0	55.0	50.0	W	2.5	W	2.0	0.00	2 W	4 Cu.	2 W	3 Cu.	Fine, clear, sunny.	9	
10	30.106	30.162	66.1	48.8	58.5	51.5	54.4	46.6	W	2.0	NE	1.5	0.00	1 NW	4 Cu.	1 Wly	2 Cu. + 1 St.	Fine, sunny.	10	
11	30.076	30.028	63.4	46.8	57.5	49.8	54.0	49.5	NW	1.0	Ely	1.0	0.00	1 W	4 Cu.	1 Wly	8 Cu.	Fine; cloudy, with sunny intervals.	11	
12	29.936	29.918	56.7	50.4	55.8	53.2	50.4	49.0	Ely	1.0	E	1.0	0.03	1 NW	8 Cu.	1 E	10 W.	Fine; mostly sunny; evening, overcast, r.	12	
13	29.959	29.942	57.3	42.9	50.2	45.6	51.5	47.4	E	2.0	W	1.0	0.12	2 E	1 Cu.	1 W	4 Cu.	Fine; mostly sunny.	13	
14	29.963	29.993	60.9	44.3	52.3	45.1	53.4	48.8	NW	2.0	W	2.0	0.00	2 W	4 Cu.	2 W	9.5 Cu.	Fine; sunny at times.	14	
15	29.965	29.865	63.4	45.2	54.5	48.5	53.3	49.2	NW	1.0	W	1.5	0.00	2 W	4 Cu.	0	0	Fine, sunny.	15	
16	29.790	29.787	64.1	45.9	57.5	51.5	57.0	52.1	NW	1.0	NW	0.5	0.00	1 W	4 Cu.	1 W	10 Cu.	Fine; cloudy, with short sunny intervals.	16	
17	29.818	29.849	59.1	48.3	57.0	52.5	54.3	53.2	Ely	0.5	NE	1.5	0.11	1 W	6 Cu.	n.d.	10 St.	Sunny till 11h. then cloudy; sho. 1.5 h. till 1.5 h. + 1.5 h. + 1.5 h.	17	
18	29.873	29.936	59.0	50.4	54.8	51.4	53.8	51.0	W	1.0	NE	1.0	0.18	1.5 W	10 Cu.	1.5 Wly	10 Cu.	Cloudy; a few brisk sho.; sunny inters. during afternoon.	18	
19	29.965	29.985	58.7	50.6	55.8	50.3	53.8	51.1	Ely	1.0	NE	2.0	0.00	1 NW	4 For. Cu.	n.d.	9 St.	Fine; mostly sunny; sho. at 19h.	19	
20	30.022	30.049	57.9	49.3	53.8	50.8	49.3	46.2	W	1.0	E	1.5	0.00	2 NW	10 Cu.	2 NE	3.6 Cu.	Fine; cloudy till 1.3h. then mostly sunny.	20	
21	30.079	30.050	57.6	47.9	52.6	47.5	48.8	47.1	E	2.0	calm	0	0.00	1.5 W	8 Cu.	0	0	Cloudy; sunny at times; very clear.	21	
22	29.988	29.889	63.1	43.4	54.5	51.8	59.7	57.3	E	0.5	W	2.5	0.13	2 W	10 For. bi-st.	2.5 W (ce.)	10 Cu. + rce.	Overcast; conth. r. bet. 10h. + 11h. + sho. aft. 16h. 30 m.	22	
23	29.938	30.001	71.2	55.8	58.9	57.7	60.0	56.1	W	1.0	W	0.5	0.02	2.5 W	10 Cu. + rce.	n.d.	3 St.	Thermos. read at 8h. 15 m.	23	
24	30.002	29.892	60.0	51.7	53.2	52.8	57.0	55.6	E	2.0	E	1.0	0.00	2 E (fog)	10 St. + r.	n.d.	7 St.	Cloudy till about noon, then sunny.	24	
25	29.846	29.811	72.8	52.8	57.5	55.1	61.0	58.3	Variable	0.5	calm	0	0.00	2 SW	1 Cu.	n.d.	7 Cu. + r.	Cloudy; rather hazy; sunny at times during afternoon.	25	
26	29.684	29.563	73.0	55.1	57.8	56.6	61.2	58.0	ESE	2.0	SE	2.5	0.00	2.5 W	9 Cu. + r.	n.d.	10 For. bi-st.	Fine; sunny; brisk sho. at 16h. 30 m.	26	
27	29.682	29.715	72.2	53.7	62.6	57.8	58.0	55.8	SW	2.0	calm	0	0.04	2.5 SW	2 Cu.	n.d.	1 St.	Cloudy, with inters. of bright sunshine during forenoon; li.	27	
28	29.689	29.607	75.8	54.6	61.2	57.0	61.0	58.0	E	2.0	calm	0	0.08	2 SE	1 Cu. + r.	n.d.	10 Cu. + r.	Fine; mostly sunny.	28	
29	29.499	29.432	64.4	57.8	58.2	57.0	59.3	56.1	E	1.0	SW	2 1/4	0.27	2.5 W	9 Cu. + r.	2 St.	9 Cu. + r.	Fine, sunny; brisk sho. at 16h. 30 m.	29	
30	29.393	29.387	66.7	56.5	57.5	55.0	56.5	53.3	W	3.0	SW	1.0	0.02	2 W	10 Cu. + r.	1.5 W	2 Cu. + r.	Overcast; heavy rain; sun at 1.5 h. + 1.5 h. + 1.5 h.	30	
31	29.206	29.328	59.8	53.7	57.6	55.8	56.3	54.7	Variable	0.5	W	2.5	0.25	2.5 W	10 Cu. + r.	2 Wly	10 For. bi-st.	Cloudy; a few passing sho.	31	
Sums.	927.557	927.138	2006.1	1583.9	1667.8	1647.8	1640.7	1640.7	17.2	48.7	1.69	1.69	204	207	6.6	6.7				
Corrected Means.	29.921	29.908	64.7	51.1	57.5	53.2	56.3	52.9	1.52	13.4	1.69	1.69	66	67						
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			

BAROMETER, "corrected Mean" = 29.921 at 9 h.

