

# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Bogside Lochet-Cushnie, County of Aberdeen, in Lat. 57° 10' 50", Long. 2° 45' 0", Distance from Sea 28 miles.  
Height of Cistern of the Barometer above Mean Sea-level 885 feet, above Ground 3 feet. During the MONTH of January 1875.  
The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.				SEA.	OZONE.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc.  Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.		P.M.							
		Barometer. No.	Attached Thermometer.	Barometer. No.	Attached Thermometer.	Max. No.	Min. No.	Max. No.	Min. on Sun's rays.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Velocity (0-10), and Species.	Amount (0-10), and Species.	Velocity (0-10), and Species.	Amount (0-10), and Species.	No. 3 inches.	12 inches.	No. 22 inches.	No. 3 inches.	12 inches.	No. 22 inches.				
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°				
	1	29.140	32	28.840	34	29	11	31	20	26	24	29	28	SW 1.5	5	SE 3	0.2930	50	3 st	10 st	3							sun. hurricane, roads worse blocked up than for many years.	1		
	2	28.500	35	28.720	39	39	27	40	26	33	32	36	35	SW 1.5	11	W 5	0.76360	—	4 st	5 st	—								2		
	3	28.440	39	28.800	40	40	33	45	27	38	36.5	40	37	SW 1.5	11	W 2	0.68620	—	3 st	—	4								3		
	4	28.800	39	28.700	40	39	32	45	27	26	24	37	36	SE 3	11	W 5	0.83620	16	10 st	10 st	—									4	
	5	28.830	41	28.870	42	41	35	41	30	38	36	41	40	SW 5	11	W 5	0.3380	—	9 st	10 st	—									5	
	6	28.880	39	28.950	40	44	37	48	35	39	38	40	39	SW 5	11	W 5	0.2820	—	10 st	10 st	1									6	
	7	29.100	40	29.170	44	43	34	55	33	39	37	39	38	SW 5	11	W 5	0.29240	04	10 st	10 st	—									7	
	8	29.220	42	29.160	40	39	28	48	24	30	29	35	35	SW 5	11	W 5	0.34930	—	—	10 st	3									8	
	9	29.000	41	28.800	41	36	32	36	30	35	35	36	36	SW 5	11	W 5	0.54050	04	10 st	10 st	—									9	
	10	28.840	41	28.860	44	40	34	40	31	38	38	36	36	SW 5	11	W 5	0.51420	—	10 st	10 st	—									10	
	11	28.940	42	28.980	45	45	35	62	28	35	34	39	38	W 5	11	W 5	0.55870	02	—	10 st	3									11	
	12	28.980	43	28.600	45	39	35	39	30	37.5	37	40	40	SW 5	11	W 5	0.56630	—	10 st	10 st	—									12	
	13	29.000	43	29.030	45	42	33	43	27	38	37	42	42	SW 1	11	W 5	0.64200	03	8 st	10 st	—									13	
	14	28.900	44	29.000	46	47	38	60	31	43	42	41	40	SW 5	11	W 5	0.71780	02	10 st	—	3									14	
	15	28.830	45	28.500	46	45	36	46	34	40	41	45	43	SW 5	11	W 5	0.98810	06	10 st	10 st	—									15	
	16	28.530	46	28.500	46	45	37	45	27	40	38	41.5	39	SW 5	11	W 5	0.38212	—	5 st	10 st	1									16	
	17	28.640	44	28.680	45	44	32	55	21	34	33	38	36	SW 5	11	W 1	0.7770	04	5 st	10 st	7									17	
	18	28.500	45	28.440	45	49	43	50	26	44	43	42	39	SW 5	11	W 1.5	0.70280	02	10 st	10 st	—									18	
	19	28.380	44	28.220	43	50	36	50	29	43.5	42	43	39	SW 1	11	W 3	0.66430	02	10 st	—	2									19	
	20	28.300	45	28.310	44	44	31	43	27	36	35	33	33	W 5	11	W 2	0.33370	35	10 st	10 st	—									20	
	21	28.500	40	28.510	39	32	28	38	15	26	24.5	29	28	W 5	11	W 2	0.38090	—	—	—	7									21	
	22	28.730	30	28.900	38	32	26	36	20	29	28	28	27	SW 2	11	W 5	0.39200	05	3 st	—	7									22	
	23	28.600	37	28.435	38	34	24	35	15	35	35	32	32	SE 5	11	W 5	0.55180	20	10 st	10 st	—									23	
	24	27.900	38	27.900	40	37	25	40	16	38	37	32.5	32	E 2	11	W 5	0.98810	11	10 st	10 st	—									24	
	25	28.200	38	28.900	38	34	25	34	16	34	32	33	31	W 1	11	W 1.5	0.36030	06	5 st	10 st	2									25	
	26	29.130	36	29.000	37	33	20	33	14	24	24	31	31	SW 5	11	W 3	0.55550	—	10 st	10 st	—									26	
	27	28.950	39	28.800	43	46	29	50	28	42.5	41	45	43	SW 2	11	W 3	0.25250	—	6 st	10 st	—									27	
	28	28.860	43	28.900	45	48	37	52	38	44	41.5	39	37	SW 2	11	W 1.5	0.91070	03	10 st	10 st	3									28	
	29	29.360	43	29.480	41	39	28	62	25	33	32	30	29	W 5	11	W 3	0.31320	—	3 st	10 st	4									29	
	30	29.480	39	29.400	40	38	23	39	16	31	30	39	37	SW 5	11	W 3	0.66250	24	10 st	10 st	—									30	
	31	29.300	41	29.200	46	50	32	60	28	47	45	46	42	SW 2.5	11	W 1.5	0.31640	—	10 st	6 st	4									31	
Sums.		138	13	172	12	15	14	11	14	151	141	131	15	32		375		197													
Means.		28.799	40.5	28.792	41.9	40.7	36.8	44.9	25.5	36.0	34.9	37.4	36.1	0.9		1.2															
+ Total Corrections for Instru- mental Errors.		-100		-100																											
+ Corrections for Diurnal Range.																															
"Cor- rected Means."																															
No. of Column		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

NOTATION USED IN GENERAL REMARKS.

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

TABLE FOR ESTIMATING FORCE OF WIND.

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

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† = 28.668  
for Temp. (Col. 2), = 28.699 - 0.031  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 28.657  
for Temp. (Col. 4), = 28.697 - 0.035  
Mean at Station, corrected, and at 32°, = 28.662  
Correction for height, feet above Mean Sea-level, = 982  
Mean, reduced to 32°, and Sea-level, = 29.644  
Highest Reading, corrected for Index error, on the 50 th, = 29.480  
Lowest Do. Do., on the 24 th, = 27.900  
Difference, or Monthly Range, = 1.580

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 19 th, = 50.0  
Lowest in Month, corrected for Index errors, on the 1 th, = 11.0  
Difference, or Monthly Range, = 39.0  
"Corrected Mean" of all the Highest, (Col. 5), = 40.7  
"Corrected Mean" of all the Lowest, (Col. 6), = 30.8  
Difference, or Mean Daily Range, = 9.9  
\*\* Calculated Mean Temperature of Month, = 35.8  
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 11 th, = 62.0  
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 44.9  
Lowest at Night, Black Bulb, (corrected for Index errors), on the th, = 2.0  
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 25.5  
Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 36.7  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 35.5  
†† Computed Temperature of Dew-Point, = 33.7  
†† Do. Elastic Force of Vapour, = 1.95  
†† Do. Weight of Vapour in a Cubic Foot of Air, = 90  
†† Relative Humidity, (Saturation = 100), = 90  
RAIN fell on 18 Days; Amount in Inches, = 1.99

WIND.												SUMMARY.			
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.				
A.M.	1				2	3	9	3	2						
P.M.	2				2	3	4	9	1						
Mean.	1	0	1	2	13	6	8	2	0	1.65					

Evaporation 0.29 inches.

Observations made and Return verified by William Bruce  
Bogside Lochet-Cushnie

(Signed) William Bruce

The weather has been very changeable during the month, and backward for out door labour. Farm operations was at one time well advanced, but now they are getting back. Straw and hay scarce and very dear. Turnips plentiful. People healthy, no disease in the district except diphtheria in one family, which cut off two of the family. severe colds prevalent. Cattle healthy and thriving.







# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Bogside Lochet-bushme, County of Aberdeen, in Lat. 57°10'50", Long. 2°45'00", Distance from Sea 28 miles.

Height of Cistern of the Barometer above Mean Sea-level 885 feet, above Ground 3 feet.

During the MONTH of February 1875.

The Hours of Observation are of Greenwich Time.

[illegible][illegible]

<b>BAROMETER,</b> "corrected Mean" at 9 A.M., <i>minus</i> the Correction +†)	=	29.095
for Temp. (Col. 2),	=	29.124 - 0.029
<b>"Corrected Mean" of Barometer at 9 P.M., <i>minus</i> the Correction +†)</b>	=	29.095
for Temp. (Col. 4),	=	29.127 - 0.032
<b>Mean at Station, corrected, and at 32°,.....</b>	=	29.095
Correction for height, feet above Mean Sea-level,.....	=	992
<b>Mean, reduced to 32°, and Sea-level,.....</b>	=	30.087
Highest Reading, corrected for Index error, on the 15 <sup>th</sup> ,.....	=	29.650
Lowest Do. Do., on the 11 <sup>th</sup> ,.....	=	28.800
Difference, or <b>Monthly Range,</b> .....	=	0.850

<b>S.-R. THERMOMETER</b> , (in shade, etc.), <b>Highest in Month</b> , (corrected for Index Errors), on the <u>14</u> th, .....	=	<u>47.0</u>
<b>Lowest in Month</b> , corrected for Index errors, on the <u>5</u> th, .....	=	<u>15.0</u>
Difference, or <b>Monthly Range</b> , .....	=	<u>32.0</u>
"Corrected <b>Mean</b> " of all the <b>Highest</b> , (Col. 5), .....	=	<u>36.6</u>
"Corrected <b>Mean</b> " of all the <b>Lowest</b> , (Col. 6), .....	=	<u>27.8</u>
Difference, or <b>Mean Daily Range</b> , .....	=	<u>8.8</u>
** Calculated <b>Mean Temperature</b> of Month, .....	=	<u>32.1</u>
<b>S.-R. THERMOMETER</b> , <b>Black Bulb in Sun</b> , <b>Highest</b> , (corrected for Index Errors), on the <u>12</u> th, .....	=	<u>61.0</u>
"Corrected <b>Mean</b> ," (Col. 7), of <b>Black Bulb</b> , <b>Max. in Sun</b> , .....	=	<u>43.0</u>
<b>Lowest at Night</b> , <b>Black Bulb</b> , (corrected for Index errors), on the <u>6</u> th, ...	=	<u>10.0</u>
"Corrected <b>Mean</b> ," (Col. 8), of <b>Black Bulb</b> , <b>Min.</b> on grass, .....	=	<u>24.6</u>
Difference of above Means or Range ("exposed"), .....	=	

<b>HYGROMETER, Mean</b> (corrected) A.M. and P.M. Reading of <b>Dry Bulb</b> , (Cols. 9 and 11), .....	=	32.2
<b>Mean</b> (corrected) A.M. and P.M. Reading of <b>Wet Bulb</b> , (Cols. 10 and 12), .....	=	31.3
‡ Computed <b>Temperature of Dew-Point</b> , .....	=	29.4
‡ Do. <b>Elastic Force of Vapour</b> , .....	=	163
‡ Do. <b>Weight of Vapour in a Cubic Foot of Air</b> , ...	=	
‡ <b>Relative Humidity</b> , (Saturation = 100), .....	=	88
<b>RAIN</b> fell on 1/2 Days; Amount in Inches, .....	=	1.59

WIND.		SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.
A.M.	4		6		5	3	6	3	1		
P.M.	6		6		5	3	5	2	1		
Mean.	5	0	6	0	5	3	5	3	1	.95	

Evaporation 0.74 of an inch.

