

## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Colinton, County of Edinburgh, in Lat. \_\_\_\_\_, Long. \_\_\_\_\_, Distance from Sea \_\_\_\_\_ miles.

Height of Cistern of the Barometer above Mean Sea-Level \_\_\_\_\_ feet, above Ground \_\_\_\_\_ feet.

During the MONTH of April 1892.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS.				HYGROMETER.				Rain.	WIND.				CLOUDS.				THERMOMETERS under Ground.			SEA.	OZONE.	GENERAL REMARKS.		Days of Month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		9 h. A.M.		9 h. P.M.		Protected in Shade, 4 feet above Ground.		Exposed Black Bulbs.		9 h. A.M.		9 h. P.M.			9 h. A.M.		9 h. P.M.		9 A.M.		7 P.M.		9 h. A.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		No.	Barometer.	No.	Barometer.	No.	Max.	Min.	No.	Max.	Min.	No.	Wet bulb.		No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.			Wet bulb.	No.		Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	No.	Wet bulb.	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BAROMETER, "corrected Mean" at 9 A.M., minus the Correction  $\frac{1}{10}$  for Temp. (Col. 2), = \_\_\_\_\_

"Corrected Mean" of Barometer at 9 P.M., minus the Correction  $\frac{1}{10}$  for Temp. (Col. 4), = \_\_\_\_\_

Mean at Station, corrected, and at 32°, = \_\_\_\_\_

Correction for height, feet above Mean Sea-Level, = \_\_\_\_\_

Mean, reduced to 32°, and Sea-level, = \_\_\_\_\_

Highest Reading, corrected for Index error, on the \_\_\_\_\_ th, = \_\_\_\_\_

Lowest Do. Do., on the \_\_\_\_\_ th, = \_\_\_\_\_

Difference, or Monthly Range, = \_\_\_\_\_

S.R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the \_\_\_\_\_ th, = 66.8

Lowest in Month, corrected for Index errors, on the \_\_\_\_\_ th, = 22.0

Difference, or Monthly Range, = 44.8

"Corrected Mean" of all the Highest, (Col. 5), = 50.9

"Corrected Mean" of all the Lowest, (Col. 6), = 33.5

Difference, or Mean Daily Range, = 17.4

\*\* Calculated Mean Temperature of Month, = 42.2

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), = 41.5

Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 38.4

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 13 Days; Amount in Inches, = 1.51

WIND.		SUMMARY.				
Direction.	N	NE	E	SE	S	SW
A.M.	6	3	2	1	5	1
P.M.	6	3	4	1	6	1
Mean.	0	6	4	3	1	8

Observations made and  
Return verified by \_\_\_\_\_

(Signed) \_\_\_\_\_



## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Colinton, County of Midlothian, in Lat. \_\_\_\_\_, Long. \_\_\_\_\_, Distance from Sea \_\_\_\_\_ miles.

Height of Cistern of the Barometer above Mean Sea-Level \_\_\_\_\_ feet, above Ground \_\_\_\_\_ feet.