"Corrected Mean" at 20 h. 45 m. = 29.908  
70 feet = 29.837  
Mean, reduced to 32°, and Sea-level, = 29.914Highest corrected Reading at 11h. 20 = 30.337  
Universal Time, on the 31st.Lowest corrected Reading at 4h. 5 = 29.206  
Universal Time, on the 31st.

Difference, or Monthly Range, = 1.131

S. - R. THERMOMETERS (in shade, &amp;c.) = 75.8

Highest in Month (corrected for Index Errors) on the 28th = 75.8

Lowest in Month, (corrected for Index Errors), on the 13th = 42.9

Difference, or Monthly Range, = 32.9

"Corrected Mean" of all the Highest, (Col. 3), = 64.7

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

Difference, or Mean Daily Range, = 13.6

Calculated Mean Temperature of Month, = 57.9

HYGROMETER, "Corrected" Mean of 9 h. and 21 h. = 56.9

Reading of Dry Bulb (Cols. 5 and 7), = 56.9

"Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), = 53.0

Computed Temperature of Dew-Point, = 49.4

Do. Elastic Force of Vapour, = 3.53

Relative Humidity (Saturation = 100), = 76

RAIN fell on 14 Days; Amount, = 1.69 Inches.

WIND.		SUMMARY.	
Direction	Force	Mean Force.	Mean Velocity in miles per day.
9 h.	12	29.6	2.152
21 h.	28.1	4.11	4.134
Mean.	0.100	0.304	3.143

## 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.	st.	" stratus.
cu-st.	" cumulo-stratus.	sc.	" scud.
d.	" dew.	sl.	" sleet.
f.	" fog.	s.	" snow.
fr.	" frost.	so. ha.	" solar halo.
h. fr.	" hoar-frost.	sq.	" squall.
h. d.	" heavy dew.	sq.	" squall.
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.