Observations made and  
Return verified by { William Bruce  
Boyside, Leitch-Cushnie.

(Signed) William Bruce  
The weather during the month has been very changable, and backward for farming operations, which are getting behind. Turnips plentiful, but straw very scarce and dear, corn and fodder in great demand at 50/ per qr. No disease in the district except severe cold which has been very prevalent, and very sore on old people. Several ~~of~~ young cattle have died during the month of quarter-all cattle in general healthy.



5/8/1895  
 J. B. 1895

To

Mr ALEXANDER BUCHAN,

*Secretary of the Meteorological Society of Scotland,*

EDINBURGH

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

Barberry, . . . . .	Shrubs, etc.	First in Blossom.	Apple, . . . . .	First in Blossom.	Fruit in general.	Cuckoo, . . . . .	MOGAWORY BRDS.	First Arrival.	Departure.
Bontree of Elda, . . . . .			Black Currant, . . . . .			Cutew, . . . . .			
Broom, . . . . .			Cherry, . . . . .			House-Swallow, . . . . .			
Hazel, . . . . .			Gean, . . . . .			Lapwing, . . . . .			
Hawthorn, . . . . .			Groesberry, . . . . .			Plover, . . . . .			
Holly, . . . . .			Teach, . . . . .			Sand-Martin, . . . . .			
Laburnum, . . . . .			Pear, . . . . .			Starling, . . . . .			
Lilac, . . . . .			Plum, . . . . .			Swan, . . . . .			
Mountain Ash or Rowan, . . . . .			Strawberry, . . . . .			Rail or Corn Crane, . . . . .			
Red Flowering Currant, . . . . .									
Rhododendron Ponticum, . . . . .									
Whin, . . . . .									

FOREST TREES.	Alder, . . . . .	Asb, . . . . .	Beech, . . . . .	Elm, . . . . .	Larch, . . . . .	Lime, . . . . .	Oak, . . . . .	Sycamore or Plane,
In flower.								
Leaf Beds								
In First year.								
In Leaf.								
Invested of								
WOODS.	Barley, . . . . .	Bare or Bigg, . . . . .	Oats, . . . . .	Wheat, . . . . .	Beans, . . . . .	Pease, . . . . .	Potatoes, . . . . .	Turnips, . . . . .
GROPS.								Rye Grass, . . . . .
Sowing or								
Planting.								
above Ground.								
Appling								
In Par								
First Out								
or blased.								

Observations in connection with the periodical return of the seasons.

[illegible]

The Dry Bulb Thermometers usually, but not necessarily, mounted on one frame. As apparently slight deviations from the approved form of this apparatus seriously vitiate the Hydro-metrical Observations, Observers are specially requested to attend to the following conditions.—The bulbs must hang down by at least an inch free from the scales and frame to which they are attached; the frame must be such as will bring the tubes forward by an inch from any board on which it may be suspended; the thermometer below must be covered, and altogether placed to the side, and in a sheltered level of the wet bulb, but in no case under the neck of the bulb; the muslin must be of medium fineness, and fastened at the back of the bulb by the cotton, which also supplies it with water. It must be seen to by the Observer that the muslin is always clean and moist, and the water pure. In frosty weather, observation is a matter of much delicacy, and must be made with great care. The bulb must be motioned by immersion from 16 to 20 minutes before the hour of observation. From the most delicate machinery circumstances, the time of waiting must be taken to suit the state of the atmosphere.

In reading the scale exactly opposite the tip of the index to the column of mercury. The reading ought to be taken tenths of a degree, and noted in decimals. Thus the Thermometer will be read— $-39^{\circ} \cdot 9$ ,  $40^{\circ} \cdot 0$ , or  $40^{\circ} \cdot 1$ ; or again,  $40^{\circ}$ ,  $40^{\circ} \cdot 5$ , or  $40^{\circ} \cdot 6$ , according as it indicates a little under, an exact coincidence with, or a little over  $40^{\circ}$ , or  $40^{\circ} \cdot 5$ , respectively. So also  $40^{\circ}$ , and  $40^{\circ} \cdot 8$ , more or less must be registered  $40^{\circ} \cdot 2$ , or  $40^{\circ} \cdot 3$ , and  $40^{\circ} \cdot 7$ , or  $40^{\circ} \cdot 8$  respectively. In reading Rathcliff's Minimum Thermometer, the indication of that end of the index which is next the surface of the spirit is alone noted. On opening the Thermometer Box, the Dry and Wet Bulb Thermometers are to be first, and rapidly, read, inasmuch as they are readily affected by heat from the person of the Observer.

The Hygrometer is read at 9 A.M. and 9 P.M. The Self-Registering Thermometers are read at 9 P.M. only, as indicating the greatest and least degrees of temperature in the 24 hours preceding. It is not a matter of course, however, when the Self-Registering Thermometers are read, that the extremes may not at any hour; and it is necessary to refer their occurrence to the Meteorological day. In the Society's school, the indications registered on the 3d are those of the actual day, the observations commencing at 9 P.M. on the 2d, and ending till 9 P.M. on the 3d.

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

In selecting instruments, the following points require attention.—

be put behind the tube. It must be hung truly perpendicular to the axis of the instrument, and must not be exposed to neither the sun's direct rays nor the perpendicular rays of the sun, and must not be hung against a wall heated by a fire. The observer, being to secure that the whole instrument, thermometer, and aneroid, are truly vertical, the contained mercury, and the aneroid, must be allowed to settle, when read, at one uniform temperature, and at a position in which it will be least liable to sudden changes of temperature.

In taking an Observation, the Attached Thermometer is first noted; the tube must then be gently tipped and the aneroid-adjustment carefully made. The eye, by raising and lowering it, must be directed to the level of the back and front of the tubes—usually to the edge of the vernier, which must be carefully adjusted so as to form exactly a tangent to the convex surface of the mercury in the tube. Observations must be taken quickly, so as to prevent the observer's hands and person from affecting the mercury in the tube. The use of a lens will facilitate an accurate adjustment and reading of the Barometer. A mistake not unfrequently made by these beginners to observe, consisting in setting the edge of the vernier to the level of the clear surface of the mercury which is in direct contact with the glass tube, must be carefully avoided.

The errors most frequently made in reading the Barometer are errors of 1-1000 inches, 0-500 inch, and 0-650 inch; that is to say, instead of 29-365 inches, either of the following is sometimes given, viz. as 30-345 inches, 28-365 inches, 29-805 inches, &c. &c. Experience having shown that even the best Observers make these mistakes, particular attention is to be paid to the manner

When a Barometer having adjustment is first to be removed from its fastenings, the following steps must first be observed, so as to form a right tip to the observer, and to quite the escape of the mercury. Then screw up half an inch of it, and take down the instrument; it will then be a quaker of an inch of it, and take down the instrument; it should then be screwed up half an inch, and take down the instrument. Before supposing that the Barometer for use, it must be ascertained whether the space above the mercury in the tube is a complete vacuum; this is the case if, on inclining the instrument, a sharp tap is produced when the mercury strikes the top of the tube. If a half tap is heard, there is air in the tube, which must be got rid of.

As Barometers are liable to be damaged by the introduction of air into their tubes, on removal from place to place, or on being roughly handled, it may be useful to Observers to know the air may be expelled. First close up the cistern by screwing the ivory peg tight, so as to prevent the escape of mercury; then screw up the ivory to about half an inch from the top of the tube; and then, by screwing slowly inverted the instrument, place the top of the cistern with the substance, such as the book, and gently tap on the cistern with the palm of the hand, so as to induce the air to ascend through the column to the cistern, whence it may easily be removed. Since there is the weight of two atmospheres pressing on any air that may be Barometer, it is so readily a tedious operation to get it wholly expelled. After repeated trials, it is seldom found, however, it is generally accomplished.

As the upper part of the glass tube, will show when the whole of the air has been expelled. On hanging up the Barometer, care must be taken to screw down the mercury in the tube before ascending the



# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Bogside, Leochel-Cushnie, County of Aberdeen, in Lat. 57° 10' 50", Long. 224° 5' 0", Distance from Sea 28 miles.

Height of Cistern of the Barometer above Mean Sea-level 35.5 feet, above Ground 3 feet.