During the MONTH of May 1892.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	ANEMOMETER.		SELF-REGISTERING THERMOMETERS.		HYGROMETER.		Rain.	WIND.		CLOUDS.		THERMOMETERS under Ground.		SEA.	OZONE.	GENERAL REMARKS.	Days of Month.	
		9 h. A.M.	9 h. P.M.	Protected in Shade, 4 feet above Ground.	Exposed Black Bulb, 4 feet above Ground.	9 h. A.M.	9 h. P.M.		9 h. A.M.	6 h. P.M.	9 h. A.M.	6 h. P.M.	9 h. A.M.	6 h. P.M.					
	1	29.550	53	29.510	57.5	58	37	93	36.5	51	45	41.5	36.5					Midday in bloom	1
	2	29.550	55	29.530	57.5	58.5	32	95	29.5	47	43	42	41					Steady with cloud at 5.45	2
	3	29.630	54	29.600	51	47	40	74	37	42	39	40	37					Set at 1/10 of horizon	3
	4	29.620	49	29.650	49	47	37	78	36.5	40.5	37	38	37					Set at 1/10 of horizon	4
	5	29.600	51	29.690	49.5	52	34	91	33	47	42	38	36					Set at 1/10 of horizon	5
	6	29.500	50	29.710	50	55.5	30	96	28.5	42	36	43.5	38					Set at 1/10 of horizon	6
	7	29.600	51	29.640	55	57	39	74	37	48	42	43	42					Set at 1/10 of horizon	7
	8	29.660	54	29.675	57.5	56	39	96	40	44	42	47.5	43					Set at 1/10 of horizon	8
	9	29.710	55.5	29.725	56.5	64	43	92	41	54	47	50	45					Set at 1/10 of horizon	9
	10	29.820	56	29.900	57	67	37	112	35	52	47.5	43	40					Set at 1/10 of horizon	10
	11	29.950	55	30.000	58	55	36	100	36	48	43	45	41					Set at 1/10 of horizon	11
	12	30.000	55	29.835	56	56.5	30	103	28.5	50	45	51.5	48.5					Set at 1/10 of horizon	12
	13	29.700	56	29.580	57	59	49	74	45	52.5	50	55.5	54					Set at 1/10 of horizon	13
	14	29.500	57	29.500	57	58	46	91	43	51	47	45	44					Set at 1/10 of horizon	14
	15	29.270	57	29.230	57.5	60.5	45	100	43	52	47.5	46	43					Set at 1/10 of horizon	15
	16	29.000	56	29.190	58	54	43	85	40	47.5	45.5	46	43					Set at 1/10 of horizon	16
	17	29.490	58	29.580	58	55	41	100	38	47	43	44	41					Set at 1/10 of horizon	17
	18	29.490	56.5	29.425	56	55	37	61	35	46.5	44.5	45	43					Set at 1/10 of horizon	18
	19	29.450	55	29.350	55	57	41	95	40	51	46	50	48					Set at 1/10 of horizon	19
	20	29.220	55	29.550	58	56	39	78.5	40	52	48	40	38.5					Set at 1/10 of horizon	20
	21	29.500	56	29.450	55.5	53	34	78	32.5	46	43	40	38					Set at 1/10 of horizon	21
	22	29.550	54	29.500	59	51	36	80	36	44	40.5	41	40.5					Set at 1/10 of horizon	22
	23	29.350	56	29.450	60	56	39	74	40.5	50	48.5	52	51					Set at 1/10 of horizon	23
	24	29.280	59	29.400	59	63.5	53	74	50	60	53.5	54	49					Set at 1/10 of horizon	24
	25	29.330	58	29.370	59.5	64.5	47.5	78.5	47.5	56	53	55.5	52					Set at 1/10 of horizon	25
	26	29.450	60.5	29.440	60	63.5	47	101.5	46	59.5	54	56	54.5					Set at 1/10 of horizon	26
	27	29.390	60	29.500	60.5	67	48	95.5	48.5	60	58.5	56.5	52					Set at 1/10 of horizon	27
	28	29.500	60	29.325	60	57	46	66	46	49.5	49	47.5	47.5					Set at 1/10 of horizon	28
	29	29.315	59	29.390	60	63	47.5	90.5	46	54	49.5	54	50					Set at 1/10 of horizon	29
	30	29.400	58.5	Omitted		61	49	95	47.5	58.5	54.5	47	42					Set at 1/10 of horizon	30
	31	29.440	60	29.290	61	70	48	98.5	46	62	57	58	54					Set at 1/10 of horizon	31
Sums.						153	171	2113	155	123	165	124	133						
Means.						57.941	0.87	639.7	50.5	465	470	44.2							
+ Total Corrections for Instrumental Errors.																			
+ 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

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

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  $\ddagger$  = \_\_\_\_\_  
for Temp. (Col. 2), = \_\_\_\_\_  
"Corrected Mean" of Barometer at 9 P.M., minus the Correction  $\ddagger$  = \_\_\_\_\_  
for Temp. (Col. 4), = \_\_\_\_\_  
Mean at Station, corrected, and at 32°, = \_\_\_\_\_  
Correction for height, feet above Mean Sea-level, = \_\_\_\_\_  
Mean, reduced to 32°, and Sea-level, = \_\_\_\_\_  
Highest Reading, corrected for Index error, on the \_\_\_\_\_ th, = \_\_\_\_\_  
Lowest Do. Do., on the \_\_\_\_\_ th, = \_\_\_\_\_  
Difference, or Monthly Range, = \_\_\_\_\_

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the \_\_\_\_\_ th, = 70.0  
Lowest in Month, corrected for Index errors, on the \_\_\_\_\_ th, = 30.0  
Difference, or Monthly Range, = 40.0  
"Corrected Mean" of all the Highest, (Col. 5), = 57.9  
"Corrected Mean" of all the Lowest, (Col. 6), = 41.0  
Difference, or Mean Daily Range, = 16.9  
\*\* Calculated Mean Temperature of Month, = 49.4  
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), = 48.8  
Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 45.4  
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 19 Days; Amount in Inches, = 2.61

WIND.		SUMMARY.				
Direction.		N	NE	E	SE	S
A.M.		4	2	1	3	2
P.M.		2	3	1	3	3
Mean.		3	3	1	3	3

Observations made and  
Return verified byJames McNamee  
Westgate Villa, Colinton.