Observations made and Return verified by

Greatest Daily Range = 21.2 (Signed) on the 28th

James Colman &amp; George Redpath



1887  
Aug 10  
1887

Leith  
Aug 5 1887

3

WILLIAM W. BROWN



## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *September* 188*7*; 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. 48,078, 0.75				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.	Min. Kew No.	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	29.438	29.372	67.0	53.0	57.5	53.9	57.2	54.0	WSW	2.5	SE	1.0	0.09	1.5 W	16 i. - dt.	2.6 n. - dt.	10 f. m. bi. - dt.	Thermos. read at 8h. 15m. Fine, sunny.	1	
2	29.021	29.222	61.1	52.5	57.0	54.0	55.4	52.1	SE. var.	0.5-1	W	3.5	.74	1.5 S W	8.6 n. - dt.	2.7 S W	10 f. m. bi. - dt.	do. do. [day; t. v. bet. 10.8 & 10.20, and at 12h. 50y at 4h. 17h. Very variable; o'cast. cond. r. till 6.2h. & heavy sho. at intro during]	2	
3	29.489	29.602	65.9	52.8	57.0	53.0	54.1	53.0	WSW	3.0	SE	0.5	11	1.5 W	4.6 i. - dt.	2.5 W	9.6 n. - dt.	do. do. Fine till 16h. then heavy sho. at intervals.	3	
4*	29.505	29.437	59.6	52.8	55.0	53.8	53.9	52.3	E	1.0	W	1.5	.24	1.5 SE	10.6 n. - dt.	1.5 S W	6.6 n. - dt.	do. do. [and t. v. account by h. r. at 17h. 10 m. Cloudy, with sunny inters. aft. noon; sho. during aft. noon]	4	
5	29.354	29.197	58.1	48.7	53.5	52.2	52.2	51.1	S. var.	0.5	E	2.5	.18	1.5 S W	10.6 n. - dt.	n. d.	10 n.	Thermos. read at 8h. 15m. Cloudy; r. after 15h. 30 m.	5	
6	29.291	29.450	53.1	50.9	51.5	51.2	52.0	50.0	E	2.0	E NE	3.55	.77	2.5 E (ce)	10 n.	n. d.	10 n.	O'cast; cond. r. till 12.2h. & sho. at intro. later; egl. at 2h.	6	
7	29.818	30.122	54.6	45.2	48.0	43.9	45.2	43.4	N	2.0	S W	0.5	.09	2.4 N NE	10.6 n.	0	0	Thermos. read at 8h. 15m. Fine, cloudy; sunny at times; evening hazy.	7	
8	30.192	30.006	62.2	40.9	55.8	49.8	55.0	50.2	W	2.5	S W	3.4	.00	2.4	6.6 i. - dt.	n. d.	10 f. m. bi. - dt.	Fine; sunny till abt. 15h. then cloudy; evening equally.	8	
9	29.823	29.787	63.3	49.6	60.0	?	50.4	47.0	WSW	3.5	W	2.5	.07	4.5 W (ce)	9.5 n. - dt.	0	0	Cloudy; equally; sho. at intro. aft. noon; cloudless at 21h.	9	
10	29.738	29.754	59.2	46.9	53.2	48.5	50.9	48.1	W	3.5	WSW	2.55	.00	3 W	7.6 n.	3.5 S W	6.6 n.	Fine, sunny.	10	
11*	29.654	29.711	58.9	49.0	50.0	49.1	49.0	48.0	W	1.0	SE by	0.5	.26	2 W	10.6 n.	n. d.	6 St.	O'cast; cond. r. from 6h. till 9.2h.; day fine till 14.2h. then	11	
12	29.641	29.721	53.1	44.4	49.2	46.2	47.1	44.3	W	2.5	N W	2.0	.09	2 N W	7.6 n.	n. d.	3 St.	Cloudy; sunny at times; light sho. at noon & 18h. & 21h.	12	
13	29.880	29.898	55.6	42.8	50.8	44.9	52.0	46.8	N W	2.0	N W	2.5	.00	2 N E	10.6 n. - dt.	n. d.	10 St.	Fine, cloudy; sunny at times.	13	
14	29.845	29.805	52.0	47.8	48.4	47.5	50.2	48.7	W	2.0	N E	2.25	.52	2.5 N NE (ce)	10 n.	2 N E by	7 St. - Amt. variable.	O'cast; cond. r. from 4h. till 13.2h. & sho. after 19h.	14	
15	29.798	29.835	58.2	47.0	51.1	48.8	52.0	48.3	W N W	2.0	W	2.25	.03	1 N	4.6 n.	n. d.	10 f. m. bi. - dt.	Fine; mostly sunny; overcast, h. r. at 2.3h.	15	
16	29.877	30.008	55.2	46.9	51.3	48.8	50.7	49.2	W	1.5	W	1.0	.14	2 W N W	10.6 n.	n. d.	9 St. - th.	Cloudy; li. sho. at 15h. and 18h.	16	
17	30.170	30.381	57.2	48.7	54.7	49.8	52.2	50.1	N	2.0	E	2.0	.15	2 E by	16 n. near hor.	n. d.	6 St.	Variable; showery; h. sho. at 11h. and 13.2h.	17	
18*	30.501	30.520	56.9	42.2	48.5	47.0	53.3	52.0	Variable	0.7	N	1.75	.00	1.5 W	10h. & 6n.	n. d.	6 St.	Fine; mory. thick h. with h. d.; day, mostly sunny.	18	
19	30.485	30.393	61.8	46.4	51.4	47.5	54.0	50.6	W	2.0	W	2.25	.00	1.5 N NE	6.6 i. - dt.	n. d.	4 faint St.	Fine; mostly sunny.	19	
20	30.407	30.417	60.7	45.0	53.9	49.3	50.3	49.0	E NE	1.5	E	1.5	.00	2 N NE	4.6 n. - dt.	n. d.	10 St.	Fine; morning hazy; day sunny.	20	
21	30.404	30.352	53.9	49.8	51.4	49.3	53.0	50.4	S W	1.0	S W	0.5	.00	2 S W	10.6 n.	n. d.	10 St.	Cloudy; sh. drizzle at times between 8h. and 9h.	21	
22	30.342	30.400	57.8	50.7	54.1	51.8	50.7	48.7	N W	1.5	Caln	0	.00	2 N W	1 f. m. bi. - dt.	n. d.	3 St.	Fine, sunny; rather hazy.	22	
23	30.472	30.555	61.2	45.2	53.2	50.3	52.1	50.1	W	1.5	E	2.2	.00	1.5 N	10.6 n. - dt.	n. d.	10*	*Structure doubtful. Fine; sunny at times.	23	
24	30.552	30.400	54.7	48.1	50.8	48.0	52.1	51.0	SE	1.0	Variable	1.0	.00	2 N NE by	10*	n. d.	7 St. - th.	*Structure doubtful; prot. Cal. Cloudy; sunny intervals between 13h. and 15h.	24	
25*	30.211	29.904	56.9	51.4	54.7	52.2	54.4	51.3	W	2.0	WSW	2.2	.00	2 N W	10.6 n.	n. d.	10 f. m. bi. - dt.	Cloudy, with sh. sho. between 13h. and 14h.	25	
26	29.534	29.441	58.9	48.8	55.8	54.2	48.8	46.3	W	2.5	W	2.5	.06	2.5 W (ce)	10 f. m. bi. - dt.	2 N W by	16 n. (hor.)	Cloudy, with sunny inters.; sho. from 5h. till aft. gh.	26	
27	29.263	29.233	51.2	42.5	49.2	45.3	42.5	40.3	W	2.5	S W	2.0	.06	2 W	7.6 n.	n. d.	1 St. (hor.)	Variable; showery till about 13h. then fine.	27	
28	29.292	29.346	50.1	37.5	45.3	43.3	47.0	45.1	N	1.0	N by	1.0	.08	2 E	9.6 n.	n. d.	10 n.	Cloudy till abt. 12h. then sunny; o'cast. cond. r. aft. 19h.	28	
29	29.542	29.825	55.0	46.1	52.8	49.0	53.2	52.0	E	3.0	E NE	3.5	.15	2 E SE	16 n. - dt.	2.2 S E	2.5 E & 4 N NE	Morning and evening equally; day mostly sunny; sho. aft. 19h.	29	
30	30.025	30.139	56.3	50.9	51.8	49.1	51.9	48.1	N E	2.5	N E	2.25	.12	2.4 E NE by	16 n. on hor.	2.5 N E (ce)	10.6 n.	Fine till 14h. then showery.	30	
Sums.	895.564	896.233	1729.7	1424.5	1576.9	1431.6	1523.7	1417.5		56.5		57.2	3.95		222		213			
"Corrected Means."	29.852	29.874	57.6	47.5	52.6	49.4	51.4	49.0		1.88		1.91	3.95		7.4		7.1			
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. .... } = 29.852

"Corrected Mean" at 20 h. 45 m. ... =  $\frac{29.874}{29.786}$   
Mean, reduced to 32°, and Sea-level, =  $\frac{29.863}{29.777}$

Highest corrected Reading at  $\dots 7^h \dots$   
Universal Time, on the  $\dots 22^{\text{th}} \dots$  } = 30.555

Lowest corrected Reading at *11h*...  
Universal Time, on the *2nd*... } = *29.02*

Difference, or Monthly Range,..... = 1334

S. - R. THERMOMETERS }  
(in shade, &c.) }  
Highest in Month (corrected for Index Errors) on the 1st ..... } = 67°.0

Lowest in Month, (corrected for Index Errors), on the 28th... } = 37.5

Difference, or Monthly Range,..... = 29.3

"Corrected Mean" of all the Highest,  
(Col. 3), ..... } = 57.6

"Corrected Mean" of all the Lowest, } = 47.5  
(Col. 4), ..... }

Difference, or Mean Daily Range,..... = 10.1

Calculated Mean Temperature of Month, = 52.5

HYGROMETER, "Corrected  
Mean" of 9 h. and 21 h. }  
Reading of Dry Bulb (Cols. } = 52°.0  
5 and 7), ..... }

"Corrected Mean" of 9 h. and 21 h. }  
 Reading of Wet Bulb (Cols. 6 and 8). } = 49.2