During the MONTH of March 1875.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.				SEA.	OZONE.	GENERAL REMARKS. As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc.  Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.									
		Barometer. * No.	Attached Thermometer	Barometer. No.	Attached Thermometer	Max. No.	Min. No.	Max. in Sun's rays No.	Min. on Grass. No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	No. of hours in which it fell.	Amount in inches.	Velocity (0-10), and Species.	Amount (0-10), and Species.	Velocity (0-10), and Species.	Amount (0-10), and Species.	No. 1. inches.	No. 2. inches.	No. 3. inches.					
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°				
	1	29.200	38	29.350	40	30	27	33	25	30	29.5	29	29	2	1	6	5	14250	—	10 at	10 at	—	—	—	—	—	—	—	—	1	
	2	29.270	39	29.310	41	36	29	40	27	33	32	32	31	2	5	6	5	47080	—	10 at	10 at	2	—	—	—	—	—	—	—	2	
	3	29.310	39	29.340	40	33	31	36	26	32	31	32	31	6	5	6	5	72870	—	10 at	10 at	—	—	—	—	—	—	—	—	3	
	4	29.340	39	29.330	40	39	27	55	18	31	30	31	30	6	5	6	5	79300	—	5 at	3 at	6	—	—	—	—	—	—	—	4	
	5	29.200	38	29.060	40	34	28	36	18	31	30	32	31	7	5	7	1	88010	—	10 at	10 at	—	—	—	—	—	—	—	—	5	
	6	28.930	39	28.740	39	34	30.5	35	25	34	33	35	34	7	1.5	7	1.5	33380	18	10 at	10 at	—	—	—	—	—	—	—	—	6	
	7	28.500	39	28.700	40	45	35	55	31	38	37	44	42	7	5	7	5	59330	—	10 at	5 at	5	—	—	—	—	—	—	—	7	
	8	28.780	43	28.900	43	53	34	64	30	44	42	41	40	7	5	7	5	07200	—	—	10 at	9	—	—	—	—	—	—	—	8	
	9	28.600	43	28.600	44	40	32	45	30	34	33	36	35	2	2	2	1	82680	1.02	10 at	3 at	3	—	—	—	—	—	—	—	9	
	10	29.550	42	29.570	44	45	32	55	23	35	33	33	32.5	7	5	7	5	05270	16	—	3 at	9	—	—	—	—	—	—	—	10	
	11	29.600	42	29.550	44	41	31	50	25	35	33	34	33	7	5	7	1	36070	—	3 at	10 at	10	—	—	—	—	—	—	—	11	
	12	29.500	42	29.400	43	35	31	39	24	34	32	34	33	6	5	6	1.5	78180	—	10 at	10 at	2	—	—	—	—	—	—	—	12	
	13	29.380	42	29.400	42	35	32	37	30	33.5	32	33	32	6	5	6	5	91820	0.06	10 at	10 at	—	—	—	—	—	—	—	—	13	
	14	29.420	42	29.420	41	36	32	37	31	35	33.5	34	33	6	1	7	5	14120	—	10 at	10 at	—	—	—	—	—	—	—	—	14	
	15	29.200	40	29.340	41	42	31	48	26	33	32.5	31	30	7	5	7	5	17030	—	10 at	10 at	4	—	—	—	—	—	—	—	15	
	16	29.350	40	29.400	42	38	28	42	20	32	31	36	35	7	5	7	1	24130	—	10 at	10 at	3	—	—	—	—	—	—	—	16	
	17	29.700	40	29.800	40	35	30	35	30	32	30	31	29	2	1	2	5	66500	—	10 at	10 at	—	—	—	—	—	—	—	—	17	
	18	29.600	37	29.280	42	44	29	45	27	32	31	43	41	7	1.5	7	3	12430	—	10 at	7 at	1	—	—	—	—	—	—	—	18	
	19	29.300	40	29.280	42	43	31.5	44	27	32.5	30	36	34	2	1.5	2	1.5	89970	—	10 at	3 at	3	—	—	—	—	—	—	—	19	
	20	29.270	39	29.300	41	36	31	45	28	34	33	33	31	2	5	2	5	47600	—	10 at	10 at	2	—	—	—	—	—	—	—	20	
	21	29.300	40	29.220	45	47	31	54	30	36	35	43	41	2	5	2	5	65390	0.04	10 at	10 at	—	—	—	—	—	—	—	—	21	
	22	29.270	45	29.350	47	45	41	50	36	43	41	42	41	7	1.5	7	5	15160	—	10 at	10 at	—	—	—	—	—	—	—	—	22	
	23	29.420	46	29.460	49	49	41	61	38	43	41	43	41.5	7	5	7	5	34260	—	10 at	10 at	2	—	—	—	—	—	—	—	23	
	24	29.360	46	29.200	49	50	33	65	24	42	39	42	40	7	5	7	5	39480	0.02	3 at	2 at	7	—	—	—	—	—	—	—	24	
	25	29.150	48	29.000	49	50	37	51	28	46	42	46	42	7	1.5	7	3	24330	0.06	10 at	10 at	3	—	—	—	—	—	—	—	25	
	26	29.020	46	28.950	48	50	38	57	33	45	41	38	36	7	1	2	2	01810	—	5 at	—	8	—	—	—	—	—	—	—	26	
	27	28.870	44	28.970	46	43	35	50	29	40	36	35	33	7	2	7	3	01160	0.06	—	10 at	7	—	—	—	—	—	—	—	27	
	28	29.250	42	29.410	45	45	31	50	30	36	34	40	38	7	3	7	1.5	01980	0.03	10 at	10 at	5	—	—	—	—	—	—	—	28	
	29	29.440	45	29.470	49	48	38	55	33	41.5	39	42	40	7	5	7	5	36590	—	10 at	7 at	4	—	—	—	—	—	—	—	29	
	30	29.550	47	29.600	49	52	42	57	36	45	42	45	42	7	1.5	7	1	90230	—	10 at	6 at	8	—	—	—	—	—	—	—	30	
	31	29.660	48	29.680	50	50	40	56	33	45	42	46	42	7	1	7	5	22840	—	3 at	10 at	8	—	—	—	—	—	—	—	31	
	Sums.	139	15	148	115	12	101	13	12	131	91	11	81	300	315	—	—	163	—	—	—	—	—	—	—	—	—	—	—		
	Means.	29.261	42.0	29.269	43.7	42.0	32.9	47.8	28.0	36.7	34.9	37.2	35.6	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Total Corrections for Instrumental Errors.	-100		-100																											
	Corrected Means.																														
	No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

NOTATION USED IN GENERAL REMARKS.									
a.	denotes aurora.	m.	denotes meteor.						
ci.	" "	ms.	" "						
ci-cu.	" cirro-cumulus.	n.	" nimbus.						
ci-s.	" cirro-stratus.	r.	" rain.						
cu.	" cumulus.	h. r.	" heavy rain.						
cu-s.	" cumulo-stratus.	c. h. r.	" continued heavy rain.						
d.	" dew.	s.	" stratus.						
f.	" fog.	sc.	" scud.						
fr.	" frost.	s.	" sleet.						
h-fr.	" hoar-frost.	s.	" snow.						
hl.	" hail.	sgs.	" squalls.						
l.	" lightning.	t.	" thunder.						
li. cl.	" light clouds.	t. s.	" thunder storm.						
li. sh.	" light showers.	w.	" wind.						
lu. co.	" lunar corona.	g.	" gale of wind.						
lu. la.	" lunar halo.								

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

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction for Temp. (Col. 2), = 29.126  
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction for Temp. (Col. 4), = 29.129  
 Mean at Station, corrected, and at 32°, = 29.128  
 Correction for height, feet above Mean Sea-level, = 978  
 Mean, reduced to 32°, and Sea-level, = 30.106  
 Highest Reading, corrected for Index error, on the 17th, = 29.800  
 Lowest Do. Do., on the 9th, = 28.400  
 Difference, or Monthly Range, = 1.400

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 8th, = 53.0  
 Lowest in Month, corrected for Index errors, on the 1st, = 27.0  
 Difference, or Monthly Range, = 26.0  
 "Corrected Mean" of all the Highest, (Col. 5), = 42.0  
 "Corrected Mean" of all the Lowest, (Col. 6), = 32.9  
 Difference, or Mean Daily Range, = 9.1  
 \*\* Calculated Mean Temperature of Month, = 37.4  
 S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 24th, = 65.0  
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 47.8  
 Lowest at Night, Black Bulb, (corrected for Index errors), on the 4th, = 18.0  
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 28.0  
 Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 37.0  
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 35.3  
 # Computed Temperature of Dew-Point, = 32.9  
 # Do. Elastic Force of Vapour, = 1.87  
 # Do. Weight of Vapour in a Cubic Foot of Air, = 85  
 # Relative Humidity, (Saturation = 100), = 85  
 RAIN fell on 9 Days; Amount in Inches, = 1.63

WIND.		SUMMARY.									
Direction.		N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
A.M.		7	1	5	2	4	5	4	3		
P.M.		5	6	2	4	3	8	3			
Mean.		6	1	5	2	4	4	6	3		100

Evaporation 1.54 inches.

Observations made and Return verified by William Bruce  
Bogside, Leochel-Cushnie.

(Signed) William Bruce  
 The weather during the month has been changing, but on the whole favourable for out door work which is well advanced, sowing is well through. Frost very scarce, turnips, plentiful. Severe cold and influenza very prevalent, and has cut off a number of old people. Cattle healthy.



Yosside  
Mar. 1895-

BOOK POST.

Mr. ALEXANDER BUCHAN,

*Secretary of the Meteorological Society of Scotland,*

EDINBURGH.

Turnips, Kraits, etc., whether plentiful, or in perfection; whether any information you may be able to collect relative to the crops of grain, Hay, Potatoes, etc. Whether Epidemic disease prevails among cattle; and the Agricultural condition of the district generally.

SHRUBS, ETC.	FRUITS.	MICRATORY BIRDS.
Barberry, . . . . .	Apple, . . . . .	Cuckoo, . . . . .
Bourtree or Elder, . . . . .	Black Currant, . . . . .	Cutlew, . . . . .
Broom, . . . . .	Cherry, . . . . .	House-Swallow, . . . . .
Hazel, . . . . .	Gean, . . . . .	Lapwing, . . . . .
Hawthorn, . . . . .	Gooseberry, . . . . .	Plover, . . . . .
Holly, . . . . .	Peach, . . . . .	Sand-Martin, . . . . .
Laburnum, . . . . .	Pear, . . . . .	Starling, . . . . .
Lilac, . . . . .	Plum, . . . . .	Swan, . . . . .
Mezerion, . . . . .	Strawberry, . . . . .	Rail or Corn Crake, . . . . .
Mountain Ash or Rowan, . . . . .		
Red Flowering Currant, . . . . .		
Rhododendron Ponticum, . . . . .		
Whin, . . . . .		
First in Blossom.	First in Blossom.	First in Blossom.
20	19	
Arrival.	Departure.	Departure.

[illegible]

upon, the inclination of the column. The Observer cannot be too careful to register the position of the sun, and to note the position of the clouds, in order to be able to make a correct inference.

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

Observations of the Clouds are made at 9 a.m. and at sunset, as illustrating the condition and currents of the air, and the lower regions of the atmosphere. The entries in the Clouds are to be made in the following manner:—Thus, in the column Velocity and Direction, 6, S. W. will indicate that the upper strata of Clouds travel with 2, W. extreme velocity from S.W., and those in the lower regions from W., with one-third the speed of the former. Again, in the second Cloud column, an entry of  $\frac{2}{2}$ , east, will indicate that the higher regions are covered to the amount of 4-tenths with stratus Clouds; and that the sky is further obscured to the extent of 2-tenths by lower Clouds of the cumulo-stratus kind.

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

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

As the germination and growth of crops and plants generally, depend greatly on the temperature of the soil,—its amount and consistency,—the Council recommend that observations on this interesting department be made at 9 a.m. by Thermometers permanently fixed in the soil, their bulbs being sunk to depths of 3, 12 and 22 inches, and the stems above ground protected from the sun's rays, and fitted with sloping tin collars, prevent rain water being conveyed to the bulbs by the stems or wooden frames.

A knowledge of the Temperature of the Sea is not only in itself, but in its relations to that of our island, a most important branch of Meteorology. The Council therefore recommend that the Temperature of the Sea be carefully taken by a properly constructed apparatus, from boats, or, where it is impracticable, from the ends of piers and rocks round the coast, where it is not influenced by that of river water, and as little influenced as possible by currents sweeping along the coast, and thus acquiring the temperature of the land, either greatly heated by the sun, or cooled by the winds.



# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Bogside, Lochel-bushie, County of Aberdeen, in Lat. 57°10' 50", Long. 2°45' 00", Distance from Sea 28 miles.  
 Height of Cistern of the Barometer above Mean Sea-level 885 feet, above Ground 3 feet. During the MONTH of April 1875.  
 The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.	CLOUDS.				THERMOMETERS under Ground.				SEA.	OZONE.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Deposition or Elevation of Barometer, Prevalent Diseases, etc.  Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.	
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.			9 A.M.		P.M.		9 h. A.M.								
		Barometer.	Atta- ched Ther- mometer	Barometer.	Atta- ched Ther- mometer	Max.	Min.	Max.	Min.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.		Velocity (0—6), and Direction.	Amount (0—10), and Species.	Velocity (0—6), and Direction.	Amount (0—10), and Species.	No.	3 inches.	12 inches.	No.					22 inches.
		* No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.		No.	No.	No.	No.	No.	No.	No.	No.					No.
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°				
	1	29.640	48	29.600	50	51	38	62	35	44	40	42	40	N	1.5	N	1.5	58330	—	7st	10st	6							1		
	2	29.400	48	29.100	50	53	38	58	31	46	46	45	42	N	5	N	2	05510	.06	10st	10st	—							2		
	3	28.900	50	28.400	52	51	41	58	39	44	40	45	42	N	1.5	N	2	52170	.20	10st	10st	2							3		
	4	28.520	49	28.630	50	45	37	51	36	38	37	38	37	N	1.5	N	6	50090	.20	10st	10st	—							4		
	5	28.380	47	28.100	47	40	33	44	32	35	34.5	38	37	E	1	S	—	511460	.35	10st	10st	—							5		
	6	28.430	43	28.420	44	44	35	46	31	41	38	38	36	S	5	N	—	547010	—	10st	10st	4							6		
	7	28.500	45	28.800	46	42	33	44	27	40	39	40	39	N	1.5	E	1	72560	.03	10st	10st	—							7		
	8	29.100	46	29.340	48	48	38	57	36	46	45	39.5	39	N	1.5	N	1	09070	—	10st	10st	2							8		
	9	29.450	45	29.600	48	45	36	53	34	41	39	38	36	N	1.5	N	2	60510	—	10st	10st	3							9		
	10	29.630	46	29.600	49	60	36	59	30	42	40	42	42	N	1	N	1.5	70780	—	10st	10st	5							10		
	11	29.570	48	29.540	50	53	39	69	36	45	42	40	38	N	5	N	1	96180	—	10st	2st	8							11		
	12	29.530	49	29.500	50	53	33	64	27	41	40	42	39	N	5	N	5	23820	—	10st	—	6							12		
	13	29.500	48	29.440	53	56	33	94	29	40	38	47	45	N	5	N	5	32610	—	—	8st	9							13		
	14	29.470	50	29.500	52	51	42	58	35	44	42	45	43	N	5	N	5	48540	—	10st	10st	—							14		
	15	29.520	49	29.460	53	58	40	81	33	50	45	45	43	S	1	C	—	52020	—	—	—	12							15		
	16	29.470	50	29.400	55	63	37	71	33	51	48	46	43	N	5	N	5	58690	—	—	6st	12							16		
	17	29.450	56	29.300	53	66	37	75	30	54	49	50	45	S	5	N	5	67360	—	—	—	13							17		
	18	29.260	54	29.360	57	66	40	100	30	56	46	51	45	N	5	N	5	81170	—	2st	10st	12							18		
	19	29.300	55	29.300	61	72	41	99	32	62	53	50	45	N	5	N	5	93600	—	—	—	13							19		
	20	29.280	56	29.200	61	70	40	100	31	58	49	50	46	E	5	N	5	15780	.06	—	—	13							20		
	21	29.200	45	29.240	51	59	35	59	34	37	36	35	32	N	1.5	N	1.5	61740	—	10st	10st	—							21		
	22	29.140	48	29.050	50	45	32	50	28	41	36	38	36	N	2	N	1	11670	—	5st	10st	2							22		
	23	29.140	47	29.200	47	42	33	59	31	36	32	39	36	N	1	N	5	28490	—	10st	10st	3							23		
	24	29.240	47	29.330	51	50	31	56	29	45	39	45	42	N	1.5	N	5	49860	—	10st	10st	2							24		
	25	29.400	50	29.400	53	50	36	60	33	43	39	43	40	N	5	N	5	54560	—	10st	10st	—							25		
	26	29.280	57	29.150	59	56	37	86	30	51	44	46	42	N	5	C	—	65580	.13	—	10st	8							26		
	27	29.040	54	29.070	56	56	42	91	39	51	49	45	42	N	5	N	1	05130	.09	6st	2st	6							27		
	28	29.180	53	29.100	56	53	40	60	34	49	46	50	47	N	5	N	1	40080	.12	10st	10st	—							28		
	29	29.100	55	29.200	59	60	48	91	40	55	50	48	45	N	5	N	—	507010	—	3st	—	13							29		
	30	29.250	55	29.240	55	57	41	99	37	50	47	40	40	N	5	C	—	18990	—	8st	34st	10							30		
	31																											31			
Sums.		6270	293	5590	66	105	222	2054	82	176	665	1005	24	265	240			124													
Means.		29.209	49.8	29.183	52.2	53.5	37.4	66.5	36.7	45.9	42.2	43.3	40.8	0.9	.8																
† Total Corrections for Instrumental Errors.		-100		-100																											
† Corrections for Diurnal Range.																															
† Corrected Means.																															
No. of		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		

NOTATION USED IN GENERAL REMARKS.					
a.	denotes aurora.	m.	denotes meteor.		
cl.	" cirrus.	ms.	" micrometeor.		
cl.-cu.	" cirro-cumulus.	b.	" nimbus.		
cl.-s.	" cirro-stratus.	r.	" rain.		
cu.	" cumulus.	h. r.	" heavy rain.		
cu.-s.	" cumulo-stratus.	c. h. r.	" continued heavy rain.		
d.	" dew.	s.	" stratus.		
f.	" fog.	sc.	" scud.		
fr.	" frost.	s.	" sleet.		
h.-fr.	" hoar-frost.	sq.	" squall.		
h.	" haze.	soln.	" solar halo.		
h. d.	" heavy dew.	sq.	" squall.		
hl.	" hail.	t.	" thunder.		
l.	" lightning.	t. s.	" thunder storm.		
li. cl.	" light clouds.	w.	" wind.		
li. sh.	" light showers.		" gale of wind.		
lu. co.	" lunar corona.				
lu. ha.	" lunar halo.				

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

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

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

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† = 29.054  
 for Temp. (Col. 2), = 29.009... .055  
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 29.021  
 for Temp. (Col. 4), = 29.083... .062  
 Mean at Station, corrected, and at 32°, = 29.038  
 Correction for height, feet above Mean Sea-level, = 962  
 Mean, reduced to 32°, and Sea-level, = 30.000  
 Highest Reading, corrected for Index error, on the 1 th, = 29.640  
 Lowest Do. Do., on the 5 th, = 28.100  
 Difference, or Monthly Range, = 1.540

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 19 th, = 72.0  
 Lowest in Month, corrected for Index errors, on the 24 th, = 31.0  
 Difference, or Monthly Range, = 41.0  
 "Corrected Mean" of all the Highest, (Col. 5), = 63.5  
 "Corrected Mean" of all the Lowest, (Col. 6), = 37.4  
 Difference, or Mean Daily Range, = 26.1  
 \*\* Calculated Mean Temperature of Month, = 45.4  
 S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 18 th, = 80.00  
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 68.5  
 Lowest at Night, Black Bulb, (corrected for Index errors), on the 7 th, = 27.0  
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 36.7  
 Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 44.6  
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 41.5  
 † Computed Temperature of Dew-Point, = 37.9  
 † Do. Elastic Force of Vapour, = .228  
 † Do. Weight of Vapour in a Cubic Foot of Air, = 77  
 † Relative Humidity, (Saturation = 100), = 77  
 RAIN fell on 9 Days; Amount in Inches, = 1.24

WIND. SUMMARY.												Mean Force.		Mean Velocity in miles per day.	
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity.				
A.M.	11		2	2	3	6	5	1							
P.M.	13	1	1		1	3	6	2	3						
Mean.	12	1	1	2	5	5	2	1		85					

\* Each instrument tested at the Office in Edinburgh bears the stamp "S.M.S.," and a number to be entered in the Heading; or the Number and Initials of the Maker may be here given.  
 † Embracing corrections for both capillarity and index errors.  
 ‡ The Diurnal Range for Scotland is as yet unknown.  
 § Practically, though not absolutely a minus correction.  
 ¶ These "Hygrometric Deductions" are calculated from Glatisher's Hygrometrical Tables, Second Edition only.  
 †† While the Diurnal Range is unknown, the Arithmetical Mean of Cols. 5 and 6 will be entered as the "Calculated Mean Temperature."  
 Any Observations not taken under the conditions specified in the Directions on the other side, or noted at the Top of each column, must be marked as such by the observer, in each Schedule. See over.

Evaporation, 2.90 inches

Observations made and Return verified by William Bruce  
Bogside, Lochel-bushie

(Signed) William Bruce  
 A fine dry month, never was the seed put into the ground in better order than this spring. Straw very scarce, in several cases the cattle are out on the grass. People healthy, except severe colds. Typhus fever in one family on case has proved fatal, and in another one family. Cattle healthy.







# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Bogside, Loch-Cushnie, County of Aberdeen, in Lat. 57°10'50", Long. 2°45'00" W, Distance from Sea 28 miles.  
Height of Cistern of the Barometer above Mean Sea-level 885 feet, above Ground 3 feet. During the MONTH of May 1875.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No.				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Deposition or Elevation of Barometer, Prevalent Diseases, etc.  Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.				
		9 h. A.M.		9 h. P.M.		Protected in Shade at least above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.												
		Barometer.	Attach- ed Ther- mometer	Barometer.	Attach- ed Ther- mometer	Max. No.	Min. No.	Max. in Sun's rays	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Readings of the H. Cup Anemometer. No.	No. of hours in which it fell.	Amount in inches.	Velocity (0-10), and Direction.	Amount, (0-10), and Species.	Velocity (0-10), and Direction.	Amount, (0-10), and Species.	No. 3 inches.	12 inches.					No. 22 inches.			
		* No.	inches.	* No.	inches.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.					No.	No.	No.	No.
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°					°	°	°	°
	1	29.200	52	29.170	51	45	36	58	33	42	41	39	38	SE	1	SE	1	—	—	10 at	10 at	—	—	—	—	—	—	—	—	1				
	2	29.100	50	29.110	56	57	37	91	36	48	45	46	43	E	—	S	—	—	—	8 at	5 at	5	—	—	—	—	—	—	—	2				
	3	29.080	56	29.050	58	62	36	80	32	55	51	52	49	S	1.5	S	—	—	—	5 at	10 at	4	—	—	—	—	—	—	—	3				
	4	29.080	56	29.180	58	64	41	98	39	55	50	49	46	SW	5	SW	—	—	—	6 at	5 at	7	—	—	—	—	—	—	—	4				
	5	29.210	55	29.140	56	59	44	80	38	49	46	44	43	E	5	W	—	—	—	10 at	4 at	2	—	—	—	—	—	—	—	5				
	6	28.970	57	28.800	56	61	38	84	33	50	48	46	45	E	—	W	—	—	—	10 at	10 at	3	—	—	—	—	—	—	—	6				
	7	28.740	55	28.800	57	60	38	97	34	49	48	46	46	SE	5	S	—	—	—	10 at	10 at	5	—	—	—	—	—	—	—	7				
	8	28.880	54	28.740	56	58	38	91	36	52	49	49	48	S	5	S	—	—	—	10 at	10 at	3	—	—	—	—	—	—	—	8				
	9	28.730	55	28.820	56	58	44	71	39	52	49	50	47	S	1.5	SW	—	—	—	8 at	4 at	6	—	—	—	—	—	—	—	9				
	10	29.100	54	29.330	54	56	42	101	39	51	45	46	43	W	5	W	—	—	—	10 at	3 at	4	—	—	—	—	—	—	—	10				
	11	29.200	53	29.180	59	63	40	80	33	52	47	55	52	W	5	W	2	—	—	10 at	10 at	3	—	—	—	—	—	—	—	11				
	12	29.180	55	29.260	60	66	52	102	47	60	55	54	50	W	1	W	1.5	—	—	10 at	10 at	5	—	—	—	—	—	—	—	12				
	13	29.320	59	29.400	61	64	48	109	41	59	53.5	54	52	W	1.5	E	—	—	—	5 at	10 at	7	—	—	—	—	—	—	—	13				
	14	29.360	60	29.100	61	69	43	90	35	62	56	50	47	S	5	W	—	—	—	3 at	3 at	8	—	—	—	—	—	—	—	14				
	15	29.160	58	29.300	56	69	43	90	40	51	44	44	41	W	2	W	—	—	—	3 at	2 at	10	—	—	—	—	—	—	—	15				
	16	29.400	56	29.350	58	56	39	92	32	50	44	48	46	W	1.5	W	—	—	—	5 at	10 at	8	—	—	—	—	—	—	—	16				
	17	29.200	53	29.000	57	59	39	91	30	52	46	50	46	W	5	W	—	—	—	5 at	10 at	7	—	—	—	—	—	—	—	17				
	18	28.720	55	28.530	57	54	43	72	40	47	46	44	43	W	5	W	—	—	—	10 at	10 at	—	—	—	—	—	—	—	—	18				
	19	28.560	55	28.620	55	53	38	93	33	45	42	43	40	W	5	SW	1.5	—	—	6 at	10 at	5	—	—	—	—	—	—	—	19				
	20	28.630	52	28.610	54	54	38	84	34	47	42.5	50	47	SW	2	S	—	—	—	10 at	10 at	4	—	—	—	—	—	—	—	20				
	21	28.740	53	28.500	55	61	40	96	30	54	49	50	49	S	1.5	S	1.5	—	—	10 at	10 at	3	—	—	—	—	—	—	—	21				
	22	28.670	55	28.760	55	56	42	75	34	49	45	44	42	S	1.5	S	2	—	—	5 at	10 at	7	—	—	—	—	—	—	—	22				
	23	28.900	53	29.000	55	57	41	90	31	48	43.5	44	41	S	1.5	W	1	—	—	7 at	—	10	—	—	—	—	—	—	—	23				
	24	29.240	52	29.120	55	60	39	90	30	45	44	48	45	S	5	W	2	—	—	10 at	—	11	—	—	—	—	—	—	—	24				
	25	29.260	53	29.360	55	55	45	80	36	53	46	45	42	W	2	W	1.5	—	—	3 at	10 at	8	—	—	—	—	—	—	—	25				
	26	29.400	53	29.500	55	53	42	74	36	47	43	46	43	W	2	W	1.5	—	—	10 at	5 at	5	—	—	—	—	—	—	—	26				
	27	29.400	53	29.130	54	53	42	56	35	48	46	50	48	W	5	W	—	—	—	10 at	10 at	—	—	—	—	—	—	—	—	27				
	28	29.140	53	29.190	52	52	42	62	39	44	43	42	41	W	1.5	W	2	—	—	10 at	10 at	—	—	—	—	—	—	—	—	28				
	29	29.200	52	29.120	53	52	38	65	35	48	45	48	45	E	5	SW	—	—	—	10 at	10 at	—	—	—	—	—	—	—	—	29				
	30	29.080	53	29.100	56	62	44	81	40	49	46	53	51	W	5	W	—	—	—	10 at	8 at	3	—	—	—	—	—	—	—	30				
	31	29.170	55	29.300	60	66	42	97	32	53	49	52	48	W	5	W	—	—	—	3 at	10 at	10	—	—	—	—	—	—	—	31				
Sumis.		12 11 20 20	12 15 59	10 8 191	15 14 264	14 34	9 140	12 172	14 167	13 21	13 167	11 295	12 265	17 176																				
Means.		29.065	54.4	29.051	56.2	58.5	41.1	84.5	35.5	50.0	46.7	47.8	45.4	1																				
† Total Corrections for Instrumental Errors.		-100		-100																														
† Corrections for Diurnal Range.																																		
"Corrected Means."																																		
No. of Column		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† = 28.898  
for Temp. (Col. 2), = 28.965 - 0.067  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 28.879  
for Temp. (Col. 4), = 28.951 - 0.072  
Mean at Station, corrected, and at 32°, = 28.889  
Correction for height, feet above Mean Sea-level, = 953  
Mean, reduced to 32°, and Sea-level, = 29.842  
Highest Reading, corrected for Index error, on the 26 th., = 29.500  
Lowest Do. Do., on the 18 th., = 28.550  
Difference, or Monthly Range, = 0.950

