

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Abegyn Castle, County of Aberdeen, in Lat. _____, Long. _____, Distance from Sea 31 miles.Height of Cistern of the Barometer above Mean Sea-level 453.3 feet, above Ground 4 feet.During the MONTH of January 1887.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS.				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.		Readings of the H. Cup Anemometer.		9 A.M.		P.M.		9 h. A.M.		9 h. P.M.								
		Barometer.	Attached Thermometer.	Barometer.	Attached Thermometer.	Max.	Min.	Max.	Min.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	No. of hours in which it fell.	Amount in inches.	Velocity (0-6).	Amount (0-10).	Velocity (0-6).	Amount (0-10).	No. 3 inches.	No. 12 inches.	No. 22 inches.	No. 3 inches.					No. 12 inches.	No. 22 inches.	
		* No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.					No.	No.	No.
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°					°	°	°
	1	29.930	43	29.850	45	21				30	29	32	32	W	W			0.01		CU	W								4 fine day dull night	1				
	2	29.675	42	29.575	43	30				32	32	32	32	W	W					W	W								Rain A.M. & Snow	2				
	3	29.500	40	29.600	42	21				24	23	20	20	W	W					ST	CU								Foggy and overcast	3				
	4	29.700	41	29.700	41	25				30	30	38	57	SW	W			0.10		CU	W								Partly day	4				
	5	29.910	43	28.825	45	35				38	38	47	44	SE	W			1.00		W	CU								Very rainy day high wind	5				
	6	28.825	46	29.025	48	40				40	38	42	39	W	W			0.01		W	W								Very windy day showers	6				
	7	29.225	48	29.400	46	32				42	38	38	36	W	W					CU	CU								Splendid day	7				
	8	29.300	48	29.300	48	35				41	38	43	41	W	W					W	CU								"	8				
	9	29.400	49	29.400	50	37				43	40	42	40	W	W					ST	ST								"	9				
	10	29.400	44	29.300	48	37				42	39	38	36	W	SW			0.01		ST	W								4 fine day shower at night	10				
	11	29.100	43	29.200	46	33				33	31	36	34	W	NW					CU	CU								Very cold blizzard	11				
	12	29.400	44	29.800	48	31				32	32	42	40	NW	NW					CU	CU								fine day	12				
	13	29.750	44	29.750	45	37				40	38	42	40	W	W					CU	ST								"	13				
	14	29.800	45	28.850	46	40				43	40	44	41	W	W					CU	CU								"	14				
	15	29.900	48	30.050	49	45				47	45	48	46	W	W					CU	CU								"	15				
	16	30.050	48	29.950	48	28				42	40	32	32	W	W					ST	CU								"	16				
	17	30.000	46	29.950	48	28				32	31	40	39	SE	E					CU	CU								"	17				
	18	29.800	43	29.800	46	27				30	30	40	38	SW	W					CU	CU								"	18				
	19	29.750	48	29.650	52	38				51	47	48	47	W	SW					CU	CU								"	19				
	20	29.450	49	29.350	48	33				39	38	36	35	SE	SW					W	W								Gale early morning lightening night	20				
	21	29.200	48	29.200	50	34				46	45	40	38	SW	SW					W	W								hurricane all night	21				
	22	29.225	50	29.100	49	34				42	40	35	34	NW	NW					CU	CU								Cold day sh. P.M.	22				
	23	29.400	40	28.850	45	29				32	30	34	33	NE	NW			0.06		CU	W								Sleety day	23				
	24	28.600	42	28.800	43	28				29	28	55	34	NW	NW			0.06		CU	CU								Cold day some sh. snow	24				
	25	28.600	40	28.550	40	26				28	28	27	27	NW	NW			1.03		CU	CU								Lightening at night & high waves & gale	25				
	26	29.450	40	27.150	41	20				30	30	54	34	W	E					CU	W								Hurricane wind at night	26				
	27	28.800	41	28.350	43	22				31	30	31	30	W	W			0.04		CU	CU								storm of wind & snow	27				
	28	29.400	40	28.850	43	26				32	30	36	34	W	SW			0.03		CU	CU								Changeable day some snow	28				
	29	29.000	42	28.800	43	26				24	23	26	25	W	W			0.03		CU	CU								Very high wind all day	29				
	30	28.950	43	29.000	43	27				36	35	33	35	W	NW			0.05		W	W								Pough sh. of snow	30				
	31	29.950	43	28.700	44	28				35	34	33	32	W	W					CU	W								Lightening at night	31				
																														fine day				
Sums.		1852	12	1831	14	27				126	150	134	195					1.39												NOTATION USED IN GENERAL REMARKS.				
Means.		29.273	44.2	29.241	45.7	30.9				36.3	34.8	37.5	36.3																		a. denotes aurora.			
+ Total Corrections for Instrumental Errors.		-0.0		-0.0		4.0																									m. denotes meteor.			
+ Corrections for Diurnal Range.																															ci. cirrus.			
"Corrected Means."																															ms. meteors.			
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	ci-cu. cirro-cumulus.		
																																ci-s. cirro-stratus.		
																																	cu. cumulus.	
																																	cu-s. cumulo-stratus.	
																																	d. dew.	
																																	f. fog.	
																																	fr. frost.	
																																	h-fr. hoar-frost.	
																																	h. haze.	
																																	h.d. heavy dew.	
																																	h. hail.	

100

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Obogue Castle, County of Aberdeen, in Lat. _____, Long. _____, Distance from Sea 37 miles.
Height of Cistern of the Barometer above Mean Sea-level 453.3 feet, above Ground 4 feet.

During the MONTH of February 188 4.

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.		Days of Month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		9 h. A.M.		9 h. P.M.		Protected in Shade, feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		9 h. A.M.		9 h. P.M.		As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
		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.	Readings of the H.Cup Anemometer. No. —	No. of hours in which it fell.	Amount in inches. No. —	Velocity (0—10), and Direction.	Amount (0—10), and Species.	Velocity (0—10), and Direction.	Amount (0—10), and Species.	No. —	No. —	No. —	Temperature at 1 fathom and Density.	0—10.	Mention the hour at which Storms, including Thunder and Lightning, began and ended.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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BAROMETER, “corrected Mean” at 9 A.M., minus the Correction†† = 29.254
for Temp. (Col. 2), = 29.293... 39...
Corrected Mean” of Barometer at 9 P.M., minus the Correction†† = 29.264
for Temp. (Col. 4), = 29.304... 40...
Mean at Station, corrected, and at 32°... = 29.259
Correction for height, feet above Mean Sea-level, = 501
Mean, reduced to 32°, and Sea-level, = 29.760
Highest Reading, corrected for Index error, on the 16th, = 29.900
Lowest Do. Do. on the 10th, = 28.250
Difference, or Monthly Range, = 1.650

* 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 “Hygrometrical Deductions” are calculated from Glaisher’s Hygrometrical Tables, Second Edition only.
§ While the Diurnal Range is unknown, the Arithmetic Mean of Cols. 9 and 10 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.