## Computed Temperature of Dew-Point, = 46.3

$\ddagger$  Do. Elastic Force of Vapour, ... =  $\frac{315}{81} 3.5$   
 $\ddagger$  Relative Humidity (Saturation = 100), =

RAIN fell on 19 Days; Amount..... = 3.95 Inches

WIND.	SUMMARY.										
<i>Direction.</i>	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.
9 h.	3	1	2	1	1	5	2	1		1.88	
21 h.	3	2	6	3		4	9	1	2	1.91	
Mean.	3	2	5	3	0	2	12	2	1	1.90	= 3.61 <i>h</i>

NOTATION USED IN GENERAL REMARKS

a.	denotes aurora.	m.	denotes meteor.
b.	" cirro.	ms.	" meadows.
ci.-cu.	" 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.	" sleet.
f.	" fog.	sl.	" slect.
fr.	" frost.	s.	" snow.
h.-fr.	" hoar-frost.	so. ha.	" solar halo.
h.	" haze.	sq.	" squall.
h. d.	" heavy dew.	sqg.	" squig.
hl.	" hail.	t.	" thunder.
l.	" lightning.	t. w.	" thunder storm.
li. cl.	" light clouds.	v.	" wind.
li. sh.	" light showers.	g.	" gale of wind.
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*.

*Observations made and Return verified by*

Greatest Daily Range =  $21.3$  on the  $8^{th}$ . (Signed) James Bolam & George Redpath.



Smith  
Sept. 1887

3

35

50

2



## SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at LEITH, County of Edinburgh, in Lat. 55° 59' N., Long. 3° 10' W., during the MONTH of *October* 188*7*; 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. 48078.5				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.	Min. Kew No.	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	30.214	30.284	54.0	43.6	47.2	46.3	51.0	50.0	NE	1.0	N by E	0.5	0.00	0	0	2 N N W	10 S. bi. cu.	Fine; sunny till about noon, then cloudy.	1	
2	30.335	30.385	58.1	46.1	50.0	46.2	53.9	49.0	W N W	2.0	W N W	1.5	0.00	0	0	2 N W	10 Cu.	Fine; sunny till about 14h., then cloudy.	2	
3	30.397	30.374	60.1	48.8	53.0	48.0	50.0	47.2	W	2.0	W	1.5	0.00	2 N	9 Cu.	0	0	Fine; mostly sunny; evening cloudless.	3	
4	30.391	30.357	55.5	40.1	48.7	46.3	49.3	46.5	W	2.0	W	2.2	0.00	0	0	0	0	Fine, hazy; nearly cloudless.	4	
5	30.330	30.242	56.8	42.8	48.7	46.5	51.5	48.5	W	2.0	W	1.5	0.00	0	0	n.d.	10 St.	Fine; sunny till 13h., then cloudy.	5	
6	30.151	30.076	56.9	49.1	52.0	49.6	51.1	49.0	W	1.5	W	2.2	0.00	?	10 prob. Cu.	2 N	9 Cu.	Dull and hazy; sunny about noon.	6	
7	29.928	29.973	55.2	42.1	53.7	50.0	42.3	40.8	W	2.2	E N E	3.0	3.7	1.5 W	10 Cu.	n.d.	10 n.	Cloudy, with li. sh. at mths. aft. 10h.; clear, calm, n. after 15h.	7	
8	29.995	29.963	48.5	40.9	43.9	40.5	42.2	39.1	NE	2.5	N	2.5	0.8	2 E	3 Cu.	n.d.	1 St. near E. horizon.	Fine, clear, sunny.	8	
9	29.884	29.779	45.7	39.7	42.0	40.0	42.2	40.2	NE	3.0	NE	2.3	1.8	2.5 N E	3 Cu.	n.d.	4 St. - Amount variable.	Variable; shower; equally at times.	9	
10	29.684	29.750	46.8	38.6	43.6	41.0	41.2	38.1	NE	2.4	NE	1.3	2.1	2 E	9 Cu.	n.d.	9 St.	Variable; heavy sh. at times; fine after 13h.	10	
11	29.696	29.709	43.9	36.9	39.4	34.5	37.3	33.3	NE	2.5	NE	3.0	0.00	2.5 N by W	1 Cu.	0	0	Fine; sunny till aft. 13h., then cloudy; cloudless 2h.	11	
12	29.621	29.731	44.5	30.8	36.4	32.0	43.0	39.4	W	2.2	W	3.0	0.01	2.5 NE	3 Cu.	n.d.	8 St. - Amount variable.	Cloudy; li. sh. after 15h. 30m.	12	
13	29.956	29.998	47.2	40.9	43.3	39.4	41.3	37.4	NE	2.4	W	2.0	0.00	2.5 NE	3 Cu.	n.d.	8 St. - Amount variable.	Fine; sunny at times.	13	
14	29.837	30.075	44.4	38.8	42.2	37.9	39.1	35.1	NE	2.2	NE	2.5	0.00	2 N by E	9 Cu.	0	0	Fine, clear; very slight li. sh. between 11h. and 12h.	14	
15	30.233	30.345	45.7	34.9	39.0	34.9	42.0	38.7	W N W	2.0	W N W	1.5	0.00	0	0	n.d.	9.5 St.	Fine, sunny; evening cloudy.	15	
16	30.389	30.471	53.7	36.9	43.2	39.9	46.0	44.4	W	1.5	W	2.0	0.00	2.5 N	10 Cu.	0	0	Fine, sunny. - So. ha. at 9h. 15m.	16	
17	30.537	30.505	54.8	41.2	43.8	42.9	49.1	46.5	W	1.5	W	2.2	0.00	0	0	n.d.	9.5 St.	Fine, hazy.	17	
18	30.427	30.384	52.9	47.6	49.9	46.8	49.3	47.1	W	2.5	W	2.5	0.00	2 N N W	10 Cu.	n.d.	6 St.	Cloudy; fine.	18	
19	30.243	30.067	54.2	47.9	51.0	46.6	53.2	50.0	W S W	2.5	W	4 mths.	0.00	2.5 W by N	9 Cu.	4 W (se.)	10 full. rcs.	Cloudy; equally at times.	19	
20	30.263	30.370	53.5	42.8	46.5	42.4	43.0	40.1	W	2.0	W	1.5	0.00	2 N N W	2 Cu.	0	0	Fine, sunny.	20	
21	30.515	30.530	44.3	36.4	41.4	38.3	37.6	35.1	W	1.5	S W	1.0	0.00	2 N N W	10 Cu. bi. cu.	0	0	Fine, clear, sunny.	21	
22	30.388	30.243	54.9	32.1	46.9	42.2	47.5	43.7	W	2.4	W S W	2.3	0.00	2 N N W	3 Cu.	n.d.	10 S. bi. cu.	Fine; cloudy, with short sunny intervals.	22	
23	29.981	29.910	51.9	42.8	49.9	48.1	44.1	40.6	W	2.5	W N W	2.5	0.04	2.5 N W	10 S. bi. cu.	n.d.	10 full.	Cloudy; li. sh. between 8h. and 11h., and aft. 2h.	23	
24	30.191	30.488	44.1	33.8	36.8	32.3	34.3	30.4	W	2.5	W	2.5	0.02	2 N	2 Cu.	2 N	3 drizzle St.	Fine, clear, sunny.	24	
25	30.594	30.467	42.7	34.1	36.3	32.3	38.9	35.2	W N W	2.0	W S W	2.4	0.00	2 N	8 Cu.	2.4 W	10 Cu.	Fine; sunny during afternoon; rather hazy.	25	
26	30.168	29.861	50.0	38.6	45.2	40.1	50.0	46.4	S W	2.3	S W	2.0	0.04	2.5 W	10 Cu.	2.5 W	10 S. bi. cu.	Cloudy; equally; sh. aft. 18h.	26	
27	29.697	29.509	58.8	49.6	54.8	51.2	53.9	51.8	W S W	2.3	W	2.0	0.00	2.5 W by S	8 Cu.	2 W	10 Cu.	Fine; sunny at times.	27	
28	29.438	29.423	53.9	43.7	49.0	45.0	45.1	41.3	W	2.3	W S W	3.0	0.00	2.5 W	1 Cu. on hor.	0	0	Fine, sunny; li. sh. at 7h. and 16h.	28	
29	29.291	29.317	48.7	40.0	45.3	42.3	42.8	40.2	W S W	3.0	W S W	2.0	0.24	2.5 W	3.5 W	n.d.	8 faint bi. St.	Variable; shower; equally at times.	29	
30	29.174	29.136	47.9	40.2	41.1	39.1	42.1	40.0	W	1.0	S W	2.5	0.07	2.5 W	3.6 W	2.5 W	2 St.	Sunny till aft. 14h., then cloudy; sh. at mths. aft. 15h.	30	
31	29.240	29.420	47.3	38.5	41.7	39.6	38.5	37.0	W	2.0	S S W	2.0	0.01	2.5 W	8 St. n.	n.d.	10 faint bi. St.	Fine, except sh. between 9h. and 10h. 30m.	31	
Sums.	931.188	931.116	1576.9	1260.4	1406.0	1302.3	1392.8	1302.1		68.75		71.5	1.27		170		179			
"Corrected Means."	30.038	30.036	50.9	40.7	45.4	42.0	45.1	42.0		2.22		2.31	1.27		5.5		5.8			
No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			

