

Cupboard 28
Shelf 5
No. 34
1 book

TRANSCRIPTS

FROM

FIELD METEOROLOGICAL RECORD

Book No. *47*, 1877.

METEOROLOGICAL RECORDS.

Party No. *Virginia Special Section.*

From Camp at *American, June 8th, 1877.*

To Camp at *Flat. Nev. Sept. 20th, 1877.*

Comparison of Bar. in Carson

Nev. 30th 1877

Anton Karl

In charge of party.

Engineer Department, U. S. Army.

U. S. Geographical Surveys West of 100th Meridian.

METEOROLOGICAL RECORDS.

FORM II.—BOOK No. *3647*, 1877.

U. S. ENGINEER OFFICE.

GEOGRAPHICAL SURVEYS

West of the 100th Meridian.

CORPS OF ENGINEERS,
IN CHARGE.

List of Meteorological Instruments
sent to Mr. Karl,

Cis. Bar. No. 2158 — Error — .002
Cis. Bar. No. 2159 — Error — .020 } See note
An. Bar. No. 14
An. Bar. No. 2093 (~~taken by Mr. Klett June 14/17~~)
Psychrometer No. 227 (Old pattern)
Max. & Min. Thermometer No. 12 (taken by Mr. Klett)
Pocket Thermometer No. 19 (Wood)
Pocket Thermometer No. 32 (Brass) (Church)
Psychrometer No. 17 (New pattern)
Max & Min Thermometer No. 13
Note:

As compared with Cis. Bar. 2178 at
Carson City Nev. May 29th 30th 1877

Aneroid bar. no 2 in possession of Mr Church.

Party No. *Special* Section No. *Virginia*

From (Camp) *1, American Flat, Storey Co. Va.*

To (Camp) *Stations of Plane-table sheets 1, 2 & 3 and Topog. Stations*

Dates: from *June 8th*, 1877, to *Sept 28th*, 1877.

Louis Seckels

Meteorological Observer.

REMARKS.

Observations in camp at American Flat from June 8th
to June 17th will be found in this book; after June 17th
all observations in camp will be found in the other Transcript book.

Sea Bar: 2159 = Standard.

See note Page 35,

1877

I CERTIFY that I have compared this transcript with the original records of observations and find it correct.

Andrew

LT. U. S.

~~Executive Officer~~

No of air barometer observations 219
→ aneroid 5 195.

METEOROLOGICAL OBSERVATIONS

Party No. Division No. Virginia Special Recorded in

Book No. 109

IN THE FIELD, 1877.

Leit Tullman and Lee, Computer.

Table with columns for DATE, HOUR, STANDARD CIST. BAROMETER No. 2158, CISTERN BAROMETER No. 2159, ANEROID No. 14, ANEROID No. 2093. Includes handwritten data for June 8-11 at Camp 1, American Flat, Storey Co. Nevada.

Table with columns for ANEROID No., THERMOMETERS (No. 12, No. 17), Force of Vapor, Rel. Humidity, CLOUDS, RAIN OR SNOW, WIND, and REMARKS. Includes handwritten data for thermometers and atmospheric conditions.

NOTE.—Transcript to be compared by Chief of party with original record, and forwarded, when book is filled, to the Office of the Survey. Fill out, in the field, columns Nos. 1, 2, 3, 4, 9, 11, 14, 15, 17, 18, 19, 20, 24, 25, 26, 27, 28, 29, 30, other barometer is to be obtained by comparison with the reading of the standard, corrected for instrumental error only, and with the reading of its "attached thermometer" corrected for error.

and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No. Division No. Virginia Special

Recorded in Book No. 109

[TRANSCRIPT FROM FORM I.] IN THE FIELD, 1877.

Lieut. Tullman and J. M. Lee, Computer.

Table with columns for DATE, HOUR, STANDARD CIST. BAROMETER No., CISTERN BAROMETER No., ANEROID No., THERMOMETERS, CLOUDS, RAIN OR SNOW, WIND, and REMARKS. Includes handwritten entries for June 11-13 at various locations like Camp 1, American Flat, Justice Hill, and Caledonia Hill.

NOTE.—Transcript to be compared by Chief of party with original record, and forwarded, when book is filled, to the Office of the Survey. Fill out, in the field, columns Nos. 1, 2, 3, 4, 9, 11, 14, 15, 17, 18, 19, 20, 24, 25, 26, 27, 28, 29, 30, next following record whatever may have been crowded out of the column of remarks concerning the preceding place of observation.

and 31. Separate the observations at each place from these at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations.

METEOROLOGICAL OBSERVATIONS

Party No. Division No. *Virginia Special*

Recorded in Book No. 109

[TRANSCRIPT FROM FORM I.]
IN THE FIELD, 1877.

Lieut Tullman and F. M. Lee, Computer.

DATE.	HOUR.	STANDARD CIST. BAROMETER No. 2157					CISTERN BAROMETER No. 2158					ANEROID No. 14			ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.										
		Att'd Ther. Error	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther. Error.	Reading.	Error.	Att'd Ther. Error.	Reading.	Error.	Att'd Ther. Error.	Reading.	Error.	No. 12	No. 17	Dry bulb.	Wet bulb.	Difference.	Amount.			Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	Force.												
																																Maxi-mum.		Mini-mum.	23	24	25	26	27	28	29	30	31
1877 1																																											
<i>June 13</i>	<i>11.0 AM</i>	<i>85.7</i>	<i>24.126</i>	<i>-148</i>	<i>23.921</i>	<i>-017</i>	<i>23.904</i>			<i>+1.0</i>	<i>-002</i>			<i>87.0</i>	<i>23.47</i>					<i>29.1</i>	<i>174</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>25</i>						<i>lies bar. in sun</i>									
	<i>11.30</i>	<i>83.0</i>	<i>24.116</i>	<i>-139</i>	<i>.977</i>	<i>-013</i>	<i>.964</i>						<i>82.0</i>	<i>23.46</i>					<i>29.7</i>	<i>165</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>25</i>																
	<i>12.30</i>	<i>81.8</i>	<i>24.120</i>	<i>-137</i>	<i>.983</i>	<i>-009</i>	<i>.974</i>						<i>82.0</i>	<i>23.455</i>					<i>31.0</i>	<i>163</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>35</i>						<i>misty all around</i>										
															<i>81.1</i>			<i>.167</i>																									
													<i>Camp 1 American Flat (continued)</i>																														
<i>13</i>	<i>2.0 PM</i>	<i>90.8</i>	<i>24.786</i>	<i>-162</i>	<i>24.624</i>			<i>91.0</i>	<i>24.802</i>				<i>92.0</i>	<i>24.13</i>					<i>30.2</i>	<i>176</i>	<i>0</i>	<i>0</i>				<i>N.</i>	<i>12</i>																
	<i>3.00</i>	<i>89.6</i>	<i>24.780</i>					<i>90.0</i>	<i>24.790</i>				<i>96.0</i>	<i>24.13</i>		<i>92.3</i>			<i>30.0</i>	<i>177</i>	<i>0</i>	<i>0</i>				<i>S.W.</i>	<i>12</i>																
	<i>7.00</i>	<i>71.3</i>	<i>24.732</i>					<i>71.4</i>	<i>24.748</i>				<i>72.0</i>	<i>24.08</i>					<i>23.5</i>	<i>220</i>	<i>0</i>	<i>0</i>				<i>S.W.</i>	<i>12</i>																
	<i>9.00</i>	<i>66.3</i>	<i>24.740</i>	<i>-107</i>	<i>24.633</i>			<i>66.2</i>	<i>24.746</i>				<i>66.0</i>	<i>24.10</i>					<i>19.8</i>	<i>268</i>	<i>0</i>	<i>0</i>				<i>S.W.</i>	<i>4</i>																
<i>14</i>	<i>7.0 AM</i>	<i>65.8</i>	<i>24.754</i>	<i>-106</i>	<i>24.648</i>	<i>-029</i>	<i>24.619</i>	<i>65.0</i>	<i>24.754</i>				<i>64.0</i>	<i>24.12</i>					<i>14.4</i>	<i>383</i>	<i>0</i>	<i>0</i>				<i>0</i>	<i>0</i>																
													<i>Station 2 U.S. Survey Post No 39 (Plane-table sheet 1)</i>																														
<i>14</i>	<i>8.30 AM</i>	<i>85.7</i>	<i>24.165</i>	<i>-145</i>	<i>24.020</i>	<i>-029</i>	<i>23.991</i>						<i>74.0</i>	<i>23.52</i>					<i>22.0</i>	<i>261</i>	<i>0</i>	<i>0</i>				<i>S.W.</i>	<i>2</i>							<i>lies bar. in sun</i>									
	<i>9.00</i>	<i>89.2</i>	<i>24.164</i>	<i>-153</i>	<i>.011</i>	<i>-029</i>	<i>.982</i>						<i>77.0</i>	<i>23.52</i>					<i>24.2</i>	<i>235</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>																
															<i>77.7</i>			<i>.248</i>																									
													<i>Station 3 Reliance Mining Cos Shaft (Plane-table sheet 1)</i>																														
<i>14</i>	<i>10.00</i>	<i>75.0</i>	<i>24.142</i>	<i>-122</i>	<i>24.020</i>	<i>-027</i>	<i>23.993</i>						<i>77.0</i>	<i>23.50</i>					<i>22.4</i>	<i>267</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>																
	<i>10.30</i>	<i>75.6</i>	<i>24.142</i>	<i>-124</i>	<i>.018</i>	<i>-022</i>	<i>.996</i>						<i>76.0</i>	<i>23.50</i>					<i>23.3</i>	<i>239</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>																
	<i>11.00</i>	<i>76.2</i>	<i>24.144</i>	<i>-125</i>	<i>.019</i>	<i>-017</i>	<i>1.002</i>						<i>77.0</i>	<i>23.50</i>					<i>23.2</i>	<i>244</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>																
															<i>76.0</i>			<i>.251</i>																									
													<i>Station 5 (Plane-table sheet 1)</i>																														
<i>14</i>	<i>12.30 PM</i>	<i>76.4</i>	<i>24.050</i>	<i>-125</i>	<i>23.925</i>	<i>-003</i>	<i>23.922</i>						<i>73.0</i>	<i>23.42</i>					<i>22.3</i>	<i>239</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>							<i>Station 4 is the same altitude as</i>									
	<i>1.00</i>	<i>77.0</i>	<i>24.046</i>	<i>-127</i>	<i>.919</i>	<i>+004</i>	<i>.923</i>						<i>73.0</i>	<i>23.41</i>					<i>23.9</i>	<i>231</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>							<i>Station 3.</i>									
															<i>75.9</i>			<i>.235</i>																									

NOTE.—Transcript to be compared by Chief of party with original record, and forwarded, when book is filled, to the Office of the Survey. Fill out, in the field, columns Nos. 1, 2, 3, 4, 9, 11, 14, 15, 17, 18, 19, 20, 24, 25, 26, 27, 28, 29, 30, next following record whatever may have been crowded out of the column of remarks concerning the preceding place of observation. Describe each locality in full, using, if necessary, the entire line immediately preceding the set of other barometer is to be obtained by comparison with the reading of the standard, corrected for instrumental error only, and with the reading of its "attached thermometer" corrected for error. The aneroid errors are to be determined by necessary corrections have been made. The reductions performed in each case are to be noted in writing at head of column.

and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

IN THE FIELD, 1877.