(Signed)



# SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at *Portguth Vella, North County of Antrim*, in Lat. \_\_\_\_\_, Long. \_\_\_\_\_, Distance from Sea \_\_\_\_\_ miles.  
 Height of Cistern of the Barometer above Mean Sea-Level \_\_\_\_\_ feet, above Ground \_\_\_\_\_ feet.  
 During the MONTH of *June* 189*2*  
 The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.				SELF-REGISTERING THERMOMETERS.				HYGROMETER.				Rain.	WIND.				CLOUDS.				SUNSHINE.	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.			As to occurrence of Thunder, Lightning, Storms, Hail, Meteors, Remarkable Depression or Elevation of Barometer, Prevalent Diseases, etc.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Barometer.	Attached Thermometer.	Barometer.	Attached Thermometer.	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.		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  $\frac{1}{10}$  for Temp. (Col. 2), = \_\_\_\_\_  
 "Corrected Mean" of Barometer at 9 P.M., minus the Correction  $\frac{1}{10}$  for Temp. (Col. 4), = \_\_\_\_\_  
 Mean at Station, corrected, and at 32°, = \_\_\_\_\_  
 Correction for height, feet above Mean Sea-level, = \_\_\_\_\_  
 Mean, reduced to 32°, and Sea-level, = \_\_\_\_\_  
 Highest Reading, corrected for Index error, on the \_\_\_\_\_ th, = \_\_\_\_\_  
 Lowest Do. Do., on the \_\_\_\_\_ th, = \_\_\_\_\_  
 Difference, or Monthly Range, = \_\_\_\_\_

S.-R. THERMOMETER, (in shade, etc.), Highest in Month, (corrected for Index Errors), on the 9 th, = 80.0  
 Lowest in Month, corrected for Index errors, on the 14 th, = 33.0  
 Difference, or Monthly Range, = 47.0  
 "Corrected Mean" of all the Highest, (Col. 5), = 61.0  
 "Corrected Mean" of all the Lowest, (Col. 6), = 44.1  
 Difference, or Mean Daily Range, = 16.9  
 \*\* Calculated Mean Temperature of Month, = 52.6  
 S.-R. THERMOMETER, Black Bulb in Sun, Highest, (corrected for Index Errors), on the \_\_\_\_\_ th, = \_\_\_\_\_  
 "Corrected Mean," (Col. 7), of Black Bulb, Max. in Sun, = \_\_\_\_\_  
 Lowest at Night, Black Bulb (corrected for Index errors), on the \_\_\_\_\_ th, = \_\_\_\_\_  
 "Corrected Mean," (Col. 8), of Black Bulb, Min. on grass, = \_\_\_\_\_  
 Difference of above means or range ("exposed"), = \_\_\_\_\_

HYGROMETER, Mean (corrected) A.M. and P.M. Reading of Dry Bulb, (Cols. 9 and 11), = 52.3  
 Mean (corrected) A.M. and P.M. Reading of Wet Bulb, (Cols. 10 and 12), = 48.8  
 # 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 19 Days; Amount in Inches, = 3.38  
 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 7 2 3 3 11 2 0.95  
 P.M. 1 4 8 1 4 9 2 0.97  
 Mean. 1 2 2.8 1 2 4 10 2 0.96  
 092

\* 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 capillary 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.

Observations made and Return verified by *James McManus*  
*Portguth Vella*  
*Colinton*

(Signed) \_\_\_\_\_







## SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Colinton, County of Midlothian, in Lat. \_\_\_\_\_, Long. \_\_\_\_\_, Distance from Sea \_\_\_\_\_ miles.

Height of Cistern of the Barometer above Mean Sea-Level \_\_\_\_\_ feet, above Ground \_\_\_\_\_ feet.

During the MONTH of August 1892.

The Hours of Observation are of Greenwich Time.

