3834, 8 R 1878.

(Form H.)

☞ To be filled up, and sent on the first of each month, in an envelope addressed to "The Chief Signal Officer, U. S. Army, Washington, D. C."

WAR DEPARTMENT, SIGNAL SERVICE U. S. ARMY,

DIVISION OF TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

✓ 65

255 342

Place of Observation: Inowville

Latitude ~~80~~ 37 ; *Longitude* ~~80~~ 80 , *County of* Pulaski , *State of* Virginia

Height of ground above the Sea, 1800 *feet.*

Name and Post-Office address of Observer: Elmina Drake Hinkle Inowville

METEOROLOGICAL RECORD for the month of Aug , 1878.

Day of Month.	Thermometer in the Open Air. 7 A. M.	2 P. M.	9 P. M.	Mean.	Rain and Snow. Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain and melted snow in gauge, in inches.	Depth of snow, in inches.	Clouds. 7 A. M. Upper Clouds. Kind and amount.	Direction moving from.	Lower Clouds. Kind and amount.	Direction moving from.	2 P. M. Upper Clouds. Kind and amount.	Direction moving from.	Lower Clouds. Kind and amount.	Direction moving from.	9 P. M. Upper Clouds. Kind and amount.	Direction moving from.	Lower Clouds. Kind and amount.	Direction moving from.	Winds. 7 A. M. Direction.	Force.	2 P. M. Direction.	Force.	9 P. M. Direction.	Force.	Day of Month.
1	68	88	75	75.5						1 cir		2 cir															1
2	68	88	72	74.5						2	5	10															2
3	65	85	72	73.5						2																	3
4	65	87	72	74						4																	4
5	64	90	70	73.5	rain						5	10															5
6	75	90	72	74.7																							6
7	64	87	71	73.2																							7
8	61	89	72	73.5						8																	8
9	62	89	75	75.2						3	8																9
10	62	88	75	75	rain							8															10
11	69	76	75	72	rain		10/10			10	10	10															11
12	64	78	74	72.5	rain					5	8	10															12
13	79	75	72	72.7	rain		1/10																				13
14	68	82	76	72.5	rain					10	10																14
15	70	83	72	74.2																							15
16	70	83	71	73.7	rain					10	8																16
17	70	90	71	75.5	rain		10/10			10	10																17
18	68	87	73	74.5	rain					2	10	10															18
19	70	81	70	72.7	rain					8	9	10															19
20	70	78	66	71	rain					10	10																20
21	64	79	68	67.7						8																	21
22	57	80	68	68.4																							22
23	62	82	65	68.5																							23
24	58	80	72	71.2	rain		5/10			8	10	10															24
25	60	80	70	70	rain					10	10	10															25
26	60	79	66	67.7						10	8	5															26
27	68	82	70	72.5	rain					10	5	5															27
28	68	82	71	73						10	8	9															28
29	68	82	71	73	rain					5	10	10															29
30	70	80	70	73.2	rain					10	10	9															30
31	68	80	71	72.5	rain		1/10			10	10	5															31
Sums.	2025	2585	2204	2252.4																							Sums.
Means				72.65																							Means

THE OBJECT of these observations is to enable the Chief Signal Officer, U. S. Army, to prepare a series of maps to illustrate the face of the sky, &c., over the United States for each day in the year, and thus to study the rise, progress, and course of American storms. Observers will be supplied with full directions for using all the instruments, on application to the Chief Signal Officer, Washington, D. C.

EXPLANATION OF THE ABOVE COLUMNS.

THERMOMETER IN THE OPEN AIR.

This is intended for the register of the thermometer, and for the daily mean or average of the three observations. Fractions of degrees should be recorded in tenths, thus: 46°.5, 37°.3, 72°.1, &c.

RAIN AND SNOW.

Under this head are entered the time of beginning and ending of the fall of rain or snow, and the amount, in inches and hundredths, of rain or melted snow collected in a gauge at the surface of the ground; also the depth of the snow. Rain to be indicated by R and snow by S. When there is no rain or snow, mark 0. Amount of rain or melted snow in gauge should be recorded in inches, tenths, and hundredths, thus: 1.25, 6.03, 0.01, &c.

CLOUDS.

Under this general head are entered three daily observations on the aspect of the sky, &c.: 1st. The "Amount of cloudiness," designated by figures, 10 being entire cloudiness; 5 half cloudiness; 0 entire clear, and intermediate numbers in proportion. 2d. "Motion of higher clouds," which pass directly over the observer, as given to eight points of the compass. The direction *from* which they move is given. This observation is important, as the course of the *higher clouds* is sometimes different from that of the *surface wind*, which is given in another column. 3d. The "Velocity," or rate, 10 being the highest, and 0 apparent rest. 4th. The description or "Kind of clouds," to be given by means of the following abbreviations: *S.*—Stratus; *Cu.*—Cumulus; *C.*—Cirrus; *N.*—Nimbus; *C. s.*—Cirro-stratus; *Cu. s.*—Cumulo-stratus; *C. cu.*—Cirro-cumulus.

WINDS.

This is for the record of the direction *from* which the wind is blowing as indicated by a vane, and its force by estimation. The direction is entered in eight points of the compass: N., N.E., E., S.E., S., S.W., W., N.W. The force is to be estimated and registered by figures from 1 to 10, as in the first column of the following table. The figures in the last column, expressing the number of miles per hour, are *not to be used* in the register. A little practice will enable Observers to make use of the figures in the first column, corresponding to light, gentle, fresh, strong, &c., with accuracy, and it is very important that such should be the case to make the record reliable.

0. Calm.								
1. Very light breeze,	varies	between	1	and	2	miles	per	hour.
2. Gentle breeze	"	"	3	"	5	"	"	"
3. Fresh breeze,	"	"	6	"	14	"	"	"
4. Strong wind,	"	"	15	"	29	"	"	"
5. High wind,	"	"	30	"	39	"	"	"
6. Gale,	"	"	40	"	59	"	"	"
7. Strong gale,	"	"	60	"	69	"	"	"
8. Violent gale,	"	"	70	"	79	"	"	"
9. Hurricane,	"	"	80	"	99	"	"	"
10. Most violent hurricane,	"	from 100 upward.						

red by means of the following
s.—Cirro-stratus; *Cu. s.*—Cumulo-stratus; *C. cu.*—Cirro-cumulus.