Party No. Division No. Virginia Special

Recorded in

Book No. 109

Lieut Samuel E. Tullman & H. H. See, Computer.

Table with columns for DATE, HOUR, STANDARD CIST. BAROMETER NO., CISTERN BAROMETER NO., ANEROID NO., THERMOMETERS, CLOUDS, RAIN OR SNOW, WIND, and REMARKS. Includes handwritten entries for June 14 and 16 at various locations like Station 6, Camp 1, and Gold Hill A.

NOTE.—Transcript to be compared by Chief of party with original record, and forwarded, when book is filled, to the Office of the Survey. Fill out, in the field, columns Nos. 1, 2, 3, 4, 9, 11, 14, 15, 17, 18, 19, 20, 24, 25, 26, 27, 28, 29, 30, other barometer is to be obtained by comparison with the reading of the standard, corrected for instrumental error only, and with the reading of its "attached thermometer" corrected for error. The aneroid errors are to be determined by...

and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all necessary corrections have been made.

METEOROLOGICAL OBSERVATIONS

IN THE FIELD, 1877.

Party No. Division No. *Virginia Special*

Recorded in Book No. *109*

Lieut. T. L. Lee, Computer.

DATE.	HOUR.	STANDARD CIST. BAROMETER No. <i>2152</i>						CISTERN BAROMETER No. <i>2158</i>				ANEROID No. <i>14</i>			ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.						
		Att'd Ther. Error	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther. Error.	Reading.	Error.	Att'd Ther. Error.	Reading.	Error.	Att'd Ther. Error.	Reading.	Error.	Att'd Ther. Error.	Reading.	Error.	No. <i>13</i>	No. <i>17</i>	Dry bulb.			Wet bulb.	Difference.	Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.		Direction.	Force.				
<i>Camp 1 American Flat (continued)</i>																																							
<i>1877</i>																																							
<i>June 16</i>	<i>3:00 PM</i>	<i>636</i>	<i>24805-10</i>	<i>24.707</i>	<i>+0.27</i>	<i>24.734</i>	<i>636</i>						<i>640</i>	<i>24.13</i>										<i>85.0</i>	<i>62.2</i>	<i>55.6</i>	<i>6.6</i>	<i>65.1</i>	<i>10</i>	<i>Nimbus</i>	<i>W.</i>	<i>2:15 PM</i>	<i>4:30 PM</i>		<i>S.W.</i>	<i>4</i>	<i>Thunder shower</i>		
	<i>5:00</i>	<i>626</i>	<i>24750-100</i>	<i>24.650</i>	<i>+0.38</i>	<i>24.688</i>							<i>640</i>	<i>24.11</i>											<i>645</i>	<i>53.5</i>	<i>10.9</i>	<i>48.6</i>	<i>10</i>						<i>W.</i>	<i>4</i>			
	<i>7:00</i>	<i>626</i>	<i>24778-1099</i>	<i>24.679</i>	<i>+0.28</i>	<i>24.707</i>							<i>630</i>	<i>24.12</i>											<i>628</i>	<i>50.3</i>	<i>12.5</i>	<i>42.9</i>	<i>10</i>						<i>W.</i>	<i>4</i>			
	<i>9:00</i>	<i>634</i>	<i>24782-101</i>	<i>24.681</i>	<i>+0.05</i>	<i>24.686</i>							<i>620</i>	<i>24.13</i>											<i>632</i>	<i>50.4</i>	<i>12.7</i>	<i>42.3</i>	<i>10</i>						<i>W.</i>	<i>4</i>			
						<i>24.686</i>																			<i>63.7</i>			<i>49.6</i>											
<i>17</i>	<i>7:00 AM</i>	<i>623</i>	<i>24828-1198</i>	<i>24.730</i>	<i>-0.29</i>	<i>24.701</i>	<i>620</i>						<i>610</i>	<i>24.20</i>										<i>39.5</i>	<i>61.4</i>	<i>53.5</i>	<i>7.9</i>	<i>59.0</i>	<i>0</i>	<i>0</i>				<i>0</i>	<i>0</i>				
	<i>5:00 PM</i>	<i>625</i>	<i>24778-1145</i>	<i>24.683</i>	<i>+0.38</i>	<i>24.691</i>	<i>638</i>						<i>890</i>	<i>24.18</i>										<i>92.5</i>	<i>80.0</i>	<i>58.4</i>	<i>21.5</i>	<i>25.3</i>	<i>5</i>	<i>hum</i>	<i>W.</i>				<i>W.W.</i>	<i>4</i>			
	<i>7:00</i>	<i>624</i>	<i>24790-114</i>	<i>24.676</i>	<i>+0.28</i>	<i>24.699</i>	<i>626</i>						<i>70.0</i>	<i>24.17</i>											<i>691</i>	<i>53.7</i>	<i>15.3</i>	<i>37.6</i>	<i>4</i>						<i>W.</i>	<i>4</i>			
	<i>9:00</i>	<i>636</i>	<i>24806-101</i>	<i>24.705</i>	<i>+0.05</i>	<i>24.710</i>	<i>636</i>						<i>640</i>	<i>24.18</i>											<i>628</i>	<i>53.0</i>	<i>9.7</i>	<i>52.4</i>	<i>8</i>		<i>S.E.</i>				<i>S.W.</i>	<i>2</i>			
						<i>24.700</i>																			<i>68.3</i>			<i>44.3</i>											
<i>Station 7 (Plane-table sheet 1)</i>																																							
<i>18</i>	<i>10:30 AM</i>	<i>820</i>	<i>24258-133</i>	<i>24.125</i>	<i>-0.22</i>	<i>24.103</i>							<i>78.0</i>	<i>23.63</i>											<i>78.5</i>	<i>53.8</i>	<i>22.6</i>	<i>26.0</i>	<i>3</i>	<i>hum</i>					<i>S.E.</i>	<i>4</i>	<i>his Bar in sun</i>		
	<i>11:00</i>	<i>822</i>	<i>24250-138</i>	<i>24.112</i>	<i>-0.17</i>	<i>24.095</i>							<i>80.0</i>	<i>23.63</i>												<i>79.9</i>	<i>56.2</i>	<i>23.6</i>	<i>24.6</i>	<i>2</i>						<i>W.</i>	<i>12</i>		
						<i>24.099</i>																			<i>79.2</i>			<i>25.3</i>											
<i>Station 8 (Plane-table sheet 1)</i>																																							
<i>18</i>	<i>11:30 AM</i>	<i>828</i>	<i>24230-143</i>	<i>24.087</i>	<i>-0.13</i>	<i>24.074</i>							<i>80.0</i>	<i>23.63</i>												<i>79.6</i>	<i>56.5</i>	<i>23.0</i>	<i>24.8</i>	<i>3</i>	<i>hum</i>					<i>S.E.</i>	<i>12</i>	<i>his Bar in sun</i>	
						<i>24.074</i>																				<i>79.6</i>			<i>24.8</i>										
<i>Station 9 (Plane-table sheet 1)</i>																																							
<i>18</i>	<i>12:30 PM</i>	<i>873</i>	<i>24294-151</i>	<i>24.143</i>	<i>-0.03</i>	<i>24.140</i>							<i>90.0</i>	<i>23.70</i>												<i>88.8</i>	<i>57.2</i>	<i>31.5</i>	<i>16.4</i>	<i>4</i>	<i>his hum</i>					<i>S.E.</i>	<i>12</i>	<i>his Bar in sun</i>	
	<i>1:00</i>	<i>875</i>	<i>24284-154</i>	<i>24.134</i>	<i>+0.04</i>	<i>24.136</i>							<i>870</i>	<i>23.68</i>												<i>87.8</i>	<i>57.0</i>	<i>30.7</i>	<i>17.1</i>	<i>4</i>						<i>W.</i>	<i>12</i>		
						<i>24.138</i>																				<i>88.3</i>			<i>16.7</i>										
<i>Ranch at Base of Station 9</i>																																							
<i>18</i>	<i>2:00 PM</i>	<i>810</i>	<i>24528-138</i>	<i>24.438</i>	<i>+0.17</i>	<i>24.455</i>							<i>92.0</i>	<i>23.98</i>												<i>79.6</i>	<i>53.5</i>	<i>26.0</i>	<i>20.4</i>	<i>6</i>	<i>his hum</i>	<i>W.</i>				<i>W.W.</i>	<i>12</i>	<i>his Bar in sun</i>	
						<i>24.455</i>																				<i>79.6</i>			<i>20.4</i>										
<i>Tunnel at Base of Station 9</i>																																							
<i>18</i>	<i>2:30</i>	<i>903</i>	<i>24522-158</i>	<i>24.364</i>	<i>+0.22</i>	<i>24.386</i>							<i>870</i>	<i>23.91</i>												<i>84.1</i>	<i>57.2</i>	<i>26.8</i>	<i>21.0</i>	<i>8</i>	<i>his hum</i>	<i>W.</i>				<i>W.W.</i>	<i>4</i>	<i>his Bar in sun</i>	
						<i>24.386</i>																				<i>84.1</i>			<i>21.0</i>										

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METEOROLOGICAL OBSERVATIONS

Party No.