BAROMETER, "corrected Mean" = 30.038  
at 9 h. ....

"Corrected Mean" at 20 h. 45 m. ... = 30.036

Mean, reduced to 32°, and Sea-level, = 30.037

Highest corrected Reading at 2.5h. = 30.594

Universal Time, on the 25th.

Lowest corrected Reading at 2.5h. = 29.136

Universal Time, on the 30th.

Difference, or Monthly Range, ..... = 1.458

S. - R. THERMOMETERS

(in shade, &amp;c.)

Highest in Month (corrected for Index Errors) on the 3rd. .... = 60.1

Lowest in Month, (corrected for Index Errors), on the 12th. .... = 30.8

Difference, or Monthly Range, ..... = 29.3

"Corrected Mean" of all the Highest, (Col. 3), ..... = 50.9

"Corrected Mean" of all the Lowest, (Col. 4), ..... = 40.7

Difference, or Mean Daily Range, ..... = 10.2

Calculated Mean Temperature of Month, = 45.8

HYGROMETER, "Corrected"

Mean" of 9 h. and 21 h.

Reading of Dry Bulb (Cols. 5 and 7), ..... = 45.2

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

Reading of Wet Bulb (Cols. 6 and 8), ..... = 42.0

Computed Temperature of Dew-Point, = 38.3

Do. Elastic Force of Vapour, ..... = 231.268

Relative Humidity (Saturation = 100), = 77

RAIN fell on 11 Days; Amount, ..... = 1.27 Inches.

WIND.

SUMMARY.

Direction.

9 h.

21 h.

Mean.

Calm or Variable.

Mean Force.

Mean Velocity in miles per day.

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.	st. h. r.	continued heavy rain.
cu-st.	cumulo-stratus.	st.	stratus.
d.	dew.	sc.	scud.
f.	fog.	al.	alot.
fr.	frost.	s.	snow.
h-fr.	hoar-frost.	so. ha.	solar halo.
h.	haze.	sq.	squall.
h. d.	heavy dew.	sq.	squalls.
l.	light.	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 = 22.8 on the 25th

(Signed)