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the th, = _____
Lowest in Month, corrected for Index errors, on the 29th, = 21.0
Difference, or Monthly Range, = _____
“Corrected Mean” of all the Highest, (Col. 5), = _____
“Corrected Mean” of all the Lowest, (Col. 6), = 31.2
Difference, or Mean Daily Range, = _____
** Calculated Mean Temperature of Month, = _____

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

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 36.3
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 35.0
† Computed Temperature of Dew-Point, = _____
† Do. Elastic Force of Vapour, = _____
† Do. Weight of Vapour in a Cubic Foot of Air, = _____
† Relative Humidity, (Saturation = 100), = _____
RAIN fell on 2 Days; Amount in Inches, = 3.19

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.
A.M.										
P.M.										
Mean.										

Observations made and
Return verified by

(Signed)

George H. Smyth

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Abegay Castle, County of Aberdeen, in Lat. _____, Long. _____, Distance from Sea 31 miles.Height of Cistern of the Barometer above Mean Sea-level 453.3 feet, above Ground 4 feet.During the MONTH of March 1884.

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.		Readings of the H. Cap Anemometer.		No. of hours in which it fell.		Amount in inches.		9 A.M.		P.M.		9 h. A.M.						Temperature of WELL at depth of feet, No.		Temperature at 1 fathom, and Density.		0—10.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		Barometer.	Attach- ed Ther- mometer.	Barometer.	Attach- ed Ther- mometer.	Max.	Min.	Max. in Sun's rays	Min. on Grass.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direction.	Force.	Direction.	Force.	No.	9 h. A.M.	Velocity (0—5).	Amount, (0—10), and Species.	Velocity (0—6).	Amount, (0—10), and Species.	No.	3 inches.	12 inches.	22 inches.	No.	3 inches.					12 inches.	22 inches.	No.	9 A.M.	9 P.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		* No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.					No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† = 29.295
for Temp. (Col. 2), = 29.342 - 47
Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 29.271
for Temp. (Col. 4), = 29.318 - 47
Mean at Station, corrected, and at 32°, = 29.283
Correction for height, feet above Mean Sea-level, = 50.2
Mean, reduced to 32°, and Sea-level, = 29.785
Highest Reading, corrected for Index error, on the 25th, = 29.900
Lowest Do. Do., on the 10th, = 28.650
Difference, or Monthly Range, = 1.250

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

Lowest in Month, corrected for Index errors, on the 11th, = 24.0

Difference, or Monthly Range, =

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

"Corrected Mean" of all the Lowest, (Col. 6), = 22.4

Difference, or Mean Daily Range, =

** Calculated Mean Temperature of Month, =

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

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

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

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

Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry

Bulb, (Cols. 9 and 11), = 37.9

Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 36.5

†† Computed Temperature of Dew-Point, =

†† Do. Elastic Force of Vapour, =

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

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

RAIN fell on 20 Days; Amount in Inches, = 4.34

WIND.		SUMMARY.							
Direction.		N	NE	E	SE	S	SW	W	NW
A.M.	1					5	16	2	4
P.M.	1					5	17	2	4
Mean.						5	16	2	4

Observations made and
Return verified by

George H. Smythe

(Signed)

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Abbeville Castle, County of Aberdeen, in Lat. _____, Long. _____, Distance from Sea. 31 miles.
 Height of Cistern of the Barometer above Mean Sea-level 453.5 feet, above Ground 14 feet.
 During the MONTH of April 1884.
 The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER.				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.		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	Barometer. No. _____	Attach- ed Ther- mometer	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				Velocity (0-6).	Amount (0-10).	Velocity (0-6).	Amount (0-10).	No. _____	No. _____					No. _____
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°																	
		1	29.050	415	29.100	418	29				41	39	43	42	SE		SE		0.01		41		41								
2	29.200	414	29.200	419	34				42	41	44	43	SE		SE		0.08		41		41								Very rainy day.	2	
3	29.200	415	29.150	419	34				44	43	43	42	SE		SE		0.02		41		41								fine sun rainy P.M.	3	
4	29.100	415	29.100	422	37				45	44	38	37	SE		SE		0.01		41		41										4
5	29.100	414	28.900	424	35				41	40	44	43	SE		SE		0.01		41		41										5
6	29.100	416	29.250	422	36				44	43	40	38	SE		SE		0.01		41		41									Very cold	6
7	29.250	417	29.300	424	30				47	46	46	44	SE		SE		0.02		41		41										7
8	29.600	419	29.650	423	30				51	50	36	35	SE		SE				41		41										8
9	29.650	418	29.650	423	28				48	48	30	30	SE		SE		0.04		41		41										9
10	29.650	414	29.600	423	22				31	30	32	32	SE		SE		0.01		41		41										10
11	29.650	413	29.650	420	25				35	35	38	36	SE		SE		0.01		41		41										11
12	29.700	414	29.750	418	26				39	38	37	37	SE		SE		0.13		41		41										12
13	29.800	411	29.850	419	35				37	36	38	36	SE		SE		0.10		41		41										13
14	29.850	412	29.700	418	36				42	41	38	37	SE		SE		0.10		41		41										14
15	29.675	419	29.550	421	36				43	42	38	36	SE		SE		0.06		41		41										15
16	29.775	420	29.650	420	33				41	40	36	35	SE		SE		0.04		41		41										16
17	29.700	419	29.700	420	33				40	40	36	34	SE		SE		0.01		41		41										17
18	29.700	420	29.500	419	34				39	36	39	36	SE		SE		0.04		41		41										18
19	29.650	421	29.550	419	35				39	38	40	39	SE		SE		0.21		41		41										19
20	29.600	420	29.600	418	33				41	38	36	35	SE		SE		0.22		41		41										20
21	29.650	419	29.700	415	28				41	39	30	32	SE		SE				41		41										21
22	29.675	416	29.600	416	25				39	36	37	35	SE		SE		0.05		41		41										22
23	29.500	416	29.500	417	29				38	37	34	33	SE		SE				41		41										23
24	29.500	415	29.500	413	28				39	38	32	30	SE		SE				41		41										24
25	29.475	416	29.450	417	23				33	32	36	35	SE		SE				41		41										25
26	29.300	417	29.300	418	28				34	33	38	35	SE		SE				41		41										26
27	29.475	418	29.525	418	26				37	36	33	33	SE		SE		0.01		41		41										27
28	29.600	419	29.600	418	28				42	38	34	33	SE		SE		0.00		41		41										28
29	29.450	416	29.200	418	30				39	37	42	40	SE		SE				41		41										29
30	29.100	419	29.200	419	37				45	42	40	36	SE		SE				41		41										30
31																			41		41										31
Sums.		1582	15	156	17	34			14	13	13	13					0.99														
Means.		29.474	4184	29.469	4195	31.1			40.7	39.2	37.6	36.3																			
+ Total Corrections for Instru- mental Errors.		-0.20		-0.20		41.0																									
+ 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.	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.	" squall.
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.	" 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 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), = 29.454 - 0.05 = 29.401
 Corrected Mean" of Barometer at 9 P.M., minus the Correction (†) for Temp. (Col. 4), = 29.449 - 0.06 = 29.383
 Mean at Station, corrected, and at 32°, = 29.397
 Correction for height, 0.1 feet above Mean Sea-level, = 501
 Mean, reduced to 32°, and Sea-level, = 29.898
 Highest Reading, corrected for Index error, on the 14 th, = 29.850
 Lowest Do. Do. on the 5 th, = 28.880
 Difference, or Monthly Range, = 1.050