Division No. Virginia Special

Recorded in

Book No. 109

SNOW IN THE FIELD, 1877.

Lieut. Lillman & Co.

, Computer. S

Main data table with columns for DATE, HOUR, STANDARD CIST. BAROMETER No., CISTERN BAROMETER No., ANEROID No., THERMOMETERS, CLOUDS, RAIN OR SNOW, WIND, and REMARKS. Includes handwritten entries for June 20 and 21 at various stations.

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and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations.

METEOROLOGICAL OBSERVATIONS

IN THE FIELD, 1877.

Party No.

Division No. *Virginia Special*

Recorded in

Book No. *109*

Lieut Samuel E. Tillman & H. Lee, Computer.

DATE.	HOUR.	STANDARD CIST. BAROMETER No. <i>2159</i>						CISTERN BAROMETER No. _____				ANEROID No. <i>14</i>			ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.		RAIN OR SNOW.			WIND.		REMARKS.				
		Att'd Ther. Error	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.	No. _____	No. <i>17</i>			Dry bulb.	Wet bulb.	Difference.	Amount.	Name.	Direction of Upper Clouds.	Began.		Ended.	Inches.	Direction.	Force.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	14	15	16	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<i>Aqueduct in Bullion Ravine</i>																																				
<i>June 21</i>	<i>12:20</i>	<i>800</i>	<i>23188</i>	<i>-133</i>	<i>23,755</i>	<i>-009</i>	<i>23,746</i>						<i>750</i>	<i>2328</i>									<i>74.6</i>	<i>57.9</i>	<i>22.6</i>		<i>246</i>	<i>2</i>	<i>hum</i>	<i>S</i>				<i>W. 2</i>	<i>his Bar in sun</i>	
	<i>12:30</i>	<i>834</i>	<i>23188</i>	<i>-140</i>	<i>748</i>	<i>-003</i>	<i>745</i>						<i>740</i>	<i>2328</i>									<i>74.8</i>	<i>50.6</i>	<i>24.1</i>		<i>223</i>	<i>3</i>						<i>2</i>		
							<i>23,745</i>																<i>74.7</i>				<i>225</i>									
<i>Station 16 Plane-table sheet 1</i>																																				
<i>31</i>	<i>1:00</i>	<i>776</i>	<i>24088</i>	<i>-128</i>	<i>23,960</i>	<i>+102</i>	<i>23,964</i>						<i>820</i>	<i>2346</i>									<i>74.6</i>	<i>50.2</i>	<i>24.3</i>		<i>220</i>	<i>3</i>	<i>hum</i>	<i>S.E.</i>				<i>W. 12</i>		
	<i>1:30</i>	<i>732</i>	<i>24060</i>	<i>-118</i>	<i>942</i>	<i>+010</i>	<i>952</i>						<i>740</i>	<i>2343</i>									<i>74.8</i>	<i>50.5</i>	<i>23.7</i>		<i>230</i>	<i>3</i>						<i>25</i>		
							<i>23,958</i>																<i>74.4</i>				<i>225</i>									
<i>Station 17 Plane-table sheet 1</i>																																				
<i>22</i>	<i>9:30</i>	<i>796</i>	<i>24360</i>	<i>-134</i>	<i>24,226</i>	<i>-028</i>	<i>24,198</i>						<i>760</i>	<i>2378</i>									<i>74.8</i>	<i>52.1</i>	<i>22.1</i>		<i>254</i>	<i>8</i>	<i>bar-hum</i>				<i>W. 12</i>	<i>his Bar in sun</i>		
	<i>11:15</i>	<i>800</i>	<i>24360</i>	<i>-130</i>	<i>225</i>	<i>-047</i>	<i>198</i>						<i>780</i>	<i>2377</i>									<i>77.2</i>	<i>53.2</i>	<i>24.0</i>		<i>232</i>	<i>8</i>						<i>12</i>		
							<i>24,198</i>																<i>75.8</i>				<i>243</i>									
<i>Station 18 Plane-table sheet 1</i>																																				
<i>22</i>	<i>11:30</i>	<i>692</i>	<i>24226</i>	<i>-110</i>	<i>24,116</i>	<i>-013</i>	<i>24,103</i>						<i>700</i>	<i>2362</i>									<i>67.3</i>	<i>47.0</i>	<i>20.2</i>		<i>263</i>	<i>9</i>	<i>bar-hum</i>				<i>W. 25</i>			
	<i>12:10</i>	<i>706</i>	<i>24212</i>	<i>-113</i>	<i>099</i>	<i>-009</i>	<i>090</i>						<i>710</i>	<i>2362</i>									<i>70.5</i>	<i>50.4</i>	<i>21.0</i>		<i>276</i>	<i>9</i>						<i>25</i>		
							<i>24,096</i>																<i>68.9</i>				<i>270</i>									
<i>Station 19 Plane-table sheet 1</i>																																				
<i>23</i>	<i>8:30</i>	<i>614</i>	<i>24468</i>	<i>-045</i>	<i>24,373</i>	<i>-079</i>	<i>24,294</i>						<i>610</i>	<i>2389</i>									<i>59.0</i>	<i>46.1</i>	<i>12.8</i>		<i>403</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>	<i>his Bar in sun</i>	
							<i>24,244</i>																<i>59.0</i>				<i>403</i>									
<i>Station 20 Plane-table sheet 1</i>																																				
<i>23</i>	<i>9:05</i>	<i>706</i>	<i>24369</i>	<i>-115</i>	<i>24,254</i>	<i>-029</i>	<i>24,225</i>						<i>720</i>	<i>2380</i>									<i>70.2</i>	<i>49.5</i>	<i>20.6</i>		<i>269</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>	<i>his Bar in sun</i>	
							<i>24,225</i>																<i>70.2</i>				<i>269</i>									
<i>Station 21 Plane-table sheet 1</i>																																				
<i>23</i>	<i>10:20</i>	<i>666</i>	<i>24396</i>	<i>-106</i>	<i>24,290</i>	<i>-027</i>	<i>24,263</i>						<i>690</i>	<i>2381</i>									<i>60.7</i>	<i>45.3</i>	<i>15.8</i>		<i>343</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>		
	<i>10:50</i>	<i>663</i>	<i>24388</i>	<i>-105</i>	<i>243</i>	<i>-022</i>	<i>261</i>						<i>670</i>	<i>2380</i>									<i>64.6</i>	<i>47.1</i>	<i>17.4</i>		<i>308</i>	<i>0</i>	<i>0</i>					<i>2</i>		
	<i>11:00</i>	<i>672</i>	<i>24388</i>	<i>-107</i>	<i>275</i>	<i>-017</i>	<i>258</i>						<i>670</i>	<i>23795</i>									<i>66.3</i>	<i>48.3</i>	<i>17.9</i>		<i>303</i>	<i>0</i>	<i>0</i>					<i>2</i>		
							<i>24,260</i>																<i>63.9</i>				<i>318</i>									

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METEOROLOGICAL OBSERVATIONS

Party No.

Division No. *Virginia Special*

Recorded in

Book No. *109*

IN THE FIELD, 1877.

Lieut. Saul, E. Tillman & F. M. Lee, Computer.

DATE.	HOUR.	STANDARD CIST. BAROMETER No. <i>2159</i>					CISTERN BAROMETER No. _____					ANEROID No. <i>14</i>			ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.		RAIN OR SNOW.			WIND.		REMARKS.		
		Att'd Ther. Error	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.	No. _____	No. _____	No. _____	No. _____	Difference.			Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.		Force.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Station 22 Plane-table sheet 1</i>																																		
<i>June 23</i>	<i>12.30</i>	<i>765</i>	<i>24566</i>	<i>-128</i>	<i>24.438</i>	<i>-0.9</i>	<i>24.429</i>						<i>720</i>	<i>2397</i>						<i>676</i>	<i>487</i>	<i>18.8</i>		<i>288</i>	<i>0</i>	<i>0</i>						<i>SE</i>	<i>2</i>	<i>See Bar in sun</i>
	<i>12.30</i>	<i>769</i>	<i>24536</i>	<i>-129</i>	<i>24.427</i>	<i>-0.3</i>	<i>24.424</i>						<i>710</i>	<i>2396</i>						<i>728</i>	<i>516</i>	<i>20.1</i>		<i>251</i>	<i>0</i>	<i>0</i>						<i>SE</i>	<i>2</i>	
							<i>24.426</i>													<i>70.2</i>				<i>284</i>										
<i>Station 23 Plane-table sheet 1</i>																																		
<i>23</i>	<i>1.00</i>	<i>769</i>	<i>24578</i>	<i>-127</i>	<i>24.454</i>	<i>+0.2</i>	<i>24.458</i>						<i>780</i>	<i>23975</i>						<i>697</i>	<i>501</i>	<i>19.5</i>		<i>283</i>	<i>0</i>	<i>0</i>						<i>SE</i>	<i>2</i>	
	<i>1.30</i>	<i>728</i>	<i>24550</i>	<i>-120</i>	<i>24.30</i>	<i>+0.10</i>	<i>24.410</i>						<i>700</i>	<i>2397</i>						<i>700</i>	<i>498</i>	<i>20.1</i>		<i>275</i>	<i>0</i>	<i>0</i>						<i>SE</i>	<i>2</i>	
							<i>24.419</i>													<i>69.8</i>				<i>279</i>										
<i>Knickerbocker Mine</i>																																		
<i>25</i>	<i>11.30</i>	<i>704</i>	<i>24270</i>	<i>-113</i>	<i>24.157</i>	<i>+0.04</i>	<i>24.161</i>						<i>790</i>	<i>2357</i>						<i>705</i>	<i>491</i>	<i>21.3</i>		<i>258</i>	<i>2</i>	<i>cum.</i>					<i>SW</i>	<i>4</i>		
							<i>24.161</i>													<i>70.5</i>				<i>258</i>										
<i>Baltimore Mine</i>																																		
<i>25</i>	<i>1.30</i>	<i>695</i>	<i>24382</i>	<i>-112</i>	<i>24.270</i>	<i>+0.10</i>	<i>24.280</i>						<i>710</i>	<i>2379</i>						<i>676</i>	<i>475</i>	<i>20.0</i>		<i>267</i>	<i>2</i>	<i>cum.</i>					<i>W</i>	<i>4</i>		
							<i>24.280</i>													<i>67.6</i>				<i>267</i>										
<i>Boarding-house, near Baltimore Mine</i>																																		
<i>25</i>	<i>2.00</i>	<i>683</i>	<i>24326</i>	<i>-110</i>	<i>24.216</i>	<i>+0.17</i>	<i>24.233</i>						<i>660</i>	<i>2374</i>						<i>672</i>	<i>475</i>	<i>19.6</i>		<i>271</i>	<i>2</i>	<i>cum.</i>					<i>W</i>	<i>4</i>		
							<i>24.233</i>													<i>67.2</i>				<i>271</i>										
<i>Globe Consolidated Mine</i>																																		
<i>25</i>	<i>2.30</i>	<i>680</i>	<i>24220</i>	<i>-107</i>	<i>24.213</i>	<i>+0.22</i>	<i>24.236</i>						<i>680</i>	<i>23625</i>						<i>694</i>	<i>483</i>	<i>21.0</i>		<i>255</i>	<i>2</i>	<i>cum.</i>					<i>W</i>	<i>4</i>		
							<i>24.235</i>													<i>69.4</i>				<i>255</i>										
<i>Station 24 Plane-table sheet 1</i>																																		
<i>26</i>	<i>9.30</i>	<i>628</i>	<i>24538</i>	<i>-109</i>	<i>24.429</i>	<i>-0.28</i>	<i>24.401</i>						<i>640</i>	<i>2395</i>						<i>636</i>	<i>432</i>	<i>20.3</i>		<i>243</i>	<i>8</i>	<i>cum. Nimbus</i>	<i>SW</i>				<i>SE</i>	<i>12</i>	<i>See Bar in sun</i>	
							<i>24.401</i>													<i>63.6</i>				<i>243</i>										
<i>Station 25 Plane-table sheet 1</i>																																		
<i>26</i>	<i>10.30</i>	<i>636</i>	<i>24230</i>	<i>-109</i>	<i>24.134</i>	<i>-0.22</i>	<i>24.112</i>						<i>700</i>	<i>2367</i>						<i>660</i>	<i>474</i>	<i>18.5</i>		<i>258</i>	<i>9</i>	<i>cum. Nimbus</i>	<i>SW</i>				<i>SE</i>	<i>12</i>	<i>See Bar in sun</i>	
							<i>24.112</i>													<i>68.0</i>				<i>258</i>										
<i>Occidental Grade near Station 8</i>																																		