ELECTRICITY.	Days of Month.	BAROMETER.		SELF-REGISTERING THERMOMETERS, Read Daily, at 9 P.M.				HYGROMETER.				Rain.		WIND.				CLOUDS.				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.	Max. in Min. on Sun's rays.	Min. on Grass.	Dry No.	Wet No.	9 h. A.M.	9 h. P.M.	No. of hours in which it fell.	Amount in inches.	9 h. A.M.	9 h. P.M.	Readings of the H. Cup Anemometer.	9 A.M.	9 P.M.	Velocity (0-6) and Direction.	Amount (0-10) and Species.	Velocity (0-6) and Direction.	Amount (0-10) and Species.	No. 1.	No. 2.					No. 3.	Temperature of Well at depth of feet.	Temperature at 1 foot, and Density.
	1	29.610	62.3	29.790	62	62	50	84.5	49.5	61	57	51	49	.03	NW 1.	28	1.	brt	0.5	2	3	Cloudy most of day & fine after sunset.								1	
	2	29.760	61.	29.710	61.5	61.5	47.5	113.5	48	54	52	57	54	.014	NW 0.5	NW 1.5		brt	1.5	2	5	Slight drizzle 5-6 A.M. - light buff & drizzle clouds succeeded by 4.30 P.M.								2	
	3	29.650	62	29.620	61.5	61.5	52	109	50	62	55	53	50	—	NW 1.	NW 1.		brt	1.5	2	10	Slight buff succeeded by light rain - heavy showers 7-8 P.M.								3	
	4	29.701	61.5	29.650	62	64	41	119	40	56	49	53	49.5	.02	NW 1.	NW 1.		brt	1.5	2	10	heavy cloud								4	
	5	29.550	61	29.400	62	66	49.5	86.5	50	55	51.5	53	51	—	—	1.5		brt	1.5	2	5	Spruce mixed light shower in morning heavy showers 4-8 P.M.								5	
	6	29.350	62	29.500	61	62	48	94.5	46	57	52	52.5	47.5	.15	W 1.5	NW 1.5		brt	1.5	2	10	Slight copper wind driven clouds.								6	
	7	29.590	61.3	29.560	61.5	65.5	44.3	109	43.3	57	51	54.8	49.8	—	NW 1.5	NW 1.		brt	1.5	2	12	Slight copper & drizzle showers 9.30 P.M.								7	
	8	29.480	61	29.570	61.5	55.5	45.5	54	45.5	45.5	48.5	48	46	.76	SW 1.5	SW 1.5		brt	1.5	2	12	heavy rain till 7 P.M.								8	
	9	29.700	59.5	29.801	58	58	42	72	40.5	brt	43	42		.43	SW 1.5	SW 1.5		brt	1.5	2	7	Copper at 2 P.M.								9	
	10	29.820	60	29.810	59	61	38	95	38	57	51	51.5	49	—	NW 1.5	SW 1.5		brt	1.5	2	8									10	
	11	29.700	60	29.660	60.5	65	43	82.5	38.5	57	52	56	54	—	NW 1.5	SW 1.5		brt	1.5	2	1	Shower in afternoon sun broke through at 12.30. Slight red.								11	
	12	29.600	61	29.400	61.5	64.5	53	92.5	52	65	60	59.5	55.5	.05	SW 1.5	SW 1.5		brt	1.5	2	8	sun pale white & drizzle till 8-10 P.M.								12	
	13	29.200	62	29.150	61.5	68	54	101	51.5	59.5	57	55.5	52	.09	NW 1.5	SW 1.5		brt	1.5	2	6	Shower with drizzle till 4 P.M. 4 P.M. of drizzle.								13	
	14	29.170	62	29.130	64	67	55	89	51	62.5	56.5	56	53	.23	NW 1.5	SW 1.5		brt	1.5	2	9	Spruce white & drizzle till 4 P.M. 4 P.M. of drizzle.								14	
	15	brt	29.470	62	65	51	99	50.5	brt	54	51			.51	brt	NW 1.5		brt	1.5	2	6	Very wet in early morning heavy during day. Slight reddish buff.								15	
	16	29.700	62	29.550	62.5	65	50	91	49	61	55	54.5	52.5	—	SW 0.5	NW 1.		brt	1.5	2	8	Spruce mixed with drizzle till 4 P.M. 4 P.M. of drizzle.								16	
	17	29.550	62	29.630	62	65	48	111	47	58.5	55.3	51	50	.17	NW 1.	Calm		brt	1.5	2	8	to copper buff. Showers at 10.20 P.M.								17	
	18	29.550	61	29.580	60	55	45	56	48	52	51	52	51.3	.03	SW 0.5	SW 0.5		brt	1.5	2	—	Rain nearly all day.								18	
	19	29.490	59.5	29.490	59	64	50	94	49	55	53.3	52.5	49.7	.15	NW 0.5	NW 1.5		brt	1.5	2	4	Slight red till sunset.								19	
	20	29.560	59	29.620	60.3	68.5	43.3	112	37	58	53	58	54	—	NW 0.5	W 1.5		brt	1.5	2	10	Spruce indistinct till sunset behind a cloud pale from 9 P.M. to 7 A.M. of 21 <sup>st</sup> .								20	
	21	29.610	61.5	29.700	62	69	53	85	56	64.5	61	63	59	.02	SW 2.	W 2.		brt	1.5	2	8	Spruce white succeeded by buff & copper clouds till behind a cloud.								21	
	22	29.700	63	29.573	64	71.5	51	111	54	65.3	61.3	56	54	—	SW 0.5	Calm		brt	1.5	2	8	Very warm & oppressive till all day.								22	
	23	29.490	64.5	29.530	65	68.5	52	102.5	50.3	64	60.5	58	57.5	—	Calm	SW 1.		brt	1.5	2	8	Not so warm sun never a cloud. Rose at 4 A.M. overcast at 23 <sup>rd</sup> .								23	
	24	29.490	64.5	29.400	64	64	54	81	54.5	61.3	61.8	58	56	.12	SW 0.5	W 1.5		brt	1.5	2	6	Showers at 11 P.M.								24	
	25	29.475	63	29.440	63	66	50.5	106	44.5	57.5	52.5	52	49	—	NW 1.5	NW 1.5		brt	1.5	2	8	Spruce over a cloud fine all day.								25	
	26	29.390	62.5	29.390	63	65	48	91	48	57.5	50.5	53	50	—	NW 1.5	NW 1.5		brt	1.5	2	8	Fair all day.								26	
	27	29.210	62	29.160	61	64	47	—	46	57.5	52	49.5	47.5	.14	NW 2.	NW 1.5		brt	1.5	2	9	Spruce low & indistinct. Red buff succeeded by buff.								27	
	28	29.190	61	29.350	64.5	60.6	45.3	102.3	44	54.5	50	47	44.3	—	NW 1.5	SW 1.5		brt	1.5	2	6	So Slight red for one third of horizon.								28	
	29	29.420	63	29.290	62.5	55.5	37	91.5	36.5	50.5	47	48.5	48	.06	SW 1.	SW 1.5		brt	1.5	2	4	So								29	
	30	29.070	62	29.890	61	61	47	75	47	56.5	56	67	54.5	.51	SW 0.5	SW 0.5		brt	1.5	2	1	Very soft & hazy all day showers at 4 A.M.								30	
	31	29.000	60	29.230	60.5	57.5	50.5	56.5	50	54.5	54	52	50	.10	NW 0.5	SW 1.5		brt	1.5	2	—	Very heavy rain at 12. Ann of 20 <sup>th</sup> + 9.30 Ann of 31 <sup>st</sup> - Slight red.								31	
Sums.																															
Means.																															
+ Total Corrections for Instrumental Errors.																															
+ Corrections for Diurnal Range.																															
"Corrected Means."																															
No. of Columns.		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.	confined heavy rain.
d.	depos.	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.
h.	hail.	sq.	squalls.
l.	lightning.	t.	thunder.
li. cl.	light clouds.	t. s.	thunder-storm.
li. sh.	light showers.	w.	wind.
lu. co.	lunar corona.	g.	gale of wind.
lu. ha.	lunar halo.		