James Bolam &amp; George Redpath



Leitch  
October 1889

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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* 18*87*; 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. 48078.1.5.				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. 46450	Min. Kew No. 22218	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	29.039	28.927	46.6	37.7	43.5	40.8	44.8	43.1	SS E	2.5	SE	2.0	0.11	n. d.	10.5	6.2	2.4	SSW	9.6	1
2	29.018	28.929	48.2	43.1	45.0	42.9	44.1	42.1	SE	2.0	SE	1.5	0.03	3.5	SE	7.6	2.5	10.6	10.6	2
3	28.539	28.615	48.7	36.9	44.9	41.4	37.1	36.1	SSW	2.0	SSW	1.0	0.06	2.5	SSW	3.6	n. d.	2.4	6.1	3
4	28.817	29.114	43.8	34.7	41.3	39.6	42.3	40.2	W	1.5	SSW	2.0	0.00	2.6	SE	10.6	n. d.	0.5	St. in b. sky.	4
5	29.254	29.264	48.1	41.0	43.3	41.1	44.2	42.1	W	2.0	SE	1.5	0.00	1.5	SE	10.6	n. d.	10.6	10.6	5
6	29.336	29.637	47.0	41.9	46.2	45.3	46.4	45.3	ENE	3.5	ENE	2.5	0.55	3.5	ENE	10.6	n. d.	10.6	10.6	6
7	29.849	29.927	47.5	44.8	47.2	44.9	47.1	46.3	ENE	2.5	ENE	2.5	0.96	3.5	ENE	10.6	n. d.	10.6	10.6	7
8	30.130	30.226	47.1	44.2	46.6	45.8	45.1	44.0	E by N	2.5	E	2.5	0.21	2.5	E	10.6	n. d.	10.6	10.6	8
9	30.239	30.178	46.2	43.6	44.1	43.6	43.7	41.1	E	2.5	ENE	2.5	0.12	2.5	E	10.6	n. d.	10.6	10.6	9
10	30.054	30.061	43.7	39.7	39.9	37.7	40.0	38.8	WNW	1.5	E by S	0.5	0.01	2.1	E	8.6	n. d.	1.5	10.6	10
11	30.131	30.212	45.1	38.6	42.1	41.5	44.5	41.6	E	1.0	E	1.5	0.07	2.5	E	10.6	n. d.	10.6	10.6	11
12	30.217	30.159	44.5	40.1	41.1	37.9	40.9	38.1	W	1.5	W	0.5	0.00	2.4	W by N	10.6	n. d.	10.6	10.6	12
13	30.091	29.988	41.5	38.8	39.7	36.8	40.1	36.0	W	1.0	W	1.5	0.00	0.5	W	9.6	n. d.	10.6	10.6	13
14	29.894	30.102	40.1	35.4	37.0	35.1	35.4	33.1	NE	2.5	ENE	2.5	0.09	2.5	ENE	10.6	n. d.	1.5	10.6	14
15	30.292	30.293	36.2	30.8	31.6	29.3	33.9	30.2	W	2.0	W	2.0	0.00	0	0	0	0	0	0	15
16	30.134	30.080	42.0	32.6	37.3	35.6	39.1	36.3	SSW	3.0	W	2.0	0.02	2.4	W	10.6	0	0	0	16
17	29.904	29.698	44.1	37.9	42.5	38.9	43.1	39.6	SSW	2.4	SE	2.4	0.00	2.4	W	10.6	n. d.	10.6	10.6	17
18	29.379	29.201	43.1	37.0	39.1	38.0	37.6	36.6	ENE	1.0	SE	1.5	0.03	1.5	SE	10.6	n. d.	8.6	10.6	18
19	29.256	29.472	42.0	34.6	38.4	37.5	38.8	36.9	WNW	0.5	WNW	2.0	0.00	1.6	ENE	10.6	n. d.	6.6	10.6	19
20	29.614	29.580	41.0	36.9	38.5	37.0	38.2	37.2	W	1.0	Calm	0	0.00	1.5	ENE	8.6	n. d.	10.6	10.6	20
21	29.605	29.722	44.0	33.1	36.4	36.2	42.2	41.5	SE	1.5	E	1.5	0.08	2.5	SE	9.6	2.5	6.6	10.6	21
22	29.913	30.191	44.0	40.1	42.5	41.7	40.1	36.2	E	3.5	ENE	3.0	0.27	3.5	E	10.6	3.6	10.6	10.6	22
23	30.185	30.050	40.1	34.0	37.8	34.6	35.0	32.8	W	1.5	SSW	2.0	0.00	1.5	ENE	9.6	n. d.	7.6	10.6	23
24	29.735	29.504	44.3	34.1	39.1	33.9	44.1	40.8	SSW	2.5	W	2.5	0.00	0	0	0	n. d.	10.6	10.6	24
25	29.426	29.491	44.1	38.7	39.6	38.0	42.8	40.8	SSW	2.5	SSW	2.5	0.06	3.0	W	10.6	n. d.	10.6	10.6	25
26	29.191	29.250	52.2	41.9	51.5	48.7	47.5	45.1	SSW	3.5	SSW	2.5	0.17	2.5	SSW	10.6	n. d.	10.6	10.6	26
27	29.165	29.525	47.5	38.8	44.2	39.8	39.7	38.2	SSW	2.5	W	2.4	0.22	2.5	SSW	10.6	2.4	10.6	10.6	27
28	29.724	29.751	42.0	37.2	38.9	36.8	39.9	37.2	W by S	1.5	SSW	2.0	0.06	0	0	0	n. d.	1.5	10.6	28
29	29.652	29.644	39.9	32.0	33.8	33.4	33.9	33.1	SSW	0.5	W	1.0	0.00	1.5	SSW	6.6	0	0	0	29
30	29.702	29.773	47.0	31.4	36.8	34.9	47.0	45.1	SSW	2.4	W	3.0	0.01	2.1	W	3.6	2.1	10.6	10.6	30
Sums. 889.485 890.564 131.6 141.6 142.9 146.8 143.8 145.5																				
"Corrected Means." 29.649 29.685 44.4 37.7 41.0 39.0 41.3 39.2																				
No. of Column. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17																				

BAROMETER, "corrected Mean" = *29.649*  
 at 9 h. *29.649*  
 "Corrected Mean" at 20 h. 45 m. = *29.685*  
 Height 70 feet = *29.595*  
 Mean, reduced to 32°, and Sea-level, = *29.672*  
 Highest corrected Reading at *14.8* = *30.215*  
 Universal Time, on the *15th* = *30.293*  
 Lowest corrected Reading at *5.45* = *28.539*  
 Universal Time, on the *30th* = *28.525*  
 Difference, or Monthly Range, = *1.754*