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METEOROLOGICAL OBSERVATIONS

IN THE FIELD, 1877.

Party No. *Virginia Special* Division No. *Virginia Special* Recorded in

Book No. *109* Lieut. *Saml E Tillman* & *John* Computer.

DATE.	HOUR.	STANDARD CIST. BAROMETER No. <i>2159</i>						CISTERN BAROMETER No.				ANEROID No. <i>14</i>			ANEROID No.				
		ERROR ± <i>-.021</i>						Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.		
		Att'd Ther. Error ± <i>+.8</i>	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	14	15	16	
<i>Occidental Grade near Station 8</i>																			
<i>June 27</i>	<i>8:30 a.m.</i>	<i>72.7</i>	<i>24.170</i>	<i>-.11</i>	<i>24.053</i>	<i>-.029</i>	<i>24.024</i>						<i>68.0</i>	<i>23.58</i>					
	<i>9:00</i>	<i>61.6</i>	<i>24.154</i>	<i>-.094</i>	<i>1.060</i>	<i>-.029</i>	<i>.031</i>						<i>63.0</i>	<i>23.57</i>					
							<i>24.027</i>												
<i>Station 26 Plane-table shut</i>																			
<i>27</i>	<i>10:30</i>	<i>70.2</i>	<i>24.026</i>	<i>-.112</i>	<i>23.914</i>	<i>-.022</i>	<i>23.892</i>						<i>77.0</i>	<i>23.74</i>					
	<i>11:00</i>	<i>70.4</i>	<i>24.044</i>	<i>-.113</i>	<i>.931</i>	<i>-.017</i>	<i>.914</i>						<i>78.0</i>	<i>23.46</i>					
							<i>23.900</i>												
<i>Turtle-works near Justice Mine</i>																			
<i>29</i>	<i>2:30 a.m.</i>	<i>52.6</i>	<i>24.848</i>	<i>-.086</i>	<i>24.760</i>	<i>-.028</i>	<i>24.732</i>						<i>62.0</i>	<i>24.265</i>					
							<i>24.732</i>												
<i>Tank below Superior S & S Mine</i>																			
<i>30</i>	<i>8:30 a.m.</i>	<i>63.6</i>	<i>24.142</i>	<i>-.098</i>	<i>24.044</i>	<i>-.024</i>	<i>24.015</i>												
							<i>24.015</i>												
<i>Gold Hill Mine</i>																			
<i>30</i>	<i>9 a.m.</i>	<i>67.2</i>	<i>24.005</i>	<i>-.106</i>	<i>23.897</i>	<i>-.029</i>	<i>23.868</i>												
							<i>23.868</i>												
<i>Superior S & S Mine</i>																			
<i>30</i>	<i>9:30 a.m.</i>	<i>68.9</i>	<i>23.970</i>	<i>-.109</i>	<i>23.861</i>	<i>-.028</i>	<i>23.833</i>												
							<i>23.833</i>												
<i>West Belcher Mine</i>																			
<i>30</i>	<i>10 a.m.</i>	<i>67.4</i>	<i>24.238</i>	<i>-.106</i>	<i>24.132</i>	<i>-.027</i>	<i>24.105</i>												
							<i>24.105</i>												
<i>Trojan Mine</i>																			
<i>30</i>	<i>10:15 a.m.</i>	<i>68.8</i>	<i>24.250</i>	<i>-.109</i>	<i>24.141</i>	<i>-.025</i>	<i>24.116</i>												
							<i>24.116</i>												
<i>Upper Caledonia Mine</i>																			
<i>30</i>	<i>10:30 a.m.</i>	<i>63.6</i>	<i>24.324</i>	<i>-.100</i>	<i>24.224</i>	<i>-.022</i>	<i>24.202</i>												
							<i>24.202</i>												

ANEROID No.			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.
Att'd Ther.	Reading.	Error.	No.		Differ-ence.	Force of Vapor.	Rel. Humidity.			Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	Force.	
			Maximum.	Minimum.														
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
					<i>62.6</i>	<i>47.2</i>	<i>15.3</i>		<i>350</i>	<i>9</i>	<i>Hum. Nimbus</i>	<i>S.W.</i>				<i>W</i>	<i>4</i>	<i>lis. Bar in sun</i>
					<i>60.4</i>	<i>46.0</i>	<i>14.3</i>		<i>368</i>	<i>9</i>							<i>4</i>	
					<i>61.5</i>				<i>369</i>									
					<i>61.6</i>	<i>46.2</i>	<i>15.3</i>		<i>346</i>	<i>9</i>	<i>Hum. Nimbus</i>	<i>S.W.</i>				<i>W</i>	<i>12</i>	<i>lis Bar in sun</i>
					<i>68.3</i>	<i>49.4</i>	<i>20.8</i>		<i>264</i>	<i>9</i>							<i>12</i>	
					<i>64.9</i>				<i>305</i>									
					<i>52.6</i>	<i>40.4</i>	<i>12.1</i>		<i>394</i>	<i>0</i>	<i>0</i>					<i>S.E.</i>	<i>2</i>	
					<i>52.6</i>				<i>394</i>									
					<i>58.5</i>	<i>45.2</i>	<i>13.2</i>		<i>392</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>58.5</i>				<i>392</i>									
					<i>61.4</i>	<i>46.8</i>	<i>14.5</i>		<i>368</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>61.4</i>				<i>368</i>									
					<i>64.6</i>	<i>47.7</i>	<i>16.8</i>		<i>321</i>	<i>1</i>	<i>lis. hum.</i>					<i>S.E.</i>	<i>2</i>	
					<i>64.6</i>				<i>321</i>									
					<i>62.2</i>	<i>44.3</i>	<i>17.8</i>		<i>289</i>	<i>3</i>	<i>lis. hum.</i>					<i>N.W.</i>	<i>4</i>	
					<i>62.2</i>				<i>289</i>									
					<i>62.9</i>	<i>44.0</i>	<i>18.8</i>		<i>270</i>	<i>3</i>	<i>lis. hum.</i>					<i>N.W.</i>	<i>4</i>	
					<i>62.9</i>				<i>270</i>									
					<i>59.9</i>	<i>42.1</i>	<i>17.7</i>		<i>281</i>	<i>4</i>	<i>lis. hum.</i>					<i>N.W.</i>	<i>12</i>	
					<i>59.9</i>				<i>281</i>									

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and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No. *Virginia Special* Division No. *Virginia Special* Recorded in *Book No. 109*

IN THE FIELD, 1877

Lieut. Tullman & Co., Computer.