TABLE FOR ESTIMATING FORCE OF WIND.

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

BAROMETER, "corrected Mean" at 9 A.M., minus the Correction  $\uparrow\uparrow$  = \_\_\_\_\_  
for Temp. (Col. 2), = \_\_\_\_\_"Corrected Mean" of Barometer at 9 P.M., minus the Correction  $\uparrow\uparrow$  = \_\_\_\_\_  
for Temp. (Col. 4), = \_\_\_\_\_

Mean at Station, corrected, and at 32°, = \_\_\_\_\_

Correction for height, feet above Mean Sea-level, = \_\_\_\_\_

Mean, reduced to 32°, and Sea-level, = \_\_\_\_\_

Highest Reading, corrected for Index error, on the th, = \_\_\_\_\_

Lowest Do. Do., on the th, = \_\_\_\_\_

Difference, or Monthly Range, = \_\_\_\_\_

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, = \_\_\_\_\_

Difference, or Monthly Range, = \_\_\_\_\_

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

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

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), = \_\_\_\_\_

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

# 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 Days; Amount in Inches, = \_\_\_\_\_

WIND.		SUMMARY.			
Direction.	N	NE	E	SE	S
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.

† 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 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 byJames Hume  
Colinton

(Signed)





INSTRUCTIONS

FOR TAKING METEOROLOGICAL OBSERVATIONS,

WITH REMARKS ON THE USE OF INSTRUMENTS.

ONE of the chief objects that the SCOTTISH METEOROLOGICAL SOCIETY proposed to itself when the Society was established in 1855, was to secure PRACTICALITY in the system of observation pursued at all its Stations. Uniformity in the observations is absolutely necessary to justify the publication of Monthly Results from different observations, it being found that differences between the Returns from two Stations, so very considerable as to render them quite incomparable, may arise from dissimilarity in the position or shelter of instruments, different hours of observation, or even from the use of differently constructed instruments. It is therefore hoped, that those who kindly furnish Reports to the Society will, by a scrupulous attention to the following Directions, secure for their Monthly Returns an accuracy and value commensurate with the labour and pains involved in making them; and, for the Tables published by the Society, an entire comparableness among the several Returns, without which the Society's Reports must inevitably fail in achieving one of the main objects of Meteorological Observation.

The Council recommend that Observations be made precisely at 9 A.M. and 9 P.M. (Greenwich or Railway Time only), as specified in the following remarks, or at the top of the hour of the columns of the Schedule. It is hoped that the utmost punctuality in the time of reading the instruments will be observed. Observers, in some few cases, may find this impossible; in such instances, they are specially required to make opposite every reading the time at which it was taken, and at 9 A.M. or 9 P.M. Weather-Glasses. As the barometer is a delicate instrument, and is subject to slight variations of atmospheric pressure, are not barometers fitted for scientific purposes. No Barometer should be used for Meteorological Observation that is not supplied with some means of adjustment or compensation which will secure that the height of the mercury in the tube is accurately measured from the fixed surface of the mercury in the cistern.

The Barometer in which the error arising from the fluctuating surface of the mercury in the cistern is entirely got rid of is FORTIN'S Barometer; the arrangement consisting in applying pressure by means of a screw to the bottom of the cistern, which is made of flexible leather, thus raising or depressing the surface till it just meets the ivory point which forms the zero point of the fixed scale.