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 14 th, = 23.0
 Lowest in Month, corrected for Index errors, on the 10 th, = 23.0
 Difference, or Monthly Range, = 0.0
 "Corrected Mean" of all the Highest, (Col. 5), = 32.1
 "Corrected Mean" of all the Lowest, (Col. 6), = 32.1
 Difference, or Mean Daily Range, = 0.0
 ** Calculated Mean Temperature of Month, = 0.0
 S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 14 th, = 32.1
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = 32.1
 Lowest at Night, Black Bulb, (corrected for Index errors), on the 14 th, = 32.1
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = 32.1
 Difference of above Means or Range ("exposed"), = 0.0

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 39.2
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 37.7
 †† Computed Temperature of Dew-Point, = 37.7
 †† Do. Elastic Force of Vapour, = 0.0
 †† Do. Weight of Vapour in a Cubic Foot of Air, = 0.0
 †† Relative Humidity, (Saturation = 100), = 0.0
 RAIN fell on 21 Days; Amount in Inches, = 0.99

WIND.		SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.
A.M.	4	5	8	2			1	3			
P.M.	3	5	8	8			2	3	1		
Mean.	3	5	8	9	0	1	2	2			

Observations made and
 Return verified by

George A. Smyth

(Signed)

FOR TAKING METEOROLOGICAL

The Council of the Society recommend that the Self-Registering Thermometers, and the Dry and Wet Bulb Hygrometers, be kept in Stevenson's Louvre-boarded Box for Thermometers, painted white inside and outside, and secured to four stout posts, also painted white, firmly fixed in the ground. The posts must be of such a length that when the Thermometers are hung in position the Bulbs of the Minimum Thermometer, and of the Dry and Wet Bulb Thermometers will be exactly at the same height of four feet above the ground, the Minimum Thermometer being hung immediately above the Minimum Thermometer Box. It is to be placed over a plot of grass, and in a free open space to which the sun's rays have free access for as much of the day as surrounding conditions enable the Observer to secure. The Thermometers are suspended on cables in the centre of the Box and face the door, which should open to the north. The Council regard the question of UNIFORMITY of HEIGHT ABOVE GROUND, AND METHOD IN PROTECTING THE THERMOMETERS, as vital in the use of a Self-Registering system of Meteorological Observation, since without it Observations made at different Stations are uncomparable, thus rendering it impossible to compare the climates of places with each other as they are in their most important features.

Professor Phillips, and Negretti and Zambra's Maximum Thermometers, and Rudheford's Minimum Thermometer are recommended. It is recommended that these Thermometers be graduated on the glass stem. The Maximum Thermometer is liable to two demerits—viz, the occurrence of spirit breaking, and part of the spirit distilling by high temperature and leaking at the top of the tube. This demerit may be avoided by occasional concurrence with Protected Thermometers, but of frequent occurrence with exposed Thermometers. Hence a systematic examination of Minimum Thermometers ought to be a regular part of the work carried by each Observer.

These results make it different Stations are comparable, thus rendering it impossible to compare the Climates of places with each other as they are at present.

Professor Phillips, and Negretti and Zanbrat's Maximum Thermometers, and Rutherford's Minimum Thermometer are recommended. It is recommended that these Thermometers be graduated on the glass stem. The Maximum Thermometer is liable to two demerits—viz, the minimum of spirit breaking, and part of the spirit distilling by high heating and lying at the top of the tube. This demerit may be avoided by occasional coincidence with Protected Thermometers, but of frequent occurrence with exposed Thermometers. Hence a systematic examination of Minimum Thermometers ought to be a regular part of the work carried by each Observer.

Fortunately, Spirit Thermometers may be easily set right by any part of the work carried on by each Observer.

When the column of spirit chances to separate. Let the thermometer be taken in the hand by the end farthest from the bulb, and then forcibly swung down towards the base above the head, on the principle of centrifugal force, to send the detached portion of spirit till it unites with the column.

New throws, or swinging strokes, will generally be sufficient for the purpose, and should be repeated as often as the column separates.

process; after which the Thermometer should be placed in a similar position, to allow the rest of the spirit still adhering to the sides of the tube to drain down to the column. But another method must be adopted, if the portion of spirit in the top of the tube is small. The spirit should be applied slowly and cautiously to the top end of the tube, where the detached particles of sand may be supposed to vapour by the attraction of the spirit, so that the surface of the unbroken column may be taken that the heat is not applied unnecessarily for this being done, the tube will break and the instrument be destroyed. The best way to apply the requisite amount of spirit, is by bringing the end of the tube slowly down towards a metal flame from a gas-burner; or, if gas be not at hand, a piece of ignited metal will serve instead.

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

[illegible]

The Hygrometer in use at the Society's Stations consists of two thermometers usually, but not necessarily, mounted on one frame. As apparently slight deviations from the approved form of this apparatus seriously vitiate the observations, Observers are specially requested to attend to the following conditions:—The bulbs must hang down at least an inch from the scales and frame to which they are attached, and must not be exposed to draughts of air.

As the frame must be such as will bring the tubes forward to the level of the water, it may be suspended; the water-tube must be covered, and altogether placed to the side, and a little below the level of the wet bulb, but in no case under the bulb; the instrument must be of medium fineness, and faced at the neck of the tube by the cotton, which also supplies it with water. It must be held by the Observer that the mistin is always clean and moist, and that the water is not dried up. In frosty weather, observation is to be made with great care. The bulb must be moistened by immersion from 15 to 30 minutes before the hour of observation. From the film of ice thus formed evaporation will proceed as from the moist cloth in ordinary circumstances.

Reading of the Thermometer

Bring the eye exactly opposite the tip of the index column of mercury. The reading ought to be taken to tenths of a degree, and noted in decimals. Thus, if the thermometer will be read— 39° , or 40° $\frac{1}{10}$, or again, 40° $\frac{1}{10}$, 40° $\frac{2}{10}$, 40° $\frac{3}{10}$, according to its indication a little under, an exact coincidence with, or a little over 40° or 40° $\frac{1}{10}$, respectively. In reading Rutherford's Minimum thermometer, 40 or less must be registered 40° $\frac{2}{10}$ or 40° $\frac{3}{10}$, and 40° $\frac{1}{10}$ or 40° $\frac{2}{10}$ respectively. In reading the thermometer the indication of that end of the index which is next to the dry of the spirit is alone noted. On opening the thermometer the Dry and Wet Bulb thermometers are to be fast, read and compared, and the difference between them is to be written down, as usual, as the difference between the two. The thermometer read, named 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 a.m. only, as indicating the greatest and least degrees of temperature in the course of 24 hours.