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 14 th., = 69.0  
Lowest in Month, corrected for Index errors, on the 13 th., = 36.0  
Difference, or Monthly Range, = 33.0  
"Corrected Mean" of all the Highest, (Col. 5), = 58.5  
"Corrected Mean" of all the Lowest, (Col. 6), = 41.1  
Difference, or Mean Daily Range, = 17.4  
\*\* Calculated Mean Temperature of Month, = 49.8  
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 13 th., = 109.0  
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 84.5  
Lowest at Night, Black Bulb, (corrected for Index errors), on the 17 th., = 30.0  
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 35.5  
Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 49.2  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 46.0  
†† Computed Temperature of Dew-Point, = 42.6  
†† Do. Elastic Force of Vapour, = 2.74  
†† Do. Weight of Vapour in a Cubic Foot of Air, = 78  
†† Relative Humidity, (Saturation = 100), = 78  
RAIN fell on 11 Days; Amount in Inches, = 1.76

WIND.		SUMMARY.									
Direction.		N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
A.M.	4				2	8	2	13	2		
P.M.	3				1	7	3	15	1		
Mean.	3	0	0	2	7	3	14	1	1		

Evaporation 3.69 inches

Observations made and Return verified by William Bruce  
Bogside, Loch-Cushnie

(Signed) William Bruce,  
The weather during the month has been very dry, so much so that vegetation is being much retarded. Turnip sowing is well advanced more than for many years past, a good few having finished. Typhus fever in our family, one case of which has proved fatal. Measles in one family, seven colds very prevalent, excepting these people healthy. Cattle in general healthy and thriving.



Boydide  
May 1895

 $T_0$ 

Mr ALEXANDER BUCHAN,

*Secretary of the Meteorological Society of Scotland,*

EDINBURGH.

BOOK POST.

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

SHRUBS, ETC.		FRUITS.		MIGRATORY BIRDS.	
Barberry, . . . . .	First in Blossom.	Apple, . . . . .	First in Blossom.	Cuckoo, . . . . .	First in Blossom.
Bonitree or Elder, . . . . .		Black Currant, . . . . .		Cutlem, . . . . .	
Broom, . . . . .		Cherry, . . . . .		House-Swallow, . . . . .	
Hazel, . . . . .		Gean, . . . . .		Lapwing, . . . . .	
Hawthorn, . . . . .	30	Gooseberry, . . . . .	1	Plover, . . . . .	
Holly, . . . . .		Peach, . . . . .		Sand-Martin, . . . . .	
Laburnum, . . . . .	28	Pear, . . . . .		Starling, . . . . .	
Lilac, . . . . .	19	Plum, . . . . .		Swan, . . . . .	
Mezereon, . . . . .	31	Strawberry, . . . . .	10	Trail or Corn Crake, . . . . .	8
Mountain Ash or Rowan, . . . . .					
Red Flowering Currant, . . . . .					
Rhododendron Ponticum, . . . . .	24				
Wbth, . . . . .					

[illegible]

OBSERVATIONS IN CONNECTION WITH THE PERIODICAL RETURN OF THE SEASONS.

Upon, the indications of the Rain-Gauge. For wind, rain, and snow, as indicated in every column, the Observer cannot be too careful to register observations only; and nothing that partakes of the nature of detection or inference.

Convenient abbreviations for the nomenclature of Clouds will be found on the other side. The amount of Cloud ought to be estimated on the greater or less obscuration of the sky overhead (*i.e.*, what the horizon is visible); and the strata of Clouds that appear to judge of their amount, we ought not to take thus, being unable to judge of their amount, we ought not to take them into account. In the Clouds' column, though their appearance may be noted, they may be noted among the Remarks. The amount of Cloudiness must be noted on a scale of 0 to 10; thus, when the sky overhead is free from Clouds it is entered 0, when half covered by Clouds, 5, wholly covered, 10, and so on.

Observations of the Clouds are made at 9 A.M. and at sunset, as illustrating the condition and currents of the upper and lower regions of the atmosphere. The entries in the schedule are to be made in the following manner:—Thus, in the column Velocity and Direction, S, S. W., will indicate that the upper strata of Clouds travel with extreme velocity from SW., and those in the lower regions from W. W., with one-third the speed of the former. Again, in the Cloud column, an entry of  $\frac{2}{2}$ , east, will indicate that the higher regions are covered to the extent of 4-tenths with stratus Clouds; and that the sky is further obscured to the extent of 2-tenths by lower Clouds of the cirriferous kind.

As particularly in the development of a more exact nomenclature of Clouds as well as throw light on the electrical, and other of the more obscure phenomena of Meteorology.

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

As the germination and growth of crops and plants generally, depend greatly on the temperature of the soil—it is important to ascertain the amount and constancy—the Council recommend Observations in this interesting department be made daily at 9 A.M. Thermometers permanently fixed in the soil, their bulbs being sunk to depths of 3, 12, and 22 inches, and the stems above the ground protected from the sun's rays, fitted with pig iron collars, to prevent rain water being conveyed to the bulbs by the stems or wooden frames.

A knowledge of the Temperature of the Sea is not only in itself important, but in its relation to that of our island a most important branch of Meteorology. The Council therefore carefully tend to register contrived apparatus, from boats, or coast where it is impracticable, from the ends of piers and rocks round the coast, if this is not influenced by that of river water, and as little indicated as possible by currents sweeping along the coast, and thus combining the temperature of the land, either greatly heated by the



# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Bogside, Leuchelish, County of Aberdeen, in Lat. 57°10'50", Long. 2°45'00"W, Distance from Sea 28 miles.

Height of Cistern of the Barometer above Mean Sea-level 88.5 feet, above Ground 3 feet.

During the MONTH of June 1875.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc.  Mention the hour at which Storms, including Thunder and Lightning, began and ended.		Days of Month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		Barometer.	Attach- ed Ther- mometer	Barometer.	Attach- ed Ther- mometer	Max.	Min.	Max. in Sunrays	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Velocity (0—6), and Direction.	Amount (0—10), and Species.	Velocity (0—6), and Direction.	Amount (0—10), and Species.	No.	12 inches.	No.	22 inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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## NOTATION USED IN GENERAL REMARKS.

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

## TABLE FOR ESTIMATING FORCE OF WIND.

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

BAROMETER, “corrected Mean” at 9 A.M., minus the Correction†† = 28.819  
for Temp. (Col. 2), = 28.893 - 0.74 = 28.819  
“Corrected Mean” of Barometer at 9 P.M., minus the Correction†† = 28.821  
for Temp. (Col. 4), = 28.899 - 0.78 = 28.821  
Mean at Station, corrected, and at 32°, = 28.820  
Correction for height, feet above Mean Sea-level, = 94.8  
Mean, reduced to 32°, and Sea-level, = 29.768  
Highest Reading, corrected for Index error, on the 12th, = 29.560  
Lowest Do. Do., on the 15th, = 28.300  
Difference, or Monthly Range, = 1.260

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 26th, = 72.0  
Lowest in Month, corrected for Index errors, on the 14th, = 36.0  
Difference, or Monthly Range, = 36.0  
“Corrected Mean” of all the Highest, (Col. 5), = 61.1  
“Corrected Mean” of all the Lowest, (Col. 6), = 43.4  
Difference, or Mean Daily Range, = 17.7  
“Calculated Mean Temperature” of Month, = 52.2  
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 3th, = 111.0  
“Corrected Mean,” (Col. 7), of Black Bulb, Max. in Sun, = 86.3  
Lowest at Night, Black Bulb, (corrected for Index errors), on the 27th, = 28.0  
“Corrected Mean,” (Col. 8), of Black Bulb, Min. on grass, = 36.2  
Difference of above Means or Range (“exposed”), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 53.1  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 49.8  
† Computed Temperature of Dew-Point, = 46.5  
† Do. Elastic Force of Vapour, = 316  
† Do. Weight of Vapour in a Cubic Foot of Air, = 78  
† Relative Humidity, (Saturation = 100), = 78  
RAIN fell on 19 Days; Amount in Inches, = 2.87

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.
A.M.						2	10	10	7	1
P.M.						1	8	6	14	1
Mean.		0	0	0	2	9	8	10	1	0

Evaporation 2.79 inches.  
Observations made and Return verified by William Bruce  
Bogside, Leuchelish

(Signed) William Bruce  
The weather during the month has been excellent, and crops of all kinds have improved very much, and have now an excellent appearance. Hay crops much improved but will be under the average. People healthy, no disease in the district. Cattle thriving.







# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Bogside, Leuch-Cushnie, County of Aberdeen, in Lat. 57° 10' 50", Long. 2° 45' 0", Distance from Sea 27 miles.