DATE	HOUR	STANDARD CIST. BAROMETER No. <i>2159</i> Error ± <i>0.20</i>					CISTERN BAROMETER No. _____					ANEROID No. <i>14</i>			ANEROID No. _____		
		Att'd Ther. Error ± <i>±0.8</i>	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.
<i>July 2</i>	<i>9 a.m.</i>	<i>78.2</i>	<i>24012</i>	<i>-1.29</i>	<i>23.883</i>	<i>-0.29</i>	<i>23.854</i>					<i>74.0</i>	<i>23.42</i>				
							<i>23.854</i>										
	<i>10 a.m.</i>	<i>68.3</i>	<i>23830</i>	<i>-1.08</i>	<i>23.722</i>	<i>-0.27</i>	<i>23.695</i>					<i>75.0</i>	<i>23.22</i>				
							<i>23.695</i>										
	<i>10:30 a.m.</i>	<i>72.4</i>	<i>24114</i>	<i>-1.17</i>	<i>23.997</i>	<i>-0.22</i>	<i>23.975</i>					<i>74.0</i>	<i>23.455</i>				
							<i>23.975</i>										
	<i>11:30</i>	<i>77.5</i>	<i>23908</i>	<i>-1.28</i>	<i>23.780</i>	<i>-0.13</i>	<i>23.767</i>					<i>88.0</i>	<i>23.28</i>				
							<i>23.767</i>										
	<i>12:30</i>	<i>79.0</i>	<i>24000</i>	<i>-1.31</i>	<i>23.869</i>	<i>-0.32</i>	<i>23.866</i>					<i>86.0</i>	<i>23.30</i>				
							<i>23.866</i>										
	<i>8:30 a.m.</i>	<i>66.5</i>	<i>24074</i>	<i>-1.04</i>	<i>23.970</i>	<i>-0.29</i>	<i>23.941</i>					<i>67.0</i>	<i>23.57</i>				
							<i>23.941</i>										
	<i>9:00</i>	<i>65.3</i>	<i>24130</i>	<i>-1.02</i>	<i>24.028</i>	<i>-0.29</i>	<i>23.999</i>					<i>65.0</i>	<i>23.54</i>				
							<i>23.999</i>										
	<i>9:30</i>	<i>71.4</i>	<i>24272</i>	<i>-1.17</i>	<i>24.155</i>	<i>-0.28</i>	<i>24.127</i>					<i>64.0</i>	<i>23.67</i>				
							<i>24.127</i>										

ANEROID No.	THERMOMETERS.	Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.
				Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	Force.	
<i>14</i>	<i>17</i>											
<i>15</i>	<i>17</i>											
<i>16</i>	<i>17</i>											
<i>17</i>	<i>17</i>											
<i>18</i>	<i>17</i>											
<i>19</i>	<i>17</i>											
<i>20</i>	<i>17</i>											
<i>21</i>	<i>17</i>											
<i>22</i>	<i>17</i>											
<i>23</i>	<i>17</i>											
<i>24</i>	<i>17</i>											
<i>25</i>	<i>17</i>											
<i>26</i>	<i>17</i>											
<i>27</i>	<i>17</i>											
<i>28</i>	<i>17</i>											
<i>29</i>	<i>17</i>											
<i>30</i>	<i>17</i>											
<i>31</i>	<i>17</i>											

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and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No. *Virginia Special* Division No. *Virginia Special*

Recorded in

Book No. *109*

IN THE FIELD, 1877.

Lieut. Saml E. Tillman & Fisher, Computer.

DATE	HOUR	STANDARD CIST. BAROMETER No. <i>2152</i>					CISTERN BAROMETER No.					ANEROID No. <i>14</i>			ANEROID No.		
		Att'd Ther. Error	Reading	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction	Barometer reduced.	Att'd Ther. Error	Reading	Error	Att'd Ther. Error	Reading	Error	Att'd Ther. Error	Reading	Error	
<i>Station 1 Plane-table sheet 2</i>																	
<i>July 7</i>	<i>8 a.m.</i>	<i>82.3</i>	<i>24.670</i>	<i>-.140</i>	<i>24.530</i>	<i>-.029</i>	<i>24.501</i>					<i>64.0</i>	<i>24.08</i>				
	<i>8.50</i>	<i>89.9</i>	<i>24.680</i>	<i>-.157</i>	<i>24.523</i>	<i>-.029</i>	<i>24.494</i>					<i>66.0</i>	<i>24.10</i>				
<i>East Justice Hill</i>																	
<i>7</i>	<i>9 a.m.</i>	<i>92.4</i>	<i>24.474</i>	<i>-.162</i>	<i>24.312</i>	<i>-.029</i>	<i>24.283</i>					<i>74.0</i>	<i>23.93</i>				
	<i>9.30</i>	<i>93.3</i>	<i>24.476</i>	<i>-.164</i>	<i>24.312</i>	<i>-.028</i>	<i>24.284</i>					<i>74.0</i>	<i>23.93</i>				
	<i>10.00</i>	<i>88.9</i>	<i>24.476</i>	<i>-.155</i>	<i>24.321</i>	<i>-.027</i>	<i>24.294</i>					<i>74.0</i>	<i>23.92</i>				
<i>Gold Hill B</i>																	
<i>7</i>	<i>11 a.m.</i>	<i>80.4</i>	<i>24.182</i>	<i>-.134</i>	<i>24.048</i>	<i>-.017</i>	<i>24.031</i>					<i>82.0</i>	<i>23.63</i>				
	<i>11.30</i>	<i>82.6</i>	<i>24.184</i>	<i>-.129</i>	<i>24.055</i>	<i>-.013</i>	<i>24.042</i>					<i>79.0</i>	<i>23.62</i>				
<i>Gold Hill C</i>																	
<i>7</i>	<i>12.30 P.</i>	<i>87.0</i>	<i>24.610</i>	<i>-.151</i>	<i>24.459</i>	<i>-.003</i>	<i>24.456</i>					<i>90.0</i>	<i>24.08</i>				
	<i>1.00</i>	<i>90.3</i>	<i>24.604</i>	<i>-.162</i>	<i>24.442</i>	<i>+.004</i>	<i>24.446</i>					<i>90.0</i>	<i>24.07</i>				
<i>Gold Hill D</i>																	
<i>7</i>	<i>1.30 P.</i>	<i>91.2</i>	<i>24.952</i>	<i>-.162</i>	<i>24.790</i>	<i>+.010</i>	<i>24.800</i>					<i>100.0</i>	<i>24.37</i>				
	<i>2.00</i>	<i>91.2</i>	<i>24.958</i>	<i>-.162</i>	<i>24.796</i>	<i>+.017</i>	<i>24.813</i>					<i>100.0</i>	<i>24.38</i>				
<i>Bacon Mill Point</i>																	
<i>7</i>	<i>3.00 P.</i>	<i>89.5</i>	<i>24.880</i>	<i>-.159</i>	<i>24.721</i>	<i>+.027</i>	<i>24.748</i>					<i>89.0</i>	<i>24.31</i>				
	<i>3.30</i>	<i>88.3</i>	<i>24.866</i>	<i>-.156</i>	<i>24.710</i>	<i>+.030</i>	<i>24.740</i>					<i>86.0</i>	<i>24.31</i>				

ANEROID No.			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.
Att'd Ther.	Reading.	Error.	No.	No. <i>17</i>	Dry bulb. <i>+0.3</i>	Wet bulb. <i>+0.4</i>	Difference.			Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	Force.	
<i>14</i>	<i>15</i>	<i>16</i>	<i>17</i>	<i>18</i>	<i>19</i>	<i>20</i>	<i>21</i>	<i>22</i>	<i>23</i>	<i>24</i>	<i>25</i>	<i>26</i>	<i>27</i>	<i>28</i>	<i>29</i>	<i>30</i>	<i>31</i>	
					<i>64.3</i>	<i>59.4</i>	<i>14.7</i>		<i>37.4</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	<i>lies Bar in sun</i>
					<i>70.2</i>	<i>51.5</i>	<i>18.6</i>		<i>30.3</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>67.2</i>				<i>33.8</i>									
					<i>72.4</i>	<i>53.0</i>	<i>19.3</i>		<i>29.7</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	<i>lies Bar in sun</i>
					<i>74.2</i>	<i>53.6</i>	<i>20.5</i>		<i>28.4</i>	<i>0</i>	<i>0</i>					<i>S.E.</i>	<i>2</i>	
					<i>72.6</i>	<i>50.2</i>	<i>22.3</i>		<i>24.5</i>	<i>0</i>	<i>0</i>						<i>2</i>	
					<i>73.1</i>				<i>27.6</i>									
					<i>74.8</i>	<i>50.1</i>	<i>24.6</i>		<i>21.6</i>	<i>0</i>	<i>0</i>					<i>S.W.</i>	<i>4</i>	<i>lies Bar in sun</i>
					<i>79.8</i>	<i>51.8</i>	<i>27.9</i>		<i>18.5</i>	<i>0</i>	<i>0</i>						<i>4</i>	
					<i>74.9</i>				<i>20.0</i>									
					<i>87.2</i>	<i>54.6</i>	<i>32.5</i>		<i>15.7</i>	<i>0</i>	<i>0</i>					<i>S.W.</i>	<i>4</i>	<i>lies Bar in sun</i>
					<i>86.5</i>	<i>53.5</i>	<i>32.9</i>		<i>14.4</i>	<i>0</i>	<i>0</i>						<i>4</i>	
					<i>86.8</i>				<i>14.7</i>									
					<i>90.3</i>	<i>58.9</i>	<i>33.3</i>		<i>15.6</i>	<i>0</i>	<i>0</i>					<i>N.W.</i>	<i>4</i>	<i>Instruments in sun</i>
					<i>90.6</i>	<i>57.8</i>	<i>32.7</i>		<i>15.6</i>	<i>0</i>	<i>0</i>						<i>12</i>	
					<i>90.4</i>				<i>15.3</i>									
					<i>85.6</i>	<i>54.1</i>	<i>31.4</i>		<i>15.8</i>	<i>0</i>	<i>0</i>					<i>N.W.</i>	<i>12</i>	<i>lies Bar in sun</i>
					<i>84.8</i>	<i>54.2</i>	<i>30.5</i>		<i>16.5</i>	<i>0</i>	<i>0</i>						<i>12</i>	
					<i>85.2</i>				<i>16.1</i>									

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METEOROLOGICAL OBSERVATIONS

Party No.

Division No. Virginia Special

Recorded in

Book No. 109

IN THE FIELD, 1877

Lieut. Tullman and Miley, Computer.