S. - R. THERMOMETERS  
 (in shade, &c.) = *52.2*  
 Highest in Month (corrected for Index Errors) on the *26th* = *52.2*  
 Lowest in Month, (corrected for Index Errors), on the *15th* = *30.8*  
 Difference, or Monthly Range, = *21.4*  
 "Corrected Mean" of all the Highest, (Col. 3), = *44.4*  
 "Corrected Mean" of all the Lowest, (Col. 4), = *37.7*  
 Difference, or Mean Daily Range, = *6.7*  
 Calculated Mean Temperature of Month, = *41.0*

HYGROMETER, "Corrected Mean" of 9 h. and 21 h. Reading of Dry Bulb (Cols. 5 and 7), = *41.0*  
 "Corrected Mean" of 9 h. and 21 h. Reading of Wet Bulb (Cols. 6 and 8), = *39.1*  
 ‡ Computed Temperature of Dew-Point, = *36.6*  
 ‡ Do. Elastic Force of Vapour, = *2.51*  
 ‡ Relative Humidity (Saturation = 100), = *84*  
 RAIN fell on *19* Days; Amount, = *3.13* Inches.

WIND.	SUMMARY.									
	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
9 h.	11	8	1	3	2	1	3	1	0	2.02
21 h.	21	8	3	0	1	4	0	1	1	1.97
Mean.	11	8	2	2	1	3	1	0	1	1.99 = 3.96

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. squalls.  
 f. fog. sl. sleet.  
 fr. frost. s. snow.  
 h. fr. hoar-frost. so. ha. solar halo.  
 h. haze. sq. squalls.  
 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.		

Observations made and Return verified by

*Greatest Daily Range = 16.4 on the 30th*

(Signed)

*James Bolam & George Redpath*



1853  
1854  
1855

1856

1857

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1900

Leith  
Nov 1887

3

Leith  
Nov 1887



## 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*87*; 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. 48078 & 725.				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. 46450.	Min. Kew No. 22218.	9 h.	21 h.	9 h.	21 h.	Amount in inches.	9 h.		21 h.								
	Inches.	Inches.			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.							
														Dry bulb. °	Wet bulb. °	Dry bulb. °	Wet bulb. °			
1	29.845	30.076	51.8	46.7	49.2	46.9	49.0	47.0	W	2.5	W	2.5	0.00	2.11	26.1-27.1	n.d.	36.1-41.1	Squally; sunny at times.	1	
2	30.124	30.020	50.1	48.1	49.0	46.3	50.0	47.2	W	2.5	W	2.4	0.00	3.11	36.1-41.1	3.5 W	10.6-16.6	Cloudy; equally.	2	
3	29.777	29.617	51.7	49.6	50.2	46.8	50.8	48.2	W	3.5	W	2.5	0.00	3.11	10.6-16.6	3.5 W	10.6-16.6	Very squally; li. sho. at 21h.	3	
4	29.751	29.832	50.8	48.9	47.3	36.5	36.2	34.7	W	2.0	W	2.0	0.21	2.5	10.6-16.6	0	0	Overcast; v. till aft. 7h.; day fine, rather hazy.	4	
5	29.723	29.593	45.1	36.0	41.6	39.6	45.1	42.1	W	2.0	W	2.2	0.00	2.5	10.6-16.6	2.5 W	7.5-10.6	Cloudy, with very li. sho. occasionally.	5	
6	29.081	29.072	45.1	35.0	42.8	40.8	36.0	35.3	S	2.0	W	2.4	0.27	3.5	3.5 W	3.5 W	7.5-10.6	Cloudy; variable at 9h. & 21h. Cloudy, brisk s. sho. at times, with li. at 12.30 h. & li. s. sho. at 21h.	6	
7	29.275	29.567	36.0	32.2	33.7	32.1	33.1	31.2	W	2.5	W	2.5	0.00	1.5	4.6-6.1	0	0	Fine; mostly sunny.	7	
8	29.515	28.829	44.0	32.1	35.1	33.7	43.4	42.6	S	1.0	W	2.2	0.16	2.5	2.5 W	n.d.	10.6-16.6	Cloudy; brisk s. sho. after 14h. 40 m.	8	
9	29.052	29.571	45.7	32.1	39.3	38.0	32.1	27.9	W	1.0	W	2.2	0.01	2.5	3.6-6.1	0	0	Fine; sunny at times; evening cloudless.	9	
10	29.802	29.895	36.0	29.1	30.2	29.4	31.1	30.2	W	1.0	W	1.0	0.00	1.5	16.6-21.1	n.d.	n.d.	Fine, hazy; li. s. sho. during afternoon.	10	
11	29.984	29.937	34.9	29.0	29.9	28.4	34.9	33.2	W	1.0	W	2.5	0.00	1.5	5.6-6.1	n.d.	2.5	Thick h.; li. s. at 21h. 15 m.	11	
12	29.991	29.719	36.0	31.1	32.5	31.6	34.3	31.3	S	0.5	SE	2.0	0.00	0	0	n.d.	10.6-16.6	Thick h.; overcast at 21h.; li. sho. at midnight.	12	
13	29.130	29.171	49.6	32.8	44.8	43.0	40.3	38.0	S	2.0	W	2.5	0.10	2.5	10.6-16.6	n.d.	10.6-16.6	Cloudy; showery.	13	
14	29.172	29.072	40.3	34.5	36.0	34.4	38.1	36.3	S	1.5	S	2.2	0.00	2.5	2.5 W	n.d.	10.6-16.6	Fine; mostly cloudy. - So. ha. at noon.	14	
15	29.243	29.261	42.1	36.2	38.4	37.3	42.1	39.3	W	1.5	S	2.3	0.01	2.5	8.6-11.1	n.d.	10.6-16.6	Thick h.; drizzle sho. bet. 8h. and 9h. and at 21h.	15	
16	28.902	29.014	47.5	40.9	45.1	42.4	43.1	40.1	W	2.5	W	3.5	0.21	2.5	16.6-21.1	n.d.	2.5	Cloudy; showery; equally at times.	16	
17	29.243	29.478	43.1	36.0	39.6	36.3	36.1	34.4	W	3.5	W	2.5	0.01	1.5	4.6-6.1	n.d.	3.6-6.1	Strong sqs. bet. 3h. and 5h.; day fine, sunny at times; equally.	17	
18	29.427	29.454	36.1	31.1	33.8	32.1	31.5	29.5	W	2.5	W	2.5	0.00	1.5	4.6-6.1	n.d.	9.5-10.6	Fine.	18	
19	29.483	29.596	40.1	30.8	36.4	35.2	40.1	37.3	W	1.5	W	2.2	0.04	2.5	9.6-11.1	n.d.	3.5	Cloudy; hazy; brisk s. sho. between 3h. and 4h.	19	
20	29.620	29.725	40.1	35.7	37.5	34.9	36.9	34.1	W	2.5	W	2.5	0.00	2.5	8.6-11.1	2.5 W	9.5-10.6	Cloudy; li. sho. at noon, and at 14.30 h.	20	
21	29.798	29.918	36.9	30.8	34.1	31.4	31.0	28.6	W	1.5	W	1.0	0.00	2.5	16.6-21.1	n.d.	2.5	Fine; mostly sunny.	21	
22	29.956	29.860	38.7	27.4	28.8	26.3	38.1	37.0	W	1.5	W	2.2	0.03	n.d.	10.6-16.6	2.5 W	9.5-10.6	Thick h. till noon; overcast, s. sho. bet. 12h. 30 m. & 17h.	22	
23	30.005	29.876	39.9	30.5	32.0	31.5	39.4	38.3	W	1.0	W	2.0	0.00	2.5	16.6-21.1	2.5 W	2.5	Fog during day; evening clearer.	23	
24	29.959	30.058	42.8	34.0	35.6	35.1	34.7	32.3	W	1.5	W	2.2	0.03	2.5	2.5 W	0	0	Fine, cloudy; cloudless at 21h.	24	
25	29.905	29.957	40.9	33.6	37.0	36.0	39.4	38.0	W	1.5	W	0.5	0.01	2.5	7.6-11.1	2.5 W	10.6-16.6	Hazy; li. drizzling sho. during afternoon.	25	
26	30.000	30.157	39.4	30.7	36.9	36.0	30.7	29.3	Variable	0.5	E	0.5	0.01	n.d.	10.6-16.6	n.d.	1.5-2.5	Thick h. with drizzle sho. during forenoon; clear at 21h.	26	
27	30.216	30.121	34.5	28.4	32.5	31.1	34.5	31.2	W	0.5	W	2.5	0.00	1.5	16.6-21.1	n.d.	10.6-16.6	Thick h. at times; sho. of soft h. at 21h.	27	
28	30.072	30.147	41.1	34.5	40.9	38.1	39.4	37.1	W	1.0	W	1.0	0.03	2.5	9.6-11.1	2.5 W	10.6-16.6	Morning hazy; with li. sho.; day fine, mostly cloudy.	28	
29	30.231	30.288	39.4	34.8	35.2	33.3	37.1	35.3	W	1.5	W	1.0	0.01	2.5	3.6-6.1	2.5 W	10.6-16.6	Cloudy; li. s. sho. bet. 12h. & 1.30 h. & s. sho. at 18h.	29	
30	30.272	30.228	38.0	34.1	36.4	34.0	34.1	32.8	W	1.0	Calm	0	0.00	1.5	8.6-11.1	1.5 W	10.6-16.6	Cloudy; hazy.	30	
31	30.038	29.830	37.1	29.1	31.9	31.2	36.6	33.5	W	2.0	W	2.2	0.01	2.5	9.6-11.1	2.5 W	10.6-16.6	Cloudy; s. sho. during early morn. & at 9h.; thick h. at times.	31	
Sums.	420.562	420.939	448.8	462.8	463.7	449.7	449.2	441.3		54.0		63.5	1.15		184		191	Note.—Thermometers read at 9h. 20 m. on 21st, 23rd and 30th.		
"Corrected Means."	29.696	29.708	41.8	34.3	37.6	35.8	38.0	35.8		1.74		2.05	1.15		5.9		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"