Height of Cistern of the Barometer above Mean Sea-level 885 feet, above Ground 3 feet.

During the MONTH of July 1875

The Hours of Observation are of Greenwich Time.

ELECTRICITY	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. _____				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc.  Mention the hour at which Storms, including Thunder and Lightning, began and ended.		Days of Month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		Barometer.	Attached Ther- mometer	Barometer.	Attached Ther- mometer	Max. No.	Min. No.	Max. in Sun's rays	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Velocity (0-6), and Direction.	Amount (0-10), and Species.	Velocity (0-6), and Direction.	Amount (0-10), and Species.	No. _____ 3 inches.	No. _____ 12 inches.	No. _____ 23 inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		* No. _____	_____	No. _____	_____	No. _____	No. _____	No. _____	No. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____						_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____</

## NOTATION USED IN GENERAL REMARKS.

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

## TABLE FOR ESTIMATING FORCE OF WIND.

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

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† for Temp. (Col. 2), = 29.029 ..... -0.78... = 29.051  
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction†† for Temp. (Col. 4), = 29.038 ..... -0.85... = 29.044  
 Mean at Station, corrected, and at 32°, = 29.044  
 Correction for height, feet above Mean Sea-level, = 941  
 Mean, reduced to 32°, and Sea-level, = 29.985  
 Highest Reading, corrected for Index error, on the 5th, = 29.580  
 Lowest Do. Do., on the 10th, = 28.650  
 Difference, or Monthly Range, = 0.930

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 21th, = 75.0  
 Lowest in Month, corrected for Index errors, on the 13th, = 38.0  
 Difference, or Monthly Range, = 37.0  
 "Corrected Mean" of all the Highest, (Col. 5), = 63.3  
 "Corrected Mean" of all the Lowest, (Col. 6), = 46.7  
 Difference, or Mean Daily Range, = 16.6  
 \*\* Calculated Mean Temperature of Month, = 55.0  
 S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 7th, = 115.0  
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 82.7  
 Lowest at Night, Black Bulb, (corrected for Index errors), on the 10th, = 28.0  
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 42.2  
 Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 55.2  
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 52.6  
 ‡ Computed Temperature of Dew-Point, = 50.1  
 ‡ Do. Elastic Force of Vapour, = .362  
 ‡ Do. Weight of Vapour in a Cubic Foot of Air, = —  
 ‡ Relative Humidity, (Saturation = 100), = 84  
 RAIN fell on 15 Days; Amount in Inches, = .447

WIND. SUMMARY.											
Direction	N	NE	E	SE	S	SW	W	NW	Calm or 0-1	Mean	Mean Velocity
A.M.	2	6	2	4	5	7	5	—	—	—	—
P.M.	3	7	—	4	5	7	4	1	—	—	—
Mean.	3	6	1	4	5	7	4	1	—	—	—

Evaporation 3.45 inches.

Observations made and Return verified by William Bruce  
Bogside, Leuch-Cushnie.

(Signed) William Bruce  
 The weather has been somewhat changeable, very warm & dry at times, and sometimes cold and wet. The crops has improved much since the rain came, oats and bar are a splendid crop, turnips & potatoes are good, hay improved greatly and is an average crop. Several fields of bar will soon be ready, and oats are beginning to turn yellow. No disease in the district. People healthy, cattle thriving.







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Bossie, Lochdubhair, County of Aberdeen, in Lat. 57° 10' 30", Long. 2° 45' 0" W, Distance from Sea 28 miles.Height of Cistern of the Barometer above Mean Sea-level 485 feet, above Ground 3 feet.During the MONTH of August 1875.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc.  Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		No. of hours in which it fell.	Amount in inches.	9 A.M.		P.M.		SUNSHINE  Hours.	9 h. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		Barometer. * No. —	Attach- ed Ther- mometer	Barometer. No. —	Attach- ed Ther- mometer	Max. No. —	Min. No. —	Max. in Sun's rays	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.			Velocity (0—10), and Direction.	Amount (0—10), and Species.	Velocity (0—10), and Direction.	Amount (0—10), and Species.		No. — 3 inches.	12 inches.					No. — 22 inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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BAROMETER, “corrected Mean” at 9 A.M., minus the Correction†† = 29.003  
for Temp. (Col. 2), = 29.004 — 0.001 = 29.003  
“Corrected Mean” of Barometer at 9 P.M., minus the Correction†† = 29.003  
for Temp. (Col. 4), = 29.003 — 0.000 = 29.003  
Mean at Station, corrected, and at 32°, = 29.003  
Correction for height, feet above Mean Sea-level, = 941  
Mean, reduced to 32°, and Sea-level, = 29.944  
Highest Reading, corrected for Index error, on the 7 th, = 29.500  
Lowest Do. Do. on the 25 th, = 28.780  
Difference, or Monthly Range, = 0.720

\* Each instrument tested at the Office in Edinburgh bears the stamp “S.M.S.” and a number to be entered in the Heading, or the Number and Initials of the Maker may be here given.  
† Embedding corrections for both capillarity and Index Errors.  
‡ The Diurnal Range for Scotland is as yet unknown.  
†† Practically, though not absolutely, a minus correction.  
‡‡ These “Hygrometrical Deductions” are calculated from Glaisher's Hygrometrical Tables, Second Edition only.  
While the Diurnal Range is unknown, the Arithmetical Mean of Cols. 5 and 6 will be entered as the “Calculated Mean Temperature.”  
Any Observations not taken under the conditions specified in the Directions on the other side, or noted at the Top of each column, must be marked as such by the observer, in each Schedule. See over.

Evaporation 2.33 inches

Observations made and  
Return verified byWilliam Bruce  
Bossie, Lochdubhair, Co. Aberdeen

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 17 th, = 71.0  
Lowest in Month, corrected for Index errors, on the 20 th, = 41.0  
Difference, or Monthly Range, = 30.0  
“Corrected Mean” of all the Highest, (Col. 5), = 61.7  
“Corrected Mean” of all the Lowest, (Col. 6), = 48.1  
Difference, or Mean Daily Range, = 13.6  
\*\* Calculated Mean Temperature of Month, = 54.9

S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 17 th, = 121.0  
“Corrected Mean,” (Col. 7), of Black Bulb, Max. in Sun, = 77.6  
Lowest at Night, Black Bulb, (corrected for Index errors), on the th, = 33.0  
“Corrected Mean,” (Col. 8), of Black Bulb, Min. on grass, = 44.0  
Difference of above Means or Range (“exposed”), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 58.1  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 52.8  
†† Computed Temperature







# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Brigside, Lochiel-Cushnie, County of Aberdeen, in Lat. 57° 10' 50", Long. 2° 45' 0" W, Distance from Sea 28 miles.  
 Height of Cistern of the Barometer above Mean Sea-level 885 feet, above Ground 3 feet. During the MONTH of September 1875.  
 The Hours of Observation are of Greenwich Time.

DATE.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER.				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.		Days of Month.
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.									
		Barometer.	Attach- ed Ther- mometer	Barometer.	Attach- ed Ther- mometer	Max. No.	Min. No.	Max. in Sun/rays	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Velocity (0-6), and Direction.	Amount (0-10), and Species.	Velocity (0-6), and Direction.	Amount (0-10), and Species.	No. 3 inches.	No. 12 inches.	No. 22 inches.							
		* No.		No.		No.	No.	No.	No.																						
		inches.	°	inches.	°																										
	1	29.380	54	29.320	58	67	37	90	26	54	49	50	50	SW	5	Y	5	83270	—	5 ci	6 at	12						1			
	2	29.200	60	29.016	62	62	44	71	42	61.6	58.5	57	58	Y	1	Y	5	80280	.40	10 at	10 n	—						2			
	3	28.900	60	29.000	60	59	50	66	44	55	54	50	49	Y	5	Y	5	28510	.47	10 n	10 at	—						3			
	4	29.030	58	29.120	60	61	47	70	39	56	53	52	50	Y	5	Y	5	61680	—	10 at	3 at	2						4			
	5	29.300	58	29.360	63	68	45	86	35	57	53	56	53	Y	5	Y	5	71300	—	3 at	8 ci	12						5			
	6	29.380	61	29.330	63	65	47	93	36	63	58	58	55	Y	5	Y	5	96630	—	3 at	7 at	5						6			
	7	29.240	61	29.100	62	62	48	72	40	56	55	57	55	Y	5	Y	5	03900	—	10 at	8 at	3						7			
	8	29.080	61	29.090	63	66	54	86	50	60	58	57	56	Y	5	Y	5	06540	1.08	5 ci	10 n	5						8			
	9	28.940	61	29.100	63	66	48	81	41	55	54	54	53	Y	1	Y	5	27550	.03	10 n	—	6						9			
	10	29.200	58	29.270	61	62	40	72	34	51	50	52	51	Y	—	Y	—	27840	—	4 at	5 ci	11						10			
	11	29.380	58	29.480	60	66	42	88	34	58	54	50	48	Y	5	Y	—	40460	—	5 cu	—	12						11			
	12	29.550	60	29.560	64	72	32	99	30	63	58	54	53	Y	—	Y	—	59620	—	—	—	12						12			
	13	29.560	61	29.620	65	73	46	96	40	62	60	55	54	Y	—	Y	—	56960	—	—	—	12						13			
	14	29.630	59	29.640	62	68	43	82	37	55	54	54	53	Y	—	Y	—	59630	.03	—	—	12						14			
	15	29.620	62	29.610	62	56	50	60	50	54	53	52	51	Y	—	Y	5	62170	.04	10 at	10 n	—						15			
	16	29.550	60	29.500	60	54	48	63	45	52	51	54	53	Y	5	Y	5	66070	—	10 at	10 at	—						16			
	17	29.420	59	29.450	60	65	49	88	41	55	54	52	51	Y	—	Y	—	567240	—	6 at	4 at	10						17			
	18	29.420	59	29.450	60	55	44	60	35	51	50	52	50	Y	5	Y	5	78700	—	10 at	10 at	—						18			
	19	29.380	59	29.300	60	60	49	79	46	55	52	53	52	Y	5	Y	5	92390	.06	5 ci	10 at	4						19			
	20	29.200	59	29.150	57	54	41	54	35	48.5	48	41	40	Y	5	Y	5	96400	.05	10 n	8 at	—						20			
	21	29.150	55	29.100	55	51	40	63	34	45	44	46	45	Y	—	Y	—	97400	—	10 at	10 at	—						21			
	22	29.170	55	29.220	56	54	42	67	37	49	47	43	41	Y	5	Y	5	21200	—	5 at	10 at	6						22			
	23	29.400	52	29.410	53	49	34	63	26	43	42	43	41	Y	5	Y	5	36510	—	5 at	10 at	4						23			
	24	29.350	52	29.140	55	52	47	60	36	48	46	50	49	Y	1.5	Y	2	08600	.24	10 at	10 n	—						24			
	25	28.860	55	28.940	57	56	48	64	40	52	52	48	46	Y	2	Y	1.5	59830	.15	10 n	5 at	—						25			
	26	28.720	54	28.430	57	58	46	59	40	50	50	56	54	Y	2	Y	1	90240	.67	10 n	10 at	—						26			
	27	28.260	55	28.570	54	56	44	60	37	44.5	44	45	43	Y	3	Y	1.5	08930	.02	10 n	—	—						27			
	28	28.530	52	28.700	53	53	41	63	32	48	44	40	48	Y	1.5	Y	1.5	77080	.03	4 at	8 at	—						28			
	29	28.790	51	28.820	52	51	42	65	35	46	44	45	44	Y	5	Y	5	19770	.20	10 at	10 n	—						29			
	30	29.080	55	29.025	53	54	42	68	38	49	46	46	45	Y	1	Y	5	35980	.08	8 at	10 at	—						30			
	31																											31			
	Sums.	12.13	57700	12.10	57710	270	495	130	1188	235	965	355	24	291				205	175												
	Means.	29.190	57.4	29.192	59.0	59.8	44.3	72.9	37.8	53.2	51.2	50.8	49.7																		
	† Total Corrections for Instru- mental Errors.	-100		-100																											
	‡ Corre- ctions for Diurnal Range.																														
	“Cor- rected Means.”																														
	No. of Column.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
		NOTATION USED IN GENERAL REMARKS.																													
		a. denotes aurora. ci. cirrus. ci-cu. cirro-cumulus. ci-s. cirro-stratus. cu. cumulus. cu-s. cumulo-stratus. f. fog. fr. frost. h-fr. hoar-frost. h. haze. h. d. heavy dew. l. lightning. ll. cl. light clouds. ls. sh. light showers. lu. co. lunar corona. lu. lu. lunar halo.															n. denotes meteor. ms. meteors. n. nimbus. r. rain. h. y. heavy rain. c. h. r. continued heavy rain. s. stratus. sc. scud. s. sleet. s. snow. s. sol. solar halo. sq. squall. t. thunder. t. s. thunder storm. v. wind. g. gale of wind.														
		TABLE FOR ESTIMATING FORCE OF WIND.																													
		Estimated Force, 0-6.		Common Designation.		Estimated Force 0-6.		Common Designation.		Estimated Force, 0-6.		Common Designation.		Estimated Force, 0-6.		Common Designation.															
		0 0.5 1		Calm Very light air Light air		1.5 2 3		Light breeze Fresh breeze Very fresh		4 5 6		Blowing hard Strong breeze Violent gale																			