The Barometer originally constructed by Mr. Adie of London, and usually called the Board of Trade Barometer, has the great convenience of requiring no adjustment of the cistern. Its scale-inches are not true inches, but so much shorter as to compensate the error that would otherwise arise from the fluctuations of the surface of mercury in the cistern. This is an excellent Barometer for ordinary Observers, inasmuch as it entirely eliminates the error of observation likely to arise in not a few cases in setting the instrument to the zero point of the fixed scale when the light is not good. To show the accuracy with which these Barometers are made, it may be stated, that one was compared, during a whole year, with the Society's Standard Barometer, particular care being given to make the comparison when atmospheric pressure was rising or falling very rapidly, with the result that none of the readings differed from those of the Standard more than 0.003 inch.

A modification of Fortin's Barometer is used at a number of the Society's Stations, by which the inconvenience of the zero point of the surface of the mercury is indicated by a ivory point, which is seen passing freely through the fit and cases ought by the adjusting screw, to form one straight line with the ivory frame, the surface of the mercury being then at the exact height from which the scale is reckoned. In taking an observation, this preliminary setting must be made with scrupulous accuracy; as a slight error here will vitiate the readings with the vernier.

It is absolutely necessary that the Barometer which is to be used shall have been compared with a Standard Barometer. The Barometer should be suspended in as good a light as can be secured, and to facilitate the reading, a piece of white paper may be put behind the tube. It must be hung truly perpendicular, and exposed to neither the sun's direct rays nor the heat of a fire, and must not be hung against a wall heated by a fire. The object being to secure that the whole instrument, including the brass fittings, contained mercury, and the attached Thermometer, shall be, when read, at one uniform temperature, it is evident that the best position is that which is least liable to sudden changes of temperature.

In taking an Observation, the Attached Thermometer is first noted; the tube must then be gently tapped, and the cistern-adjustment carefully made. The eye, by raising and lowering it, must be brought into the plane of the back and front of the index—usually the lower 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 heat from the observer's hands and person from affecting the mercury. The use of a lens will facilitate an accurate adjustment and reading of the Barometer. A mistake not infrequently made by those beginning to observe, consisting in setting the edge of the vernier to the level of the clear surface of the mercury, instead of in direct contact with the glass tube, must be carefully avoided. The eye must be steadily maintained, and the Barometer are arranged in the following manner, and 0.050 in.; that is to say, instead of 29.365 inches, 29.365 inches, 29.365 inches, or 29.815 inches. Experience having shown that even the very best Observers make these mistakes, particular attention is directed to the matter.

When a Barometer having adjustable surfaces has to be removed from its fastenings, the ivory peg must first be screwed so as to form a right plug to the cistern, thus preventing the escape of the mercury. Then screw up the mercury not quite to the top of the tube, but to within a quarter of an inch of it, and take down the instrument; it should then be carried with the cistern uppermost. Before suspending 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 dull tap is heard, there is air in the tube, which must be got rid of.

As Barometers are liable to be deranged by the introduction of air into their tubes, on removal from place to place, or in being roughly handled, it may be useful to Observers to know how 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 mercury to about half an inch from the top of the tube; and having slowly inverted the instrument, place the top of it on a yielding 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 escape. Since there is the weight of two atmospheres—the pressure of the cistern—on the Barometer, and the air outside the pressure of the cistern may be inside the tube, it is hardly a tedious operation to get it wholly expelled. After repeated use, the Barometer is generally accomplished, and the top 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 unscrewing the float of the cistern, for, if this be not attended to, the mercury will flow out, and the instrument be seriously damaged.

OBSERVATIONS,

water, in cases where the observations cannot be taken daily, the observation may be made on the 5th, 15th, and 25th of each month. When convenient, extra Sea Observations might be taken for other and greater depths, noting at the same time the Temperature of the Air, and the Hour of Observation. It is also very desirable that observations on the daily Maxima and Minima by Thermometers continuously immersed, be instituted at points along the coast, by the method proposed by Mr. Stevenson, and already commenced at Peterhead and Liverpool.

The Temperature of the water at the bottom of Wells ought, when practicable, to be taken, both the depth of the temperature, and the nature of the water being noted.

Mention what Tides are used, Sediment's or Mollus's, etc. The Part of the day should be noted by a pin to a board in the thermometer, and the nature of the wind registered as in the column of the wind.

It is desired that the indications of the wind, in connection with the force and direction of the wind at the time of observation, in the following manner—thus g.w. as an Ozene entry in the schedule will indicate that the Ozene pressure is failed as 3 on the scale, that the wind is from the N.W., and that its force on the scale 0-5 is 4, or blowing fresh.

Too much importance cannot be attached to the electric condition of the atmosphere, here in connection with terrestrial, meteorological phenomena generally. A proper Electrometer is, in truth, necessary to every complete meteorological observatory.