Temperature.

It is not a matter of indifference whether the

No instrument ought to be used for Meteorological purposes till it has been carefully tested by comparison with a Standard Thermometer. When such Thermometers are Standard Thermometer. The stem, but merely on unattached 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 those of minimum Thermometers, ought frequently to be compared with the true 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 now or melting ice.

In selecting instruments, the following points require attention:-

The divisions of the venter of Barometers in reference to their scales must be uniform; the zero point of the same must be at the top of the perfect forehead of the Barometer from air; the correct num-

of the scale of every instrument; the rejection of Thermometers, the frameworks of which are not likely to stand exposure to the weather, as shown in the past by repeated and annoying breakages; the use of Thermometers of similar construction; and as regards Maximum Thermometers, either Negretti and Zambra's, or Phillips's, whichever the Society may prefer. By the laws of the Society, Members and Observers have only to register. By the laws of the Society, Members and Observers have only to register. By the laws of the Society, Members and Observers have only to register. By the laws of the Society, Members and Observers have only to register.

A system of simultaneous observation, pursued at different Stations, is likely to give highly valuable and important results particularly in connection with the English class of thickly-planting Straws, over the limited district round Eppingham called Stromt Strations. In the course of being established by the Society for the systematic investigation of the relation of the force of the wind to Extraneous circumstances, and other points connected therewith.

The Concomitant and Homogeneous Cup Anemometer, under a self-registering instrument which shows the amount of Wind that passes it per day; from which we can also determine the mean Velocity of the Wind at the time of

Force. observation may be ascertained. For indicating the force of the Wind at any particular hour of observation, the Pressure in millimeters recently published by the Society by Mr. T. Stevenson, the Honorary Secretary, and Mr. R. Ballingall, the Society's Observer at Falklands, are recommended as likely to secure uniformity in making observations on the Force of the Wind. Many causes conspire to produce anomalies in Rain Returns, arising partly from the difficulty of obtaining

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The float ought to be made of iron, and the float rise to its height only at the time the instrument is used; and the float rise to its height only at the time the instrument is used; and the float rise to its height only at the time the instrument is used.

<p>Snow-falls. snow showers occurs, it should be noted in the Remarks column, and the letter S affixed to the depth of water received in Gauge.</p> <p>The depth of the snow must be measured in some open place where there is no drift or snow, and registered in addition to, and as a check upon, the indications of the Rain-Gauge. For wind, rain, and snow, as indicated in every column, the Observers cannot be too careful to register observations only; and nothing that partakes of the nature of deduction or inference.</p>	<p>Convenient abbreviations for the nomenclature of Clouds will be found the other side. The amount of Cloud ought to be</p>
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Clouds. The sky overhead (α , within 20° or 30° of the zenith). The stratus clouds that appear near the horizon are viewed obliquely; and thus, being able to judge their amount, we ought not to fall into error by assuming them to account in the Clouds' column. The amount of changes may be noted among the Remarks. The amount of Cloud is entered from a scale of 0 to 10; thus when the sky overboard is entirely covered by Clouds it is entered 10, when half covered by Clouds it is entered 10, and so on.

Observations of the Clouds are made at 9 a.m. and at sunset, illustrating the condition and currents of the upper and lower regions of the atmosphere. The entries in the scrollette are to be made under the following names.—In the column Velocity add Directly

5, S. W. will indicate that the upper strata of Clouds travel with extreme velocity from S.W. and those in the lower regions from W., with one-third the speed of the former. Again, in the second column, an entry of $\frac{2}{4}$ st. will indicate that the height of the clouds is $\frac{2}{4}$ of the distance from the observer to the horizon, and that the sky is further obscured to the extent of 2-fifths lower Clouds of the cumulo strata 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 its more obscure phenomena of Meteorology.

The approximate number of Hours in which, objects in the sun try at shadows, should be entered in the proper column.

Shinshin.

column.
As the germination and growth of crops and plants generally depend greatly on the temperature of the soil,—the amount and constancy,—the Council recommended Thermometers.

Observations in this interesting department he 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 lifted with sloping collars, to prevent rain water being conveyed to the bulbs by stems or wooden frames.

A knowledge of the Temperature of the Sea is not only in itself important, but in its relations to that of our island, a most important branch of Meteorology. The Council therefore recommended that the Temperature of the Sea be carefully taken by a properly constructed apparatus, from boats, canoes, &c. If this be impracticable, from the ends of piers and rocks round the coast, where it is not influenced by that of river water, and as high inland as possible by currents sweeping along the coast, and as high up the estuary as possible, will be found to be very useful in ascertaining the temperature of the land, either greatly heated by the sun or cooled by normal radiation. At or near the height of low

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SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at The Gardens Above Castle County of Aberdeen, in Lat. _____, Long. _____, Distance from Sea 3/1 miles.Height of Cistern of the Barometer above Mean Sea-level 453.3 feet, above Ground 4 feet.During the MONTH of July 1884.

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.		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	Barometer. No. —	Attach- ed Ther- mometer	Max. No.	Min. No.	Max. in Sun's rays No. —	Min. on Grass. No. —	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direc- tion.	Force	Direc- tion.	Force				Velocity (0—6), and Direc- tion.	Amount (0—10), and Species.	Velocity (0—6), and Direc- tion.	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†† = 29.367
for Temp. (Col. 2), = 29.459 — 92 = 29.367
Corrected Mean” of Barometer at 9 P.M., minus the Correction†† = 29.379
for Temp. (Col. 4), = 29.474 — 95 = 29.379
Mean at Station, corrected, and at 32°, = 29.373
Correction for height, feet above Mean Sea-level, = 486
Mean, reduced to 32°, and Sea-level, = 29.859
Highest Reading, corrected for Index error, on the 12th, = 29.800
Lowest Do. Do., on the 16th, = 28.900
Difference, or Monthly Range, = 0.900

* 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 “Hygrometrical Deductions” are calculated from Gladstone’s Hygrometrical Tables, Second Edition only.
‡‡‡ While the Diurnal Range is unknown, the Arithmetic Mean of Cols. 9 and 10 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.

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the _____th, = _____
Lowest in Month, corrected for Index errors, on the _____th, = 33.0
Difference, or Monthly Range, = _____
“Corrected Mean” of all the Highest, (Col. 5), = _____
“Corrected Mean” of all the Lowest, (Col. 6), = 47.7
Difference, or Mean Daily Range, = _____
** Calculated Mean Temperature of Month, = _____
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the _____th, = _____
“Corrected Mean,” (Col. 7), of Black Bulb, Max. in Sun, = _____
Lowest at Night, Black Bulb, (corrected for Index errors), on the _____th, = _____
“Corrected Mean,” (Col. 8), of Black Bulb, Min. on grass, = _____
Difference of above Means or Range (“exposed”), = _____

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 55.5
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 54.1
†† Computed Temperature of Dew-Point, = _____
†† Do. Elastic Force of Vapour, = _____
†† Do. Weight of Vapour in a Cubic Foot of Air, = _____
†† Relative Humidity, (Saturation = 100), = _____
RAIN fell on 21 Days; Amount in Inches, = 3.55

WIND.	SUMMARY.									
	Direction.	N	NE	E	SE	S	SW	W	NW	Variable.
A.M.										
P.M.										
Mean.										