**BAROMETER**, "corrected Mean" at 9 A.M., minus the Correction†† = 29.016  
 for Temp. (Col. 2), = 29.090... - 0.074...  
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 29.013  
 for Temp. (Col. 4), = 29.092... - 0.079...  
**Mean at Station, corrected, and at 32°**, = 29.014  
 Correction for height, feet above Mean Sea-level, = 949  
**Mean, reduced to 32°, and Sea-level**, = 29.963  
 Highest Reading, corrected for Index error, on the 14th, = 29.640  
 Lowest Do. Do., on the 27th, = 28.260  
 Difference, or **Monthly Range**, = 1.380

**S.-R. THERMOMETER**, (in shade, etc.), **Highest in Month**, (corrected for Index Errors), on the 13th, = 73.0  
**Lowest in Month**, corrected for Index errors, on the 12th, = 32.0  
 Difference, or **Monthly Range**, = 41.0  
 "Corrected Mean" of all the Highest, (Col. 5), = 59.8  
 "Corrected Mean" of all the Lowest, (Col. 6), = 44.3  
 Difference, or **Mean Daily Range**, = 15.5  
 \*\* Calculated **Mean Temperature** of Month, = 52.0  
**S.-R. THERMOMETER**, **Black Bulb in Sun, Highest**, (corrected for Index Errors), on the 13th, = 99.0  
 "Corrected Mean," (Col. 7), of **Black Bulb, Max. in Sun**, = 72.9  
**Lowest at Night**, Black Bulb, (corrected for Index errors), on the 13th, = 26.0  
 "Corrected Mean," (Col. 8), of **Black Bulb, Min. on grass**, = 37.8  
 Difference of above Means or Range ("exposed"), =

**HYGROMETER**, **Mean** (corrected) A.M. and P.M. Reading of **Dry Bulb**, (Cols. 9 and 11), = 52.0  
**Mean** (corrected) A.M. and P.M. Reading of **Wet Bulb**, (Cols. 10 and 12), = 50.4  
 ‡ Computed **Temperature of Dew-Point**, = 48.8  
 ‡ Do. **Elastic Force of Vapour**, = 345  
 ‡ Do. **Weight of Vapour in a Cubic Foot of Air**, = 89  
 ‡ **Relative Humidity**, (Saturation = 100), = 89  
**RAIN** fell on 15 Days; Amount in Inches, = 3.55

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.
A.M.	2		1			8	6	4	1	7
P.M.	3		2	2	4	2	1			5
Mean.	3.0		2.1	6	4	2	1	6		.65

\* Each instrument tested at the Office in Edinburgh bears the stamp "S.M.S.," and a number to be entered in the Heading; or the Number and Initials of the Maker may be here given.  
 † Extracting corrections for both capillarity and Index Errors.  
 ‡ The Diurnal Range for Scotland is as yet unknown.  
 § These "Hygrometrical Deductions" are calculated from Glaisher's Hygrometrical Tables, Second Edition only.  
 ¶ While the Journal Range is unknown, the Arithmetic Mean of Cols. 5 and 6 will be entered as the "Calculated Mean Temperature."  
 \*\* Observations not taken under the conditions specified in the Directions on the other side, or noted at the Top of each column, must be marked as such by the observer, in each Schedule. See over.

Evaporation 1.88 inches

Observations made and Return verified by William Bruce  
Brigside, Lochiel-Cushnie

(Signed) William Bruce  
 The weather has been changeable during the month, backward for harvest work. Crop not half in the stackyard, & a good deal to cut. Peas, Barley, & turnips excellent. Potatoes very much diseased. People healthy - cattle thriving.







# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Boyd's, Leuch-Culbin, County of Aberdeen, in Lat. 57° 10' 50", Long. 2° 45' 0" W, Distance from Sea 28 miles.  
 Height of Cistern of the Barometer above Mean Sea-level 885 feet, above Ground 3 feet. During the MONTH of October 1875.  
 The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.				TEMPERATURE OF WIND, at 5 feet, No.	SEA.	OZONE.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc.  Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.										
		Barometer.	Atmos- phere	Barometer.	Atmos- phere	Max.	Min.	Max.	Min.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Velocity (0-10), and Direction.	Amount (0-10), and Direction.	Velocity (0-10), and Direction.	Amount (0-10), and Direction.	No.	12 inches.	No.	22 inches.							
		* No.	°	No.	°	No.	°	No.	°	No.	°	No.	°	No.	°	No.	°	No.	°	No.	°	No.	°	No.	°	No.	°					
	1	28.830	53	28.760	55	57	45	75	40	54	51	48	47	Y	1.5	W	5	55660	11	5.4	100	6						r. b.	1			
	2	28.700	52	28.720	55	55	36	67	32	58.5	55	43	41	W	5	W	1	83130	—	—	—	11						b. a.	2			
	3	28.765	52	28.500	54	54	38	69	28	48.5	45	48	48	W	5	Y	1	01340	10	—	102	4						r. b.	3			
	4	28.600	52	28.580	56	56	42	67	39	50	46	56	54	W	1.5	W	1.5	53790	02	6.4	100	5						r. b.	4			
	5	28.660	52	28.700	55	56	45	68	40	52	47	46	44	W	2	W	3	54690	05	—	—	11						r. g. b.	5			
	6	29.160	52	29.030	55	55	43	69	35	53	49	48	45.5	W	1	W	2.5	28220	—	—	100	8						b. g.	6			
	7	29.120	52	29.200	53	58	42	63	35	49	45	47	46	W	2	W	1	16120	05	—	—	100	6						r.	7		
	8	29.000	54	29.850	54	54	46	58	42	53	50	51	49	Y	2	Y	2	51910	45	100	100	1						r.	8			
	9	28.920	53	28.960	54	52	41	54	37	42	41	43	41	W	5	W	1	60540	—	100	100	—						r.	9			
	10	28.860	50	28.480	50	51	32	63	22	40	38	42	41	W	5	E	2	11340	11	—	100	5						r.	10			
	11	28.340	50	28.370	50	51	34	68	25	40	39	34	33	W	5	W	1	53760	10	—	—	11								11		
	12	28.670	48	28.520	50	53	30	74	21	40	38	36	35	W	5	W	1	540360	04	6.4	—	8						r.	12			
	13	28.470	48	28.520	50	53	30	56	24	39	38	42	41	W	5	W	1	560060	39	100	100	2						r. b. cl. b.	13			
	14	28.800	50	29.000	51	45	41	48	35	45	44	43	42	E	1	E	1	519310	42	100	100	—						r.	14			
	15	29.050	50	29.040	50	44	40	55	35	43	42	41	41	E	5	E	1	62020	55	100	100	—						r.	15			
	16	28.990	50	29.000	50	45	41	49	38	43	42	43	42	E	5	E	1	515160	25	100	100	—						r.	16			
	17	29.010	50	29.120	50	47	43	50	40	46	45	47	46	E	1.5	E	1	568240	30	100	100	—						r.	17			
	18	29.200	50	29.240	50	47	42	49	37	47	47	42	41	E	1.5	E	1.5	28670	23	100	100	—						r. g.	18			
	19	29.200	49	29.130	48	42	39	46	38	42	42	42	41	E	2	E	2	10330	05	100	100	—						r. g.	19			
	20	28.700	49	28.940	48	42	41	43	39	42	41	42	42	E	1	E	2	94650	55	100	100	—						r.	20			
	21	28.800	48	28.800	48	47	41	46	39	45	42	46	46	E	1	E	1	20330	1.06	100	100	—						r.	21			
	22	28.800	51	28.840	51	46	45	47	43	46	46	47	46	E	1	E	1.5	95210	56	100	100	—						r.	22			
	23	28.900	50	29.080	52	46	43	48	42	45.5	45	43	43	E	1	E	1.5	75740	56	100	100	—						r.	23			
	24	29.200	50	29.260	50	45	41	47	37	43	43	42	41	Y	5	Y	1	587570	22	100	100	2						r.	24			
	25	29.360	50	29.360	50	55	35	68	27	41	40	40	40	Y	1	Y	1.5	91150	—	—	—	10						r.	25			
	26	29.200	50	29.110	50	45	36	49	27	42	42	43	42	E	1	E	1	598690	05	100	100	—						r.	26			
	27	29.150	49	29.200	49	44	37	44	33	45	44	38	38	E	5	E	1	548990	15	100	100	—						r.	27			
	28	29.270	48	29.330	49	41	35	47	29	37.5	37	40	39	E	5	E	1	565680	30	100	100	—						r.	28			
	29	29.380	48	29.350	49	44	38	46	32	40	40	42	42	Y	5	Y	1	583200	15	100	100	—						r.	29			
	30	29.360	49	29.200	49	44	39	47	34	41	40	39.5	38	E	5	E	1	514620	19	100	100	2						r.	30			
	31	29.190	49	29.160	48	42	31	49	28	44	44	39	37	E	5	E	1	522360	13	100	100	4						r.	31			
Sums.		29.475	08	29.330	33	276	284	179	123	1570	108	1025	735	295		340		734														
Means.		28.951	503	28.946	511	48.9	39.2	35.9	33.0	45.1	43.5	43.3	42.3	1.0		1.1																
+ Total Corrections for Instrumental Errors.		-100		-100																												
+ Corrections for Diurnal Range.																																
"Corrected Means."																																
No. of		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	

NOTATION USED IN GENERAL REMARKS.					
a.	denotes aurora.	m.	denotes meteor.		
ci.	cirrus.	ms.	meteors.		
ci-cu.	cirro-cumulus.	n.	nimbus.		
ci-s.	cirro-stratus.	r.	rain.		
cu.	cumulus.	h. r.	heavy rain.		
cu-s.	cumulo-stratus.	c. h. r.	continued heavy rain.		
d.	dew.	s.	stratus.		
f.	fog.	sc.	send.		
fr.	frost.	s.	sleet.		
h. fr.	hoar-frost.	s.	snow.		
h.	haze.	so. h.	solar halo.		
h. d.	heavy dew.	sq.	squall.		
hl.	hail.	sq.	squale.		
l.	lightning.	t.	thunder.		
li. sh.	light showers.	w.	wind.		
lu. co.	lunar corona.	g.	gale of wind.		
lu. h.	lunar halo.				