DATE.	HOUR.	STANDARD CIST. BAROMETER No. 2159					CISTERN BAROMETER No.				ANEROID No. 14			ANEROID No.			THERMOMETERS.							CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.																			
		Att'd Ther. Error	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.	No. Maxi.	No. Mini.	Dry bulb.	Wet bulb.	Difference.	Force of Vapor.	Rel. Humidity.	Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.		Force.																		
1877		±0.8																																																	
		Station 13 Plane-table sheet 2.																																																	
July 12	11:00 A.M.	95.1	25056	-171	24885	-017	24868						82.0	2435					78.6	52.4	26.1		205	8	lev. hum	S.W.						S	2	lev. Bar in sun																	
	11:30	93.6	25056	-168	24888	-010	24878						78.0	2435					78.4	53.9	24.4		230	8																											
		24.871																																																	
		Station 14																																																	
12	12:10	95.0	25056	-171	24885	-009	24876						90.0	2437					91.8	52.6	34.1		146	9	lev. hum	S.W.						S	2	lev. Bar in sun																	
	12:30	90.3	25044	-160	24844	-003	24841						88.0	2437					88.3	53.4	34.8		131	9																											
		24.878																																																	
		Station 16																																																	
13	8:30 A.M.	96.2	24705	-174	24531	-029	24502						74.0	2400					70.3	54.1	16.1		361	4	cirrus	S.W.						0	0	lev. Bar in sun																	
	9:00	96.2	24706	-174	24532	-029	24503						72.0	2400					72.4	54.6	17.7		232	4																											
		24.500																																																	
		Station 17																																																	
13	9:30 A.M.	97.1	24846	-176	24670	-028	24642						79.0	2415					82.4	58.3	24.0		246	4	cirrus	S.W.						S.W.	2	lev. Bar in sun																	
		24.642																																																	
		Station 18																																																	
13	10:30 A.M.	92.7	24734	-163	24571	-022	24549						92.0	2406					88.6	58.8	29.7		184	5	cirrus	S.W.						0	0	lev. Bar in sun																	
	11:00	95.4	24728	-169	24559	-017	24542						95.0	2406					87.2	57.4	29.7		181	5																											
		24.545																																																	
		Station 19																																																	
13	1:30 P.M.	106.5	24464	-193	24271	+010	24281						100.0	2378					95.3	60.1	35.1		145	3	lev. hum	S.						N.W.	4	lev. Bar in sun																	
		24.281																																																	
		Station 20																																																	
14	8:00 A.M.	90.4	24832	-161	24671	-029	24642						76.0	2417					77.2	56.3	20.8		220	5	cirrus	S.W.						S.W.	2	lev. Bar in sun																	
	8:30	88.6	24826	-157	24669	-029	24640						77.0	2416					78.3	56.5	21.7		276	5																											
		24.641																																																	

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and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No.

Division No.

Virginia Special

Recorded in

Book No. *109*

IN THE FIELD, 1877.

Sgt. Allan Lee

, Computer. *S*

DATE.	HOUR.	STANDARD CIST. BAROMETER No. <i>2159</i>					CISTERN BAROMETER No. _____				ANEROID No. <i>14</i>			ANEROID No. _____		
		Att'd Ther. Error \pm <i>±0.8</i>	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.
<i>Station 21 Plane-table sheet 2</i>																
<i>July 14</i>	<i>9:30 a.</i>	<i>95.7</i>	<i>24.932</i>	<i>-172</i>	<i>24.760</i>	<i>-028</i>	<i>24.732</i>					<i>84.0</i>	<i>24.25</i>			
	<i>10:05</i>	<i>98.2</i>	<i>24.934</i>	<i>-178</i>	<i>756</i>	<i>-027</i>	<i>729</i>					<i>86.0</i>	<i>24.24</i>			
	<i>10:30</i>	<i>97.6</i>	<i>24.923</i>	<i>-177</i>	<i>746</i>	<i>-022</i>	<i>724</i>					<i>85.0</i>	<i>24.23</i>			
							<i>24.728</i>									
<i>Station 22</i>																
<i>14</i>	<i>12:30</i>	<i>100.4</i>	<i>25.010</i>	<i>-182</i>	<i>24.828</i>	<i>-004</i>	<i>24.819</i>					<i>94.0</i>	<i>24.32</i>			
							<i>24.819</i>									
<i>Station 23</i>																
<i>14</i>	<i>10:30</i>	<i>100.9</i>	<i>25.154</i>	<i>-183</i>	<i>24.971</i>	<i>+004</i>	<i>24.976</i>					<i>102.0</i>	<i>24.45</i>			
							<i>24.975</i>									
<i>Ramsell Mill near Silver City.</i>																
<i>18</i>	<i>8:00 a.m.</i>	<i>70.6</i>	<i>24.878</i>	<i>-117</i>	<i>24.761</i>	<i>-024</i>	<i>24.732</i>									
							<i>24.752</i>									
<i>Devil's Gate Toll-house Silver City.</i>																
<i>18</i>	<i>8:30 a.</i>	<i>73.1</i>	<i>25.057</i>	<i>-122</i>	<i>24.935</i>	<i>-024</i>	<i>24.906</i>									
							<i>24.906</i>									
<i>Station 24</i>																
<i>18</i>	<i>9:05</i>	<i>75.7</i>	<i>24.958</i>	<i>-128</i>	<i>24.830</i>	<i>-029</i>	<i>24.801</i>									
	<i>9:30</i>	<i>77.8</i>	<i>24.958</i>	<i>-138</i>	<i>825</i>	<i>-028</i>	<i>797</i>									
							<i>24.799</i>									
<i>Station 25</i>																
<i>18</i>	<i>10:00</i>	<i>94.5</i>	<i>25.134</i>	<i>-170</i>	<i>24.964</i>	<i>-027</i>	<i>24.937</i>									
							<i>24.937</i>									
<i>Old foundry Silver City.</i>																
<i>18</i>	<i>10:30</i>	<i>87.7</i>	<i>25.252</i>	<i>-155</i>	<i>25.097</i>	<i>-022</i>	<i>25.075</i>									
							<i>25.075</i>									

ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.		RAIN OR SNOW.			WIND.		REMARKS.	
Att'd Ther.	Reading.	Error.	No. _____	No. <i>17</i>	Dry bulb. <i>+0.3</i>	Wet bulb. <i>+0.4</i>	Difference.			Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.		Force.
<i>14</i>	<i>15</i>	<i>16</i>	<i>17</i>	<i>18</i>	<i>19</i>	<i>20</i>	<i>21</i>	<i>22</i>	<i>23</i>	<i>24</i>	<i>25</i>	<i>26</i>	<i>27</i>	<i>28</i>	<i>29</i>	<i>30</i>	<i>31</i>	
					<i>82.5</i>	<i>57.2</i>	<i>25.2</i>		<i>224</i>	<i>5</i>	<i>low</i>	<i>S.W.</i>				<i>S.W.</i>	<i>2</i>	<i>See Bar in sun.</i>
					<i>85.0</i>	<i>58.4</i>	<i>26.5</i>		<i>216</i>	<i>7</i>							<i>2</i>	
					<i>86.2</i>	<i>58.8</i>	<i>27.3</i>		<i>208</i>	<i>7</i>							<i>2</i>	
					<i>84.6</i>				<i>217</i>									
					<i>91.6</i>	<i>63.0</i>	<i>28.5</i>		<i>207</i>	<i>5</i>	<i>low</i>	<i>S.W.</i>				<i>S.W.</i>	<i>2</i>	<i>See Bar in sun.</i>
					<i>91.6</i>				<i>207</i>									
					<i>90.8</i>	<i>59.7</i>	<i>31.0</i>		<i>175</i>	<i>4</i>	<i>low</i>	<i>S.W.</i>				<i>S.W.</i>	<i>2</i>	<i>See Bar in sun.</i>
					<i>90.8</i>				<i>175</i>									
					<i>72.3</i>	<i>57.0</i>	<i>15.2</i>		<i>391</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>72.3</i>				<i>391</i>									
					<i>70.6</i>	<i>57.3</i>	<i>13.2</i>		<i>442</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>70.6</i>				<i>442</i>									
					<i>70.3</i>	<i>55.4</i>	<i>14.8</i>		<i>397</i>	<i>0</i>	<i>0</i>					<i>S.W.</i>	<i>2</i>	
					<i>73.6</i>	<i>56.2</i>	<i>17.3</i>		<i>346</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>71.9</i>				<i>376</i>									
					<i>84.2</i>	<i>66.6</i>	<i>23.5</i>		<i>261</i>	<i>0</i>	<i>0</i>					<i>S.W.</i>	<i>2</i>	<i>See Bar in sun.</i>
					<i>84.2</i>				<i>261</i>									
					<i>81.3</i>	<i>59.0</i>	<i>22.2</i>		<i>273</i>	<i>0</i>	<i>0</i>					<i>S.W.</i>	<i>2</i>	
					<i>81.3</i>				<i>273</i>									

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and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No.

Division No. *Virginia Special*

Recorded in

Book No. *109*

SNOW IN THE FIELD, 1877.