Observations made and Return verified by

George H. Smyth

(Signed)

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at *Albany Castle Gardens*, County of *Aberdeen*, in Lat. _____, Long. _____, Distance from Sea *31* miles.Height of Cistern of the Barometer above Mean Sea-level *453.5* feet, above Ground *4* feet.During the MONTH of *August* 188*4*.

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.		Temperature at 1 fathoms.		0—10.								
		Barometer. * No.	Attach- ed Ther- mometer	Barometer. No.	Attach- ed Ther- mometer	Max. No.	Min. No.	Max. in Sun/rays No.	Min. on Grass. No.	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 Direction.	Velocity (0—10), and Direction.	Amount (0—10), and Direction.	No. 1 inches.	No. 2 inches.	No. 3 inches.		Temperature of Well at depth of feet. No.	Temperature at 1 fathoms, and Density.			9 A.M.	9 P.M.
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	9 h. A.M.															
	1	29.700	61	29.600	63	49				62	60	52	54	SW		SW															1			
	2	29.570	61	29.520	62	44				61	60	55	53	SW		SW															2			
	3	29.500	62	29.500	62	46				60	58	45	44	SW		SW															3			
	4	29.700	61	29.500	62	44				61	57	46	44	SW		SW															4			
	5	29.700	61	29.700	64	37				45	42	51	49	W		W															5			
	6	29.700	62	29.700	63	43				57	55	56	54	W		W															6			
	7	29.500	61	29.500	63	47				58	56	52	50	SW		SW															7			
	8	29.775	65	29.700	68	58				57	49	62	60	SW		SW															8			
	9	29.650	68	29.600	72	58				64	58	61	58	SW		SW															9			
	10	29.530	68	29.530	71	59				66	58	62	60	SW		SW															10			
	11	29.530	67	29.530	71	58				68	64	52	55	SW		SW															11			
	12	29.530	70	29.550	70	46				61	58	58	56	W		W			0.41		Ca	Wi									12			
	13	29.520	68	29.450	66	49				62	60	56	53	W		W			0.03		Wi	Wi									13			
	14	29.530	63	29.530	64	47				58	55	53	50	W		W			—		St	Ca									14			
	15	29.600	64	29.600	65	48				55	52	52	49	W		W			0.04		Ca	Ca									15			
	16	29.600	68	29.575	67	39				60	58	54	52	W		W			0.03		Wi	Wi									16			
	17	29.550	68	29.500	66	46				63	60	62	60	W		W			—		Wi	Wi									17			
	18	29.500	66	29.475	69	46				63	61	62	59	SW		SW			—		St	St									18			
	19	29.400	62	29.500	64	51				63	60	54	51	W		W					Ca	Ca									19			
	20	29.600	64	29.530	68	57				65	63	58	55	W		W					Ca	Ca									20			
	21	29.700	62	29.550	62	46				58	55	46	43	SW		SW					Ca	St									21			
	22	29.500	63	29.700	66	41				55	54	58	50	SW		SW					Ca	Ca									22			
	23	29.600	65	29.600	68	50				63	60	60	58	SW		SW					Ca	Ca									23			
	24	29.530	65	29.520	67	45				63	61	61	58	SW		SW			0.01		Ca	Ca									24			
	25	29.530	61	29.700	62	42				50	48	45	43	SW		SW			0.05		Ca	Ca									25			
	26	29.650	61	29.650	64	41				50	48	42	41	W		W			0.04		Wi	Wi									26			
	27	29.600	50	29.500	68	39				48	47	43	41	W		W			0.11		Wi	Wi									27			
	28	29.300	60	29.200	62	32				46	46	42	42	W		SW			0.02		Wi	Wi									28			
	29	29.200	60	29.250	66	35				45	47	42	42	SW		SW			0.05		Wi	Wi									29			
	30	29.300	58	29.300	58	31				49	48	47	47	SW		SW			0.02		Wi	Ca									30			
	31	29.200	60	29.200	60	24				48	47	47	46	SW		SW					Wi	Wi									31			
	Sums.	174 25	105	175 13	160	161				231	155	93	33						0.81															
	Means.	29.562	63.4	29.554	65.2	45.2				57.5	55.0	53.0	51.1																					
	† Total Corrections for Instrumental Errors.	-0.20		-0.20		+1.0																												
	† 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†† = *29.452*
for Temp. (Col. 2), = *29.542* — *0.09*
Corrected Mean† of Barometer at 9 P.M., minus the Correction†† = *29.437*
for Temp. (Col. 4), = *29.534* — *0.097*
Mean at Station, corrected, and at 32°, = *29.444*
Correction for height, feet above Mean Sea-level, = *484*
Mean, reduced to 32°, and Sea-level, = *29.928*
Highest Reading, corrected for Index error, on the 21st, = *29.850*
Lowest Do. Do., on the 29th, = *29.200*
Difference, or Monthly Range, = *0.650*

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

Lowest in Month, corrected for Index errors, on the 30th, = *32.0*

Difference, or Monthly Range, =

“Corrected Mean” of all the Highest, (Col. 5), =

“Corrected Mean” of all the Lowest, (Col. 6), = *462*

Difference, or Mean Daily Range, =

* Calculated Mean Temperature of Month, =

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

“Corrected Mean,” (Col. 7), of Black Bulb, Max. in Sun, =

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

“Corrected Mean,” (Col. 8), of Black Bulb, Min. on grass, =

Difference of above Means or Range (“exposed”), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry

Bulb, (Cols. 9 and 11), = *55.3*

Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols.

10 and 12), = *53.0*

†† Computed Temperature of Dew-Point, =

†† Do. Elastic Force of Vapour, =

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

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

RAIN fell on 11 Days; Amount in Inches, = *0.81*

WIND.		SUMMARY.									
Direction.		N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force.
A.M.											
P.M.											
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.
† Enhancing corrections for both capillarity and Index Errors.
†† The Diurnal Range for Scotland is as yet unknown.
†† Practically, though not absolutely a mean 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.