The Remarks column is unavoidably too narrow. Some of the most valuable Observations that can be taken are those for which no rules can be given nor hours assigned. The use of contractions ought, therefore, to be taken every advantage of, and a list of such as are in general use is given at the foot of the column. Besides special and extraordinary Observations, great prominence ought to be given in this column to Precipitation, differences in character, colour, velocity, and direction between the Lower and Upper Strata of clouds, the Colour of the Sky, etc. Remarks ought to be made on the occurrence of Meteors, Aurora Borealis, remarkable depressions, elevations, and fluctuations of the Barometer, Thunder-Storms, and remarkable falls of Snow, Hail, or Rain, the Hour of Storms of Wind commencing, attaining their maximum, and ending, as well as such Notes on Storms as have been hinted at above. When lofty hills are in the vicinity of a Station, the Height of Clouds and of the Snow-line in winter should be recorded.

By the use of abbreviations the state of the weather at 9 A.M. and 9 P.M. should be registered, either in two columns, otherwise uncoupled, or ruled for the purpose from the column of 'Remarks.'

Observations in connection with the Periodic Return of the Observations in Seasons, possess not only great scientific value, but connection with a considerable importance in connection with the various branches of Agriculture, Horticulture, and Natural History. The Council would direct the special attention of Observers to the registration of such phenomena, and that the published Summaries may fully represent the whole of Scotland.

Observations ought to be confined to individual trees and shrubs, so as to be able to be made, and in the case of crops, to specify the increased time year to year on a selected piece of land and farm.

The Annual Table published yearly in the Society's Journal will indicate the species of plants and animals to which special attention is more particularly directed.

The Council recommend Observers, before purchasing new instruments, and in repairing old ones, to communicate with the Meteorological Secretary, in order that every instrument may be examined and improved before being used; and they consider it necessary that he should have full power to reject any instrument which, on being presented for comparison, does not afford him satisfaction.

(By Order)

EDINBURGH.

122 George Street,

Scottish Meteorological Society,

To the SECRETARY

Johnston

Sept 1892.

BOOK POST.

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Johnston

SC  
W. L. Christian

Methodman

Distance from Se  
Chen

189 2.

W. C. C. C.

NOTATION USED IN GENERAL REMARKS.					
a.	<i>denotes aurora.</i>	m.	<i>denotes meteor.</i>		
ci.	<i>cirrus.</i>	ms.	<i>micro.</i>		
ci.-cu.	<i>cirro-cumulus.</i>	mh.	<i>mini.</i>		
ci.-s.	<i>cirro-stratus.</i>	r.	<i>rain.</i>		
cu.	<i>cumulus.</i>	h. r.	<i>heavy rain.</i>		
cu.-s.	<i>cumulo-stratus.</i>	c. h. r.	<i>continued heavy rain.</i>		
d.	<i>dew.</i>	s.	<i>stratus.</i>		
f.	<i>fog.</i>	sc.	<i>scud.</i>		
fr.	<i> frost.</i>	s.	<i>sleet.</i>		
h. fr.	<i>hoar-frost.</i>	so.	<i>snow.</i>		
h.	<i>haze.</i>	so. ha.	<i>solar halo.</i>		
h. d.	<i>heavy dew.</i>	s.	<i>squall.</i>		
hl.	<i>hail.</i>	sgs.	<i>squalls.</i>		
hl.	<i>lightning.</i>	t.	<i>thunder.</i>		
l. cl.	<i>light clouds.</i>	td.	<i>thunder-storm.</i>		
l. sh.	<i>light showers.</i>	v.	<i>wind.</i>		
l. co.	<i>lunar corona.</i>	g.	<i>gale of wind.</i>		
l. ha.	<i>lunar halo.</i>				

  

TABLE FOR ESTIMATING FORCE OF WIND.					
Estimated Force, C-6.	Common Designation.	Estimated Force, 0-5.	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

**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, ..... =

Difference, or **Monthly Range,** ..... =

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

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

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

**\*\* Calculated Mean Temperature** of Month, ..... =

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**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”), ..... =

[illegible]

James Harvey Blodgett

(Signed).

# OBSERVATIONS

As Barometer tubes are liable to be damaged by the introduction of air into their tubes, on removal from place to place, or in being roughly handled, it may be useful to Observers to know that the ivory peg might be used to prevent the air from entering the tube, as the ivory peg fits so as to prevent the escape of the mercury, and having the mercury in such a position that the top of it on a yielding surface will reach the bottom, place the top of it on a yielding surface, and the air will not get into the cistern with the mercury. The hand so as to induce the air to ascend through the vacuum to the cistern, whence it may escape.

Barometers of two atmospheres—the pressure of the mercury in the weight, and the air outside—pressing on any air that may be inside the tube, it is usually a tedious operation to get it wholly expelled. After repeated trials, however, it is generally accomplished, and the clear metallic sound of the mercury, when gently struck against the top 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 unscrewing the float of the cistern, for, if this be not attended to the mercury will flow out, and the instrument be seriously damaged.