at 9 h. = 29.696

"Corrected Mean" at 20 h. 45 m. = 29.708

Height 70 feet = 29.625

Mean, reduced to 32°, and Sea-level, = 29.702

Highest corrected Reading at 20.45 m. = 30.288

Universal Time, on the 29th. = 30.288

Lowest corrected Reading at 22h. = 28.828

Universal Time, on the 8th. = 28.828

Difference, or Monthly Range, = 1.459

## S. - R. THERMOMETERS

(in shade, &amp;c.) = 51.8

Highest in Month (corrected for Index Errors) on the 1st. = 51.8

Lowest in Month, (corrected for Index Errors), on the 22nd. = 27.4

Difference, or Monthly Range, = 24.4

"Corrected Mean" of all the Highest, (Col. 3), = 41.8

"Corrected Mean" of all the Lowest, (Col. 4), = 34.3

Difference, or Mean Daily Range, = 7.5

Calculated Mean Temperature of Month, = 38.0

## HYGROMETER, "Corrected"

Mean of 9 h. and 21 h. = 37.08

Reading of Dry Bulb (Cols. 5 and 7), = 35.8

"Corrected Mean" of 9 h. and 21 h. = 35.8

Reading of Wet Bulb (Cols. 6 and 8), = 33.1

Computed Temperature of Dew-Point, = 33.1

Do. Elastic Force of Vapour, = 1.89

Relative Humidity (Saturation = 100), = 84

RAIN fell on 16 Days; Amount, = 1.15 Inches.

TABLE FOR ESTIMATING FORCE OF WIND.

Estimated Force, 0-6.

Common Designation.

Estimated Force, 0-6.

Common Designation.

0-5

Very light air.

1-5

Light breeze.

2

Fresh breeze.

Very fresh.

Blowing hard.

Blowing a gale.

Violent gale.

\* 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 = 16.8° on the 13th

(Signed)

James Pollock &amp; George Redpath.

Observations made and Return verified by



Leith  
Dec 1889  
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