Observations made and
Return verified by*George H. Smythe*

(Signed)

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at *St. Andrew's Cottage* County of *Aberdeen*, in Lat. _____, Long. _____, Distance from Sea *37* miles.
 Height of Cistern of the Barometer above Mean Sea-level *453.3* feet, above Ground *4* feet. During the MONTH of *September* 188*4*.
 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. No.	Min. No.	Max. in Sun-rays No.	Min. on Grass. No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Dirrec- tion.	Force.	Dirrec- tion.	Force.	Readings of the H. Cup Anemometer: No. —	No. of hours in which it fell.	Amount in inches.	Velocity (0—6), and Direction.	Amount (0—10), and Species.	Velocity (0—6), and Direction.	Amount (0—10), and Species.	No. 8 inches.	No. 12 inches.					No. 22 inches.	
		* No. —		No. —		No.	No.	No.	No.									No. —		No. —												
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°					9 h. A.M.													
	1	29.100	60	29.100	59		41			46	45	49	48	W	45			0.01		9i	9i						overcast & dull all day	1				
	2	29.250	60	29.300	61		32			47	46	48	47	W	45			0.08		9i	9i						"	2				
	3	29.250	60	29.250	58		33			48	46	41	40	W	45			0.05		9i	9i						"	3				
	4	29.200	59	29.200	58		33			49	47	46	46	W	45			0.10		9i	9i						fine a.m. Thunder & rain P.m.	4				
	5	29.100	58	29.100	59		31			54	53	43	40	W	45			0.05		9i	9i						"	5				
	6	29.100	59	29.050	60		42			58	56	46	42	W	45			0.06		9i	9i						windy & some showers by turns	6				
	7	29.100	60	29.000	58		37			59	59	47	47	W	45			0.01		9i	9i						fine a.m. overcast P.m.	7				
	8	29.300	60	29.650	58		HA			58	57	48	47	W	45			0.37		9i	cu						"	8				
	9	29.650	62	29.750	65		48			61	59	55	51	W	45			—		cu	cu						fine a.m. fine P.m.	9				
	10	29.500	65	29.500	62		51			64	61	57	55	W	45			—		st	cu						fine bright day	10				
	11	29.900	65	30.000	65		HA			65	60	58	56	W	45			0.01	sw	cu	st						"	11				
	12	30.100	62	30.150	64		HA			63	52	47	46	sw	45			—		cu	st						"	12				
	13	30.150	61	30.050	62		37			55	57	49	47	W	45			—		cu	st						foggy day	13				
	14	30.000	62	29.950	63		33			48	47	50	48	W	45			—		st	st						"	14				
	15	29.900	62	29.800	61	66	34			47	46	49	48	W	45			0.01	sw	cu	cu						overcast & cool	15				
	16	29.850	62	29.810	62	60	38			51	50	50	50	W	45			—		9i	9i						heavy fog	16				
	17	29.880	62	29.920	63	72	HA			52.2	52	58	55	W	45			0.01		cu	st						"	17				
	18	30.024	63	30.000	62	71	HA			51	55	56	52	sw	45			—		cu	cu						fine day	18				
	19	29.924	60	29.750	62	69	45			53	53	53.3	52	sw	45			0.01		cu	st						"	19				
	20	29.555	61	29.400	62	71	45			52	50	54	52	W	45			—		st	st						fine day with sunshine	20				
	21	29.225	60	29.150	62	69	48			42	42	48	47	W	45			0.10		9i	9i						cloudy & rain	21				
	22	29.108	58	29.200	58	57	42			52	50	45	42	sw	45			—		cu	9i						overcast & cald wind	22				
	23	29.326	58	29.528	59	58	47			48	51	49	47	sw	45					cu	cu						cold day	23				
	24	29.350	59	29.425	59	60	44			50	48	50	48	W	45					cu	cu						"	24				
	25	29.375	59	29.300	59	64	44			53	51	52	47	W	45					cu	9i						"	25				
	26	29.250	58	29.225	59	59	40			51	48	48	44	sw	45			0.03		cu	cu						"	26				
	27	29.277	59	29.714	59	60	45			53	51	48	46	W	45			—		9i	cu						hurricane of wind	27				
	28	29.250	58	29.192	57	59.5	46			51	48	46	45	W	45			—		9i	9i						fine a.m. rainy P.m.	28				
	29	29.300	57	29.550	57	58.5	34			48	48	45	44	W	45			0.15		cu	cu						Bright but cold	29				
	30	29.464	55.5	29.250	55	60	42			51	47	44	43	sw	45			0.02		cu	9i						fine day rain at night	30				
	31																												31			
Sums.		1184	12	1182	15		28			702	29	724	22					1.17														
Means.		29.507	60.2	29.518	60.3	62.9	40.9			52.3	51.0	49.3	47.4																			
† Total Corrections for Instrumental Errors.		-0.20		-0.20																												
† 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	

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.	st.	" stratus.		
f.	" fog.	sc.	" scud.		
fr.	" frost.	s.	" sleet.		
h-fr.	" hoar-frost.	so. ha.	" solar halo.		
h.	" haze.	sq.	" squall.		
h. d.	" heavy dew.	sq.	" squalls.		
h. l.	" hail.	th.	" thunder.		
l.	" lightning.	t. s.	" thunder storm.		
li. cl.	" light clouds.	w.	" wind.		
li. sh.	" light showers.	g.	" gale of wind.		
lu. co.	" lunar corona.				
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 strong
1	Light air	3	Very fresh	6	Violent gale

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction†† for Temp. (Col. 2), = *29.404*
 Corrected Mean" of Barometer at 9 P.M., minus the Correction†† for Temp. (Col. 4), = *29.415*
 Mean at Station, corrected, and at 32°, = *29.409*
 Correction for height, feet above Mean Sea-level, = *489*
 Mean, reduced to 32°, and Sea-level, = *29.898*
 Highest Reading, corrected for Index error, on the *13*th, = *30.150*
 Lowest Do. Do., on the *27*th, = *28.851*
 Difference, or Monthly Range, = *1.299*

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the *3*th, = *72.0*
 Lowest in Month, corrected for Index errors, on the *5*th, = *31.0*
 Difference, or Monthly Range, = *41.0*
 "Corrected Mean" of all the Highest, (Col. 5), = *65.2*
 "Corrected Mean" of all the Lowest, (Col. 6), = *40.9*
 Difference, or Mean Daily Range, = *14.3*
 ** Calculated Mean Temperature of Month, = *53.1*
 S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the _____th, = _____
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = _____
 Lowest at Night, Black Bulb, (corrected for Index errors), on the _____th, = _____
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = _____
 Difference of above Means or Range ("exposed"), = _____

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = *50.8*
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = *49.2*
 †† Computed Temperature of Dew-Point, = _____
 †† Do. Elastic Force of Vapour, = _____
 †† Do. Weight of Vapour in a Cubic Foot of Air, = _____
 †† Relative Humidity, (Saturation = 100), = _____
 RAIN fell on *16* Days; Amount in Inches, = *1.17*

WIND.		SUMMARY.			
Direction.	N NE E SE S SW W NW	Calm or Variable.	Mean Force.	Mean Velocity in miles per day.	
A.M.					
P.M.					
Mean.	0 0 3 1 0 3 18 5 0				

* Each instrument tested at the Office in Edinburgh bears the stamp "S.M.S.," and a number to be entered in the Headings; 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 "Hygrometrical Deductions" are calculated from Glaisher's Hygrometrical Tables, Second Edition only.
 †††† While the Diurnal Range is unknown, the Arithmetic 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.