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

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† = 28.795  
 for Temp. (Col. 2), = 28.851... - 0.056 = 28.795  
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 28.788  
 for Temp. (Col. 4), = 28.846... - 0.058 = 28.788  
 Mean at Station, corrected, and at 32°, = 28.791  
 Correction for height, feet above Mean Sea-level, = 965  
 Mean, reduced to 32°, and Sea-level, = 28.756  
 Highest Reading, corrected for Index error, on the 29 th, = 29.380  
 Lowest Do. Do., on the 11 th, = 28.340  
 Difference, or Monthly Range, = 1.040

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 7 th, = 58.0  
 Lowest in Month, corrected for Index errors, on the 12 th, = 30.0  
 Difference, or Monthly Range, = 28.0  
 "Corrected Mean" of all the Highest, (Col. 5), = 48.9  
 "Corrected Mean" of all the Lowest, (Col. 6), = 39.2  
 Difference, or Mean Daily Range, = 9.7  
 \*\* Calculated Mean Temperature of Month, = 44.0  
 S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, = 75.0  
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 55.9  
 Lowest at Night, Black Bulb, (corrected for Index errors), on the th, = 21.0  
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 34.0  
 Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 44.2  
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 42.9  
 †† Computed Temperature of Dew-Point, = 41.4  
 †† Do. Elastic Force of Vapour, = 2.61  
 †† Do. Weight of Vapour in a Cubic Foot of Air, ... = 90  
 †† Relative Humidity, (Saturation = 100), = 7.34  
 RAIN fell on 27 Days; Amount in Inches, = 7.34

WIND.		SUMMARY.									
Direction.		N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
A.M.				14	2	4		11			
P.M.		1		15	2	4	1	8			
Mean.		1	0	14	2	4	1	9	0	0	1.05

\* Each instrument tested at the Office in Edinburgh bears the stamp "S.M.S.," and a number to be entered in the Heading; or the Number and Initials of the Maker may be here given.  
 † Embracing corrections for both capillarity and Index Errors.  
 †† The Diurnal Range for Scotland is as yet unknown.  
 ‡ Practically, though not absolutely a minor correction.  
 ‡‡ These "Hygrometrical Deductions" are calculated from Glaisher's Hygrometrical Tables, Second Edition only.  
 § While the Diurnal Range is unknown, the Arithmetical Mean of Cols. 5 and 6 will be entered as the "Calculated Mean Temperature."  
 Any Observations not taken under the conditions specified in the Directions on the other side, or noted at the Top of each column, must be marked as such by the observer, in each Schedule. See over.

Evaporation 1.04 inches

Observations made and Return verified by. William Bruce  
Boyd's Leuch-Culbin

(Signed) William Bruce  
 The weather through the whole month very wet, bad for harvest work, remnants of the crop still in the stock, greatly damaged, almost useless. crops good. Stakeyards built well. Turnips a splendid crop. Potatoes almost useless for taking up yet. With the exception of severe colds the people are healthy. cattle thriving.







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Bogside, Loch-Cushnie, County of Aberdeen, in Lat. 57° 2' 50", Long. 2° 45' 0", Distance from Sea 28 miles.Height of Cistern of the Barometer above Mean Sea-level 885 feet, above Ground 3 feet.During the MONTH of November 1875.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.		CLOUDS.				SUNSHINE. Hours.	THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc.  Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 A.M.		P.M.		9 h. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Barometer. * No.	Attach- ed Ther- mometer	Barometer. No.	Attach- ed Ther- mometer	Max. No.	Min. No.	Max. No.	Min. No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	Velocity (0-6), and Species.	Amount (0-10), and Species.	Velocity (0-6), and Direction.	Amount (0-10), and Species.	No. 3 inches.	No. 12 inches.		No. 22 inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† = 28.857  
for Temp. (Col. 2), = 28.896 - 0.039 = 28.857  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 28.858  
for Temp. (Col. 4), = 28.899 - 0.041 = 28.858  
Mean at Station, corrected, and at 32°, = 28.858  
Correction for height, feet above Mean Sea-level, = 982  
Mean, reduced to 32°, and Sea-level, = 29.840  
Highest Reading, corrected for Index error, on the 23 th, = 29.610  
Lowest Do. Do., on the 11 th, = 28.260  
Difference, or Monthly Range, = 1.350

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 11 th, = 56.0  
Lowest in Month, corrected for Index errors, on the 11 th, = 20.0  
Difference, or Monthly Range, = 36.0  
"Corrected Mean" of all the Highest, (Col. 5), = 39.7  
"Corrected Mean" of all the Lowest, (Col. 6), = 32.1  
Difference, or Mean Daily Range, = 7.0  
\*\* Calculated Mean Temperature of Month, = 35.6  
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 11 th, = 60.0  
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 44.0  
Lowest at Night, Black Bulb, (corrected for Index errors), on the 11 th, = 9.0  
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 24.6  
Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 35.5  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 34.6  
†† Computed Temperature of Dew-Point, = 33.2  
†† Do. Elastic Force of Vapour, = 191  
†† Do. Weight of Vapour in a Cubic Foot of Air, = 91  
†† Relative Humidity, (Saturation = 100), = 91  
RAIN fell on 16 Days; Amount in Inches, = 4.96

WIND.		SUMMARY.									
Direction.		N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
A.M.	9			2	1	9	1	5	3		
P.M.	12			2	2	4		8	2		
Mean.											

\* Each instrument tested at the Office in Edinburgh bears the stamp "S.M.S." and a number to be entered in the Heading, or the Number and initials of the Maker may be here given.  
† The Diurnal Range for Scotland is as yet unknown.  
†† These "Hygrometrical Deductions" are calculated from Glaisher's Hygrometrical Tables, Second Edition only.  
‡ While the Journal Range is unknown, the Arithmetical Mean of Cols. 5 and 6 will be entered as the "Calculated Mean Temperature."  
Any Observations not taken under the conditions specified in the Directions on the other side, or noted at the Top of each column, must be marked as such by the observer, in each Schedule. See over.

Evaporation 0.87 of an inch

Observations made and  
Returned by

William Bruce,  
Bogside, Loch-Cushnie.

(Signed) William Bruce.  
The weather during the month has been very bad for all out-door work. Ploughing is getting back. There are still a few remnants of the crop in the fields in the stocks, which the crows have nearly leveled to the ground. People healthy. Stock healthy but not thriving owing to the turneps being a long wet and foul.



Posidon  
Nov 1895

BOOK POST.

Mr ER BUCHAN.

*Secretary of the Meteorological Society of Scotland.*

EDINBURGH.

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

FOREST TREES.	In Flower.	In Leaf buds.	In Leaf.	Divided of Leaves.	COARSE, mentioning variety.	Sorting or Planting.	Appearing on above Ground.	In Flower.	In Leaf buds.
Alder.				2	Barley,				
Asp.				2	Bare or Bigr.				
Beech.				2	Oats,				
Birch.				3	Wheat,				
Elm.				2	Beans.				
Larch.				2	Potatoes,				
Lime.				2	Turnips,				
Oak.				8	Rye Grass,				
Sycamore or Plane.				2					

EDINBURGH, December 1874.

OBSERVATIONS IN CONNECTION WITH THE PERIODICAL RETURN OF THE SEASONS.



## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Bosside, Loch-Cushnie, County of Aberdeen, in Lat. 57° 0' 50", Long. 2° 45' 0" W, Distance from Sea 28 miles.  
Height of Cistern of the Barometer above Mean Sea-level 885 feet, above Ground 3 feet. During the MONTH of December 1875.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER. No. —				WIND.				RAIN.		CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.  As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevailing Diseases, etc.  Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Days of Month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		9 h. A.M.		9 h. P.M.		Protected in Shade, & feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		Readings of the H. Cup Anemometer No. —		No. of hours in which it fell.	Amount in inches.	9 A.M.		P.M.		9 h. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Barometer. * No. —	Attach- ed Ther- mometer No. —	Barometer. No. —	Attach- ed Ther- mometer No. —	Max. No. —	Min. No. —	Max. in Sun-rays No. —	Min. on Grass. No. —	Dry bulb. No. —	Wet bulb. No. —	Dry bulb. No. —	Wet bulb. No. —	Direction. No. —	Force. No. —	Direction. No. —	Force. No. —	Velocity (0—10), and Direction. No. —	Amount (0—10), and Species. No. —			Velocity (0—10), and Direction. No. —	Amount (0—10), and Species. No. —	SUNSHINE. Hours.	No. — 3 inches.	12 inches.					No. — 22 inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† = 28.953  
for Temp. (Col. 2), = 28.987... - 03.4  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 28.942  
for Temp. (Col. 4), = 28.879... - 03.7  
Mean at Station, corrected, and at 32° = 28.947  
Correction for height, feet above Mean Sea-level, = 981  
Mean, reduced to 32°, and Sea-level, = 29.928  
Highest Reading, corrected for Index error, on the 6 th, = 29.670  
Lowest Do. Do., on the 20 th, = 28.270  
Difference, or Monthly Range, = 1.400

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 5 th, = 50.0  
Lowest in Month, corrected for Index errors, on the 6 th, = 21.0  
Difference, or Monthly Range, = 29.0  
"Corrected Mean" of all the Highest, (Col. 5), = 39.9  
"Corrected Mean" of all the Lowest, (Col. 6), = 32.3  
Difference, or Mean Daily Range, = 7.6  
\*\* Calculated Mean Temperature of Month, = 36.1  
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the th, = 50.0  
"Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 43.5  
Lowest at Night, Black Bulb, (corrected for Index errors), on the th, = 10.0  
"Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 26.3  
Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 36.3  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 35.1  
†† Computed Temperature of Dew-Point, = 33.4  
†† Do. Elastic Force of Vapour, = 192  
†† Do. Weight of Vapour in a Cubic Foot of Air, = 90  
†† Relative Humidity, (Saturation = 100), = 90  
RAIN fell on 13 Days; Amount in Inches, = 1.96

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Mean Velocity in miles per day.
A.M.	3					6	8	12	2	
P.M.	2		1			5	7	14	2	
Mean.	2	0	1	0	6	7	13	2	0	9.5

\* Each instrument tested at the Office in Edinburgh bears the stamp "S.M.S.," and a number to be entered in the Heading; or the Number and Initials of the Maker may be here given.  
† Enhancing corrections for both capillarity and Index Errors.  
†† The Diurnal Range for Scotland is as yet unknown.  
††† Practically, though not absolutely minus correction.  
†††† These "Hygrometrical Deductions" are calculated from Glaisher's Hygrometrical Tables, Second Edition only.  
††††† While the Diurnal Range is unknown, the Artificial Mean of Cols. 5 and 6 will be entered as the "Calculated Mean Temperature."  
Any Observations not taken under the conditions specified in the Directions on the other side, or noted at the Top of each column, must be marked as such by the observer, in each Schedule. See over.

Evaporation 0.71 of an inch.

Observations made and Return verified by William Bruce  
Bosside, Loch-Cushnie.

(Signed) William Bruce  
The weather during the month was of a varied nature snow to the depth of 14 inches, heavy rains, and hail, the last week was fine and fresh. But down work in appears, very little has ploughed yet, and in many cases the stubbles are not all ploughed. No disease in the district and people in general healthy. Cattle has not thriven so well as in general owing to the wet foul turnips their stomachs in many cases got out of order and then they were given to herring. Stock yard are standing out well, but turnips not so well as was expected.