Lieut. Illman & Fisher, Computer. S

DATE.	HOUR.	STANDARD CIST. BAROMETER No. <i>2159</i>					CISTERN BAROMETER No. _____					ANEROID No. <i>14</i>			ANEROID No. _____		
		Att'd Ther. Error ± <i>±0.3</i>	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.
<i>Station 26 Plane-table shut 2.</i>																	
<i>July 18</i>	<i>11:00 AM</i>	<i>90.6</i>	<i>25.071</i>	<i>-161</i>	<i>24.910</i>	<i>-0.17</i>	<i>24.893</i>										
	<i>11:30</i>	<i>92.2</i>	<i>25.066</i>	<i>-185</i>	<i>24.881</i>	<i>-0.13</i>	<i>24.868</i>										
							<i>24.880</i>										
<i>Church in Silver City</i>																	
<i>19</i>	<i>8:00 AM</i>	<i>73.9</i>	<i>25.068</i>	<i>-124</i>	<i>24.944</i>	<i>-0.09</i>	<i>24.915</i>					<i>74.0</i>	<i>24.37</i>				
							<i>24.915</i>										
<i>Station 27</i>																	
<i>19</i>	<i>10:00</i>	<i>96.6</i>	<i>24.874</i>	<i>-174</i>	<i>24.700</i>	<i>-0.27</i>	<i>24.673</i>					<i>91.0</i>	<i>24.17</i>				
	<i>10:30</i>	<i>99.8</i>	<i>24.866</i>	<i>-181</i>	<i>24.685</i>	<i>-0.22</i>	<i>24.663</i>					<i>88.0</i>	<i>24.17</i>				
							<i>24.668</i>										
<i>Station 28</i>																	
<i>19</i>	<i>11:30</i>	<i>101.2</i>	<i>25.116</i>	<i>-178</i>	<i>24.938</i>	<i>-0.13</i>	<i>24.925</i>					<i>100.0</i>	<i>24.38</i>				
	<i>12:00</i>	<i>102.4</i>	<i>25.107</i>	<i>-187</i>	<i>24.920</i>	<i>-0.09</i>	<i>24.911</i>					<i>104.0</i>	<i>24.38</i>				
							<i>24.918</i>										
<i>Station 29</i>																	
<i>20</i>	<i>10:00 AM</i>	<i>101.3</i>	<i>25.248</i>	<i>-185</i>	<i>25.063</i>	<i>-0.27</i>	<i>25.036</i>					<i>86.0</i>	<i>24.515</i>				
	<i>10:30</i>	<i>103.6</i>	<i>25.254</i>	<i>-190</i>	<i>25.064</i>	<i>-0.22</i>	<i>25.042</i>					<i>84.0</i>	<i>24.515</i>				
							<i>25.039</i>										
<i>Station 30</i>																	
<i>20</i>	<i>11:30</i>	<i>97.5</i>	<i>25.088</i>	<i>-176</i>	<i>24.912</i>	<i>-0.13</i>	<i>24.899</i>					<i>95.0</i>	<i>24.37</i>				
	<i>12:00</i>	<i>97.0</i>	<i>25.074</i>	<i>-175</i>	<i>24.899</i>	<i>-0.09</i>	<i>24.890</i>					<i>93.0</i>	<i>24.37</i>				
							<i>24.894</i>										
<i>Station 31</i>																	
<i>20</i>	<i>12:30 P.</i>	<i>104.2</i>	<i>25.102</i>	<i>-191</i>	<i>24.911</i>	<i>-0.03</i>	<i>24.908</i>					<i>92.0</i>	<i>24.37</i>				
							<i>24.908</i>										

ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.
Att'd Ther.	Reading.	Error.	No. _____	Maxim.	Minim.	Dry bulb. <i>+0.3</i>	Wet bulb. <i>+0.4</i>			Difference.	Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	
<i>14</i>	<i>15</i>	<i>16</i>	<i>17</i>	<i>18</i>	<i>19</i>	<i>20</i>	<i>21</i>	<i>22</i>	<i>23</i>	<i>24</i>	<i>25</i>	<i>26</i>	<i>27</i>	<i>28</i>	<i>29</i>	<i>30</i>	<i>31</i>	
					<i>86.6</i>	<i>60.2</i>	<i>26.3</i>		<i>223</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>88.5</i>	<i>60.8</i>	<i>27.6</i>		<i>211</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>87.5</i>				<i>217</i>									
					<i>89.0</i>	<i>53.2</i>	<i>15.7</i>		<i>372</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>69.0</i>				<i>377</i>									
					<i>83.8</i>	<i>58.5</i>	<i>25.2</i>		<i>232</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	<i>lev. Bar. in sun</i>
					<i>90.4</i>	<i>61.0</i>	<i>29.3</i>		<i>194</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>87.1</i>				<i>213</i>									
					<i>92.8</i>	<i>61.7</i>	<i>31.0</i>		<i>177</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	<i>lev. Bar. in sun</i>
					<i>97.2</i>	<i>62.6</i>	<i>34.5</i>		<i>154</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>95.0</i>				<i>165</i>									
					<i>84.3</i>	<i>58.6</i>	<i>25.6</i>		<i>224</i>	<i>8</i>	<i>lev. hum. S.W.</i>					<i>0</i>	<i>0</i>	<i>lev. Bar. in sun</i>
					<i>85.6</i>	<i>59.1</i>	<i>26.4</i>		<i>219</i>	<i>6</i>						<i>0</i>	<i>0</i>	
					<i>84.9</i>				<i>223</i>									
					<i>94.8</i>	<i>61.3</i>	<i>33.4</i>		<i>159</i>	<i>4</i>	<i>lev. hum. S.W.</i>					<i>7.77</i>	<i>2</i>	
					<i>92.6</i>	<i>59.3</i>	<i>33.2</i>		<i>155</i>	<i>3</i>						<i>0</i>	<i>0</i>	
					<i>93.7</i>				<i>157</i>									
					<i>92.2</i>	<i>62.1</i>	<i>30.0</i>		<i>148</i>	<i>2</i>	<i>lev. hum. S.W.</i>					<i>P.C.</i>	<i>2</i>	<i>lev. Bar. in sun</i>
					<i>92.7</i>				<i>188</i>									

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and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No. Division No. Virginia Special

Recorded in

Book No. 1109

IN THE FIELD, 1877

Lieut. T. L. ... , Computer.

Table with columns: DATE, HOUR, STANDARD CIST. BAROMETER No. 2159, CISTERN BAROMETER No., ANEROID No. 14, ANEROID No., and REMARKS. Contains handwritten entries for July 21 and 23 at various stations.

Table with columns: ANEROID No., THERMOMETERS (No., Maxi-min., Dry bulb, Wet bulb, Difference), Force of Vapor, Rel. Humidity, Amount, CLOUDS (Name, Direction), RAIN OR SNOW (Began, Ended, Inches), WIND (Direction, Force), and REMARKS. Contains handwritten entries for July 21 and 23.

NOTE.—Transcript to be compared by Chief of party with original record, and forwarded, when book is filled, to the Office of the Survey. Fill out, in the field, columns Nos. 1, 2, 3, 4, 9, 11, 14, 15, 17, 18, 19, 20, 24, 25, 26, 27, 28, 29, 30, next following record whatever may have been crowded out of the column of remarks concerning the preceding place of observation.

and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations.

METEOROLOGICAL OBSERVATIONS

Party No.

Division No. *Virginia Special*

Recorded in

Book No. *110*

IN THE FIELD, 1877.

Lieut. Tillman & M. Lee, Computers.

DATE.	HOUR.	STANDARD CIST. BAROMETER No. <i>2159</i>					CISTERN BAROMETER No. _____				ANEROID No. <i>14</i>			ANEROID No. _____				
		Att'd Ther. Error	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	14	15	16
<i>Station 38 Plane-table sheet 2.</i>																		
<i>July 23</i>	<i>10.30a</i>	<i>897</i>	<i>24712</i>	<i>-156</i>	<i>24566</i>	<i>-0.22</i>	<i>24534</i>						<i>88.0</i>	<i>24.02</i>				
	<i>11.00</i>	<i>899</i>	<i>24714</i>	<i>-157</i>	<i>24557</i>	<i>-0.17</i>	<i>24540</i>						<i>90.0</i>	<i>24.02</i>				
							<i>24.537</i>											
<i>Station 39</i>																		
<i>24</i>	<i>8.30a</i>	<i>789</i>	<i>24462</i>	<i>-143</i>	<i>24319</i>	<i>-0.29</i>	<i>24300</i>						<i>70.0</i>	<i>23.72</i>				
	<i>9.00</i>	<i>83.0</i>	<i>24468</i>	<i>-142</i>	<i>24326</i>	<i>-0.29</i>	<i>24297</i>						<i>68.0</i>	<i>23.71</i>				
							<i>24.298</i>											
<i>Station 40</i>																		
<i>24</i>	<i>10.00</i>	<i>898</i>	<i>24640</i>	<i>-156</i>	<i>24484</i>	<i>-0.27</i>	<i>24457</i>						<i>82.0</i>	<i>23.905</i>				
	<i>10.30</i>	<i>872</i>	<i>24638</i>	<i>-151</i>	<i>24487</i>	<i>-0.22</i>	<i>24465</i>						<i>74.0</i>	<i>23.90</i>				
							<i>24.461</i>											
<i>Vivian Mine</i>																		
<i>24</i>	<i>11.00</i>	<i>673</i>	<i>24710</i>	<i>-158</i>	<i>24602</i>	<i>-0.17</i>	<i>24585</i>						<i>70.0</i>	<i>23.98</i>				
							<i>24.585</i>											
<i>Station 41</i>																		
<i>24</i>	<i>11.30</i>	<i>862</i>	<i>24695</i>	<i>-149</i>	<i>24546</i>	<i>-0.13</i>	<i>24533</i>						<i>82.0</i>	<i>23.94</i>				
	<i>12.00</i>	<i>90.0</i>	<i>24694</i>	<i>-157</i>	<i>24537</i>	<i>-0.29</i>	<i>24508</i>						<i>83.0</i>	<i>23.93</i>				
							<i>24.530</i>											
<i>Station 42</i>																		
<i>25</i>	<i>8.07a</i>	<i>802</i>	<i>24658</i>	<i>-146</i>	<i>24512</i>	<i>-0.29</i>	<i>24493</i>						<i>70.0</i>	<i>23.92</i>				
	<i>8.30</i>	<i>827</i>	<i>24664</i>	<i>-141</i>	<i>24523</i>	<i>-0.29</i>	<i>24494</i>						<i>68.0</i>	<i>23.93</i>				
							<i>24.493</i>											

ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.
Att'd Ther.	Reading.	Error.	No. _____	Maxi-mum.	Mini-mum.	Dry bulb.	Wet bulb.			Differ-ence.	Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
					<i>70.3</i>	<i>70.4</i>												
					<i>86.6</i>	<i>59.3</i>	<i>27.2</i>		<i>216</i>	<i>1</i>	<i>beam. S.W.</i>					<i>S.W.</i>	<i>12</i>	<i>lis. Bar. in sun</i>
					<i>89.5</i>	<i>60.3</i>	<i>29.1</i>		<i>194</i>	<i>1</i>						<i>12</i>		
					<i>88.0</i>				<i>206</i>									
					<i>68.8</i>	<i>51.2</i>	<i>17.6</i>		<i>322</i>	<i>0</i>	<i>0</i>					<i>S.W.</i>	<i>2</i>	<i>lis. Bar. in sun</i>
					<i>73.8</i>	<i>53.0</i>	<i>20.7</i>		<i>270</i>	<i>0</i>	<i>0</i>					<i>4</i>		
					<i>71.3</i>				<i>301</i>									
					<i>73.6</i>	<i>53.1</i>	<i>20.4</i>		<i>283</i>	<i>0</i>	<i>0</i>					<i>S.W.</i>	<i>2</i>	<i>lis. Bar. in sun</i>
					<i>74.2</i>	<i>53.4</i>	<i>20.7</i>		<i>281</i>	<i>0</i>	<i>0</i>					<i>4</i>		
					<i>73.9</i>				<i>282</i>									
					<i>64.6</i>	<i>52.2</i>	<i>12.3</i>		<i>441</i>	<i>0</i>	<i>0</i>					<i>S.W.</i>	<i>4</i>	
					<i>82.4</i>	<i>55.6</i>	<i>26.7</i>		<i>207</i>	<i>0</i>	<i>0</i>					<i>S.W.</i>	<i>4</i>	<i>lis. Bar. in sun</i>
					<i>84.6</i>	<i>56.5</i>	<i>28.0</i>		<i>191</i>	<i>0</i>	<i>0</i>					<i>12</i>		
					<i>83.5</i>				<i>199</i>									
					<i>64.9</i>	<i>49.2</i>	<i>15.6</i>		<i>400</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	<i>lis. Bar. in sun</i>
					<i>64.6</i>	<i>48.8</i>	<i>15.7</i>		<i>349</i>	<i>0</i>	<i>0</i>					<i>S</i>	<i>2</i>	
					<i>64.7</i>				<i>374</i>									

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and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No. *Virginia Special* Division No. *Virginia Special*

Recorded in

Book No. *110*

IN THE FIELD, 1877.