Observations made and
 Return verified by

George H. Smyth

(Signed)

OBSERVATIONS,

OBSERVATIONS,

Turnips, Fruits, etc., whether plentiful, or in perfection; whether any have suffered from blight, disease, etc. Whether Epizootic disease prevails among cattle; and the Agricultural condition of the district generally

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Abnaye Castle Gardens, County of Aberdeen, in Lat. _____, Long. _____, Distance from Sea 37 miles.
 Height of Cistern of the Barometer above Mean Sea-level 458.3 feet, above Ground 4 feet. During the MONTH of October 1884.
 The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS. Read Daily, at 9 P.M.				HYGROMETER.				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.												
		Barometer. * No.	Attach- ed Ther- mometer	Barometer. No.	Attach- ed Ther- mometer	Max. No.	Min. No.	Max. in sun rays No.	Min. on Grass. No.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Dirac- tion.	Force	Dirac- tion.	Force	No. of hours in which it fell.	Amount in inches.	Velocity (0-6), and Dirac- tion.	Amount (0-10), and Species.	Velocity (0-6), and Dirac- tion.	Amount (0-10), and Species.									
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°						°	°	°	°
	1	29.461	55	29.600	55	59	42			52	49	42	40	W	W					st	cu									Fine day	1	
	2	29.850	56	29.216	57	47	40			50	50	51	50	W	E					cast	ni										2	
	3	29.570	54	29.700	56	56	33			48	47	47	44	W	SW					cu	cu									cold windy day	3	
	4	30.016	56	30.200	55	63	39			57	46	38	37	W	W					cast	cast									splendid total eclipse of moon shooting stars	4	
	5	30.300	58	30.310	58	67	36			53	48	41	39	W	W					cast	cast									fine warm day	5	
	6	30.200	59	30.030	54	66	36			54	57	55	34	W	W			0.01	dew	cast	cu										6	
	7	29.950	49	29.600	53	58	29			35	35	35	35	W	W					cast	cast									Foggy Hail & Sleet at night	7	
	8	29.250	51	29.086	54	59	33			37	36	42	42	W	E			0.42	cast	ni	ni									Overcast fine PM	8	
	9	29.100	44	29.152	54	55	37			39	38	37	37	W	W			0.61	cast	ni	ni									Very rainy day	9	
	10	29.150	48	29.250	49	41	31			34	34	32	30	W	W			0.34	cast	ni	ni									Ground covered with snow sleet & rain	10	
	11	29.540	49	29.400	55	41	31			36	36	40	40	W	W			0.80	cast	ni	ni									Very rainy day thunder & hail	11	
	12	29.530	50	29.616	58	52	32			44	43	37	37	W	W			0.09	cast	ni	ni									Overcast heavy showers	12	
	13	29.580	51	29.480	56	48	35			43	42	42	42	W	W			0.58	cast	ni	ni									Overcast to rainy day	13	
	14	29.560	52	29.650	52	51	34			46	44	34	33	W	W					ni	cu										14	
	15	29.470	52	29.650	54	62	33			45	42	46	42	W	W					ni	cu									fine day	15	
	16	29.600	53	29.550	62	61	34			46	41	49	47	W	W					ni	cu									fine up to night then very strong wind	16	
	17	29.550	62	29.730	64	60	48			46	41	53	51	W	W					ni	ni									High wind all day & overcast	17	
	18	29.800	62	29.800	66	61	45			46	42	50	48	W	W					st	ni									fine day	18	
	19	29.725	65	29.800	65	61	45			48	46	52	49	W	W					cu	cu									fine calm Hurricane PM	19	
	20	29.800	65	29.800	64	59	41			50	48	42	40	W	W					cast	st									fine day	20	
	21	29.650	63	29.750	65	60	42			49	46	45	42	W	W					cast	st									very fine day	21	
	22	29.725	62	29.650	65	54	30			44	33	47	45	W	W					cu	ni									fine day red sunset	22	
	23	29.550	63	29.550	63	52	40			42	40	43	44	W	W					ni	ni									overcast all day	23	
	24	29.550	63	29.660	66	50	32			35	35	44	44	W	W					ni	ni										24	
	25	29.350	63	28.700	65	58	35			47	45	48	46	W	W			0.20	cast	ni	cu									overcast some drizzle	25	
	26	28.600	57	28.850	58	48	33			34	34	37	35	W	W			0.15	cast	ni	ni									Hurricane of wind at night	26	
	27	27.126	52	28.780	58	42	33			35	32	38	37	W	W			0.08	cast	ni	ni									High gale of wind with snow sleet & hail	27	
	28	28.516	56	29.000	63	47	27			40	39	33	30	W	W			0.15	cast	ni	ni									Cold stormy day sleet snow rain	28	
	29	29.300	54	29.360	64	46	27			38	31	40	37	W	W			0.04	cast	cu	cast									Generally fine overcast	29	
	30	29.350	56	29.300	64	57	39			42	40	44	43	W	W					cu	ni									fine day overcast	30	
	31	29.216	60	29.400	65	60	47			58	55	49	48	W	W					cu	ni										overcast very windy	31
	Sums.	1484	13	1537	16	133	120			1125	957	740	295					297														NOTATION USED IN GENERAL REMARKS.
	Means.	29.48	56.2	29.44	59.4	55.2	36.0			43.6	41.6	42.4	41.0																			
	† Total Corrections for Instrumental Errors.	-0.20		-0.20																												
	† 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†† = 29.396
 for Temp. (Col. 2), = 29.469 ... 73 ...
 Corrected Mean" of Barometer at 9 P.M., minus the Correction†† = 29.404
 for Temp. (Col. 4), = 29.484 ... 80 ...
 Mean at Station, corrected, and at 32°, = 29.400
 Correction for height, feet above Mean Sea-level, = 498
 Mean, reduced to 32°, and Sea-level, = 29.898
 Highest Reading, corrected for Index error, on the 5th, = 30.310
 Lowest Do. Do., on the 26th, = 28.600
 Difference, or Monthly Range, = 1.710

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 5th, = 67.0
 Lowest in Month, corrected for Index errors, on the 29th, = 27.0
 Difference, or Monthly Range, = 50.0
 "Corrected Mean" of all the Highest, (Col. 5), = 55.2
 "Corrected Mean" of all the Lowest, (Col. 6), = 36.0
 Difference, or Mean Daily Range, = 19.2
 ** Calculated Mean Temperature of Month, = 45.6
 S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 7th, =
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, =
 Lowest at Night, Black Bulb, (corrected for Index errors), on the 7th, =
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, =
 Difference of above Means or Range ("exposed"), =

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 43.0
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 41.3
 ‡ Computed Temperature of Dew-Point, =
 ‡ Do. Elastic Force of Vapour, =
 ‡ Do. Weight of Vapour in a Cubic Foot of Air, =
 ‡ Relative Humidity, (Saturation = 100), =
 RAIN fell on 12 Days; Amount in Inches, = 2.97

WIND.		SUMMARY.							
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.
A.M.	1	1		4			1	15	9
P.M.	1	2	2	4			13	9	
Mean.	1	2	1	4	0	0	14	9	0

Observations made and
 Return verified by

George H. Smyth

(Signed)