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

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 continually taken by a properly constructed apparatus, from boats, or, if this be impracticable, from the ends of piers and rocks round the coast, where it is not influenced by that of river water, and as little as possible by currents sweeping along the coast, and thus ascertaining the temperature of the land, either greatly heated by the sun or cooled by nocturnal radiation. At or near the mouth of high

The Council recommend Observers, before purchasing new instruments, and in repairing old ones, to communicate with the Meteorological Secretary, in order that every instrument may be examined and improved before being used; and they consider it necessary that he should have full power to reject any instrument which, in being presented for comparison, does not afford him satisfaction.

(By Order) A. B.

OBSERVATIONS		FOREST TREES.		R	
		Alder,	.	.	.
		Ash,	.	.	.
		Beech,	.	.	.
		Birch,	.	.	.
		Elm,	.	.	.
		Larch,	.	.	.
		Line,	.	.	.
		Oak,	.	.	.
		Sycamore or Plane,	.	.	.

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 zootic disease prevails among cattle; and the Agricultural condition of the district generally.

POISON TREES.	Flower.	In Leaf.	Leaf Apend.	In Leaf.	Dried or Leaves.	GROPS.	Bartley,	Bare or Bigg.	Oats,	Wheat,	Beans,	Pease,	Potatoes,	Turpins,	Rye Grass,
Alder,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Beech,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Birch,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Elm,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Larch,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lime,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Oak,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sycamore or Plane,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

  

SHRUBS, ETC.	First in Blossom.	FRUITS.	First in Blossom.	Fruit Ripe generally.	NEGATATORY BIRDS.	First Arrival.	Departure.
Barberry,	.	Apple,	.	.	Cuckoo,	.	.
Boutree or Elder,	.	Black Currant,	.	.	Cutew,	.	.
Broom,	.	Cherry,	.	.	Horse-Swallow,	.	.
Hazel,	.	Cean,	.	.	Lapwing,	.	.
Hawthorn,	.	Gooseberry,	.	.	Plover,	.	.
Holly,	.	Peach,	.	.	Sand-Martin,	.	.
Laburnum,	.	Pear,	.	.	Starling,	.	.
Lilac,	.	Plum,	.	.	Swan,	.	.
Mazeron,	.	Strawberry,	.	.	Rail or Corn Crake,	.	.
Mountain Ash or Rowan,	.	.	.	.	.	.	.
Red Flowering Currant,	.	.	.	.	.	.	.
Rhododendron Ponticum,	.	.	.	.	.	.	.
Whin,	.	.	.	.	.	.	.

OBSERVATIONS IN CONNECTION WITH THE PERIODICAL RETURN OF THE SEASONS.

EDINBURGH. December 1891.

(By Order)

The Hours of Observation are of Greenwich Time.

[illegible]

**BAROMETER**, "corrected Mean" at 9 A.M., *minus* the Correction †† } = \_\_\_\_\_  
for Temp. (Col. 2), = ..... } \_\_\_\_\_

"Corrected Mean" of Barometer at 9 P.M., *minus* the Correction †† } =  
 for Temp. (Col. 4), = ..... }

Mean at Station, corrected, and at 32°,..... =

Correction for height,            feet above Mean Sea-level,..... =

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

Highest Reading, corrected for Index error, on the th,..... =                     

Lowest Do. Do., on the th,..... =

Difference, or **Monthly Range**, ..... = .....

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, ..... =

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

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

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

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), ..... =

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

## Computed Temperature of Dew-Point, ..... =

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

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

‡ Relative Humidity (Saturation = 100), ..... =

fell on Days; Amount in Inches, ..... =

WIND. SUMMARY.

Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable	M
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[illegible][illegible][illegible]

1. The first part of the document is a header section containing the title "The Role of the Teacher in the 21st Century" and the author's name "Dr. Jane Smith".

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SCO  
Columbiana

Wolfeboro

er above Mean Sea-Level

8

[illegible]

BAROMETER, "corrected Mean" at 9 A.M., <i>minus</i> the Correction $\uparrow\uparrow$	=	_____
for Temp. (Col. 2), =	_____	_____
"Corrected Mean" of Barometer at 9 P.M., <i>minus</i> the Correction $\uparrow\uparrow$	=	_____
for Temp. (Col. 4), =	_____	_____
Mean at Station, corrected, and at 32', .....	=	_____
Correction for height, feet above Mean Sea-level, .....	=	_____
Mean, reduced to 32', and Sea-level, .....	=	_____
Highest Reading, corrected for Index error, on the th, .....	=	_____
Lowest Do. Do., on the th, .....	=	_____
Difference, or <b>Monthly Range</b> , .....	=	_____

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

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

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Difference of above means or range (“exposed”), ..... =

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

[illegible]

James Monroe Clinton

(Signed)