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Obonye Castle County of Aberdeen, in Lat. _____, Long. _____, Distance from Sea 31 miles.
Height of Cistern of the Barometer above Mean Sea-level 455.3 feet, above Ground 4 feet. During the MONTH of December 1884.
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.		Readings of the H. Cup Anemometer. No. —	No. of hours in which it fell.	No. —	Amount in inches.	Velocity (0—6), and Direction.	Amount (0—10), and Species.	Velocity (0—6), and Direction.	Amount (0—10), and Species.	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 No. —	Min. on Grass. No. —	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Direc- tion.	Force	Direc- tion.	Force									No. —							
																										3 inches.					12 inches.	22 inches.	
		inches.	°	inches.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°					°	°	°
1	29.550	46	29.376	47	36	15			29	29	35	33	W	18																Overcast all day	1		
2	29.025	44	28.950	52	39	32			34	33	35	33	S	12																Fine am. drying. Pm.	2		
3	28.500	46	28.666	53.5	41	31			34	34	38	35	SE	12																Fine day	3		
4	28.700	45	28.800	56	40	29			32	32	33	32	SW	12																		4	
5	29.000	45	28.950	52	40	27			33	32	36	35	W	1																	Fine am. rainy pm.	5	
6	28.800	44	28.750	51	46	34			36	35	36	34	SW	12																	Overcast & fog	6	
7	28.870	46	28.800	55	45	34			35.5	34	37	34	SW	12																	Fine day	7	
8	28.900	47	29.000	53	41	33			35	35	36	35	W	12																		8	
9	29.175	46	29.300	53	39.5	31.5			33	34	36	35	W	12																	Fine day	9	
10	28.950	48	28.650	56	46.5	31.5			39	38	41	42	SW	12																	Fine Pm.	10	
11	28.700	49	29.200	52	46	33.5			32	30	41	40	SW	12																	Splendid very pretty coloured clouds	11	
12	29.400	48	29.220	58	41	33			39	38	43	40	SW	12																	Overcast & rain	12	
13	29.250	49	29.328	58	49	33			41	40	89	89	W	12																	Splendid day	13	
14	28.700	48	28.870	54	44	31			35	34	37	37	SW	12																	Heavy rain	14	
15	28.900	49	28.950	53	37	30			34	33	31	30	SW	12																	Heavy snow & fog	15	
16	29.075	50	29.020	53	35	25			30	30	32	32	W	12																	Overcast heavy snow 1 inch on ground	16	
17	28.900	42	29.100	53	36	25			32	32	35	35	W	12																	Heavy clouds the snow	17	
18	28.800	41	28.626	44	39	28			35	34	35	34	W	12																	Fine day	18	
19	28.450	41	28.550	45	40	31			36	34	36	35	W	12																	Fine am. rainy Pm.	19	
20	28.850	42	28.350	45	38	28			36	35	36	34	W	12																	Overcast the P.M. of rain	20	
21	29.700	41	29.900	43	37	27			36	35	29	29	W	12																	Overcast	21	
22	29.850	41	29.726	44	35	18			19	18	20	20	W	12																		Clear frosty day	22
23	29.700	40	29.700	43	35	12			18	17	18	18	W	12																			23
24	29.650	43	29.700	44	40	11			37	36	35	34	W	12																		Fine day	24
25	29.750	44	29.750	45	28	26			32	32	25	25	W	12																			25
26	29.700	45	29.650	43	39	21			35	34	35	35	W	12																			26
27	29.650	42	29.650	47	38	20.5			25	24	36	35	W	12																			27
28	29.600	40	29.530	46	37.5	24			26	25	33	32	W	12																			28
29	29.450	40	29.450	46	39	26			35	35	34	34	SE	12																			29
30	29.450	41	29.526	45	38	32			37	36	33	32	SE	12																			30
31	29.600	42	29.720	46	39	33			34	33	36	35	SE	12																		Overcast	31
Sums.	1219.5	135	1219.3	135	1219.3	135			95	70	131	103																					
Means.	29.180	44.4	29.217	49.3	39.8	27.3			33.1	32.3	34.2	33.3																					
† Total Corrections for Instrumental Errors.	-0.20		-0.20																														
‡ 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			

NOTATION USED IN GENERAL REMARKS.					
a.	denotes aurora.	m.	denotes meteor.		
cl.	" cirrus.	ms.	" meteors.		
cl.-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.	" stratus.		
f.	" fog.	sc.	" scud.		
fr.	" frost.	s.	" sleet.		
h.-fr.	" hoar-frost.	s.	" snow.		
h.	" haze.	so. h.	" solar halo.		
h. d.	" heavy dew.	sq.	" squall.		
hl.	" hail.	sq.	" squalls.		
l.	" lightning.	t.	" thunder.		
li. cl.	" light clouds.	t. s.	" thunder storm.		
li. sh.	" light showers.	w.	" wind.		
li. co.	" lunar corona.				
lu. h.	" lunar halo.	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.
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†† = 29.118
for Temp. (Col. 2), = 29.160 — 42
Corrected Mean” of Barometer at 9 P.M., minus the Correction†† = 29.142
for Temp. (Col. 4), = 29.197 — 55
Mean at Station, corrected, and at 32° = 29.130
Correction for height, feet above Mean Sea-level, = 50.4
Mean, reduced to 32°, and Sea-level, = 29.634
Highest Reading, corrected for Index error, on the 21st th, = 29.900
Lowest Do. Do., on the 19th th, = 28.450
Difference, or Monthly Range, = 1.450

* 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 Glaisher’s Hygrometrical Tables, Second Edition only.
§ While the Diurnal Range is unknown, the Arithmetical Mean of Cols. 9 and 10 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.

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 13th, = 49.0
Lowest in Month, corrected for Index errors, on the 24th, = 11.0
Difference, or Monthly Range, = 38.0
“Corrected Mean” of all the Highest, (Col. 5), = 39.8
“Corrected Mean” of all the Lowest, (Col. 6), = 27.3
Difference, or Mean Daily Range, = 12.5
** Calculated Mean Temperature of Month, = 33.6
S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the 13th, = 50.0
“Corrected Mean,” (Col. 7), of Black Bulb, Max. in Sun, = 49.0
Lowest at Night, Black Bulb, (corrected for Index errors), on the 13th, = 11.0
“Corrected Mean,” (Col. 8), of Black Bulb, Min. on grass, = 27.3
Difference of above Means or Range (“exposed”), = 38.0

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 33.2
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 32.8
†† Computed Temperature of Dew-Point, = 32.8
† Do. Elastic Force of Vapour, = 0.61
† Do. Weight of Vapour in a Cubic Foot of Air, = 0.61
†† Relative Humidity, (Saturation = 100), = 0.61
RAIN fell on 17 Days; Amount in Inches, = 0.61

WIND.		SUMMARY.			
Direction.		N	NE	E	SE
A.M.				14	82.9
P.M.				24	197.6
Mean.		0	0	24	189.7

Observations made and
Return verified by

George S. Smyth

(Signed)

zoonotic diseases among cattle; and the Agricultural condition of the district generally.