Saint Thomas & Anders, Computer. S

DATE	HOUR	STANDARD CIST. BAROMETER No. <i>2159</i>					CISTERN BAROMETER No. _____					ANEROID No. <i>14</i>			ANEROID No. _____		
		Att'd Ther. Error	Reading	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction	Barometer reduced	Att'd Ther.	Error	Reading	Error	Att'd Ther.	Reading	Error	Att'd Ther.	Reading	Error
<i>1877</i>		<i>±0.8</i>															
<i>Station 43 Plane-table sheet 2</i>																	
<i>July 25</i>	<i>9:50 a.</i>	<i>895</i>	<i>24874</i>	<i>-159</i>	<i>24715</i>	<i>-028</i>	<i>24687</i>					<i>800</i>	<i>24125</i>				
	<i>10:00</i>	<i>896</i>	<i>24880</i>	<i>-159</i>	<i>24721</i>	<i>-027</i>	<i>24694</i>					<i>870</i>	<i>24113</i>				
							<i>24690</i>										
<i>Station 44</i>																	
<i>25</i>	<i>12:30 p.</i>	<i>912</i>	<i>24775</i>	<i>-162</i>	<i>24613</i>	<i>-003</i>	<i>24610</i>					<i>1000</i>	<i>2403</i>				
	<i>1:00</i>	<i>904</i>	<i>24766</i>	<i>-158</i>	<i>24608</i>	<i>+004</i>	<i>24612</i>					<i>900</i>	<i>2400</i>				
							<i>24611</i>										
<i>Occidental Grade near Station 45</i>																	
<i>26</i>	<i>8:00 a.</i>	<i>898</i>	<i>25084</i>	<i>-159</i>	<i>24925</i>	<i>-024</i>	<i>24846</i>					<i>720</i>	<i>2431</i>				
	<i>8:30</i>	<i>898</i>	<i>25042</i>	<i>-159</i>	<i>24883</i>	<i>-044</i>	<i>24844</i>					<i>740</i>	<i>2431</i>				
							<i>24850</i>										
<i>Station 45</i>																	
<i>26</i>	<i>9:00</i>	<i>900</i>	<i>25176</i>	<i>-160</i>	<i>25016</i>	<i>-029</i>	<i>24987</i>					<i>870</i>	<i>2446</i>				
	<i>9:30</i>	<i>902</i>	<i>25188</i>	<i>-160</i>	<i>25023</i>	<i>-028</i>	<i>24995</i>					<i>750</i>	<i>2446</i>				
							<i>24991</i>										
<i>Station 46</i>																	
<i>26</i>	<i>10:30</i>	<i>914</i>	<i>25140</i>	<i>-163</i>	<i>24977</i>	<i>-022</i>	<i>24955</i>					<i>840</i>	<i>2441</i>				
	<i>11:00</i>	<i>903</i>	<i>25126</i>	<i>-160</i>	<i>24966</i>	<i>-017</i>	<i>24949</i>					<i>800</i>	<i>2439</i>				
							<i>24952</i>										
<i>Road at base of Station 46</i>																	
<i>26</i>	<i>11:15 a.</i>	<i>916</i>	<i>25214</i>	<i>-163</i>	<i>25051</i>	<i>-015</i>	<i>25036</i>					<i>900</i>	<i>2448</i>				
							<i>25036</i>										

ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.
Att'd Ther.	Reading.	Error.	No. _____	No. <i>17</i>	Dry bulb. <i>+0.3</i>	Wet bulb. <i>+0.4</i>	Difference.			Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	Force.	
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
					<i>79.8</i>	<i>53.3</i>	<i>26.4</i>		<i>205</i>	<i>0</i>	<i>0</i>					<i>S</i>	<i>4</i>	<i>lis. Bar. in sun</i>
					<i>83.1</i>	<i>55.6</i>	<i>27.4</i>		<i>199</i>	<i>0</i>	<i>0</i>						<i>12</i>	
					<i>81.4</i>				<i>202</i>									
					<i>87.6</i>	<i>57.3</i>	<i>30.2</i>		<i>177</i>	<i>0</i>	<i>0</i>					<i>W.W.</i>	<i>4</i>	<i>lis. Bar. in sun</i>
					<i>87.8</i>	<i>56.8</i>	<i>30.9</i>		<i>168</i>	<i>0</i>	<i>0</i>						<i>12</i>	
					<i>87.7</i>				<i>172</i>									
					<i>67.6</i>	<i>51.5</i>	<i>16.0</i>		<i>353</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	<i>lis. Bar. in sun</i>
					<i>70.7</i>	<i>52.2</i>	<i>18.4</i>		<i>309</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>69.1</i>				<i>331</i>									
					<i>73.6</i>	<i>52.9</i>	<i>20.6</i>		<i>281</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	<i>lis. Bar. in sun</i>
					<i>77.7</i>	<i>57.2</i>	<i>20.4</i>		<i>223</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
					<i>76.6</i>				<i>252</i>									
					<i>84.2</i>	<i>60.6</i>	<i>23.5</i>		<i>261</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	<i>lis. Bar. in sun</i>
					<i>85.6</i>	<i>59.8</i>	<i>25.7</i>		<i>230</i>	<i>0</i>	<i>0</i>					<i>S.W.</i>	<i>2</i>	
					<i>81.9</i>				<i>245</i>									
					<i>87.6</i>	<i>62.3</i>	<i>25.2</i>		<i>242</i>	<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	<i>lis. Bar. in sun</i>
					<i>87.6</i>				<i>242</i>									

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METEOROLOGICAL OBSERVATIONS

Party No. _____ Division No. *Virginia Special* Recorded in _____
 Book No. *110*

IN THE FIELD, 1877.

Lieut Samuel E. Illman and Fisher, Computer. &

DATE.	HOUR.	STANDARD CIST. BAROMETER No. <i>2159</i>						CISTERN BAROMETER No. _____				ANEROID No. <i>17</i>			ANEROID No. _____		
		Att'd Ther. Error	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.
<i>1877.</i>																	
<i>August 29</i>	<i>11 a.m.</i>	<i>70.8</i>	<i>24970</i>	<i>-105</i>	<i>24,867</i>	<i>-017</i>	<i>24,850</i>					<i>72.0</i>	<i>24.21</i>	<i>+657</i>			
							<i>24,850</i>										
<i>29</i>	<i>11.30</i>	<i>80.4</i>	<i>25040</i>	<i>-127</i>	<i>24,913</i>	<i>-018</i>	<i>24,900</i>					<i>76.0</i>	<i>24.27</i>	<i>+643</i>			
							<i>24,900</i>										
<i>31</i>	<i>8:30 a.m.</i>											<i>73.0</i>	<i>24.98</i>	<i>+627</i>			
	<i>9:00</i>											<i>73.0</i>	<i>24.97</i>	<i>+627</i>			
												<i>74.0</i>	<i>25.602</i>				
<i>31</i>	<i>2 P.M.</i>											<i>90.0</i>	<i>24.90</i>	<i>+627</i>			
												<i>90.0</i>	<i>25.527</i>				
<i>31</i>	<i>3 P.M.</i>											<i>88.0</i>	<i>24.83</i>	<i>+627</i>			
												<i>88.0</i>	<i>25.457</i>				
<i>Sept. 3</i>	<i>9 a.m.</i>	<i>71.2</i>	<i>23474</i>	<i>-142</i>	<i>23,332</i>	<i>-029</i>	<i>23,303</i>					<i>70.0</i>	<i>22.77</i>	<i>+562</i>			
	<i>9:30</i>	<i>73.6</i>	<i>23488</i>	<i>-147</i>	<i>23,341</i>	<i>-028</i>	<i>23,313</i>					<i>68.0</i>	<i>22.76</i>	<i>+581</i>			
	<i>10:00</i>	<i>70.2</i>	<i>23492</i>	<i>-140</i>	<i>23,352</i>	<i>-027</i>	<i>23,325</i>					<i>70.0</i>	<i>22.76</i>	<i>+592</i>			
							<i>23,314</i>										
<i>3</i>	<i>11 a.m.</i>	<i>80.3</i>	<i>23011</i>	<i>-117</i>	<i>22,894</i>	<i>-017</i>	<i>22,877</i>					<i>70.0</i>	<i>22.27</i>				
	<i>11:30</i>	<i>80.8</i>	<i>23004</i>	<i>-118</i>	<i>22,886</i>	<i>-013</i>	<i>22,873</i>					<i>74.0</i>	<i>22.27</i>				
	<i>12:00</i>	<i>81.2</i>	<i>22992</i>	<i>-119</i>	<i>22,873</i>	<i>-009</i>	<i>22,864</i>					<i>74.0</i>	<i>22.27</i>				
							<i>22,871</i>										

ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.
Att'd Ther.	Reading.	Error.	No. _____	No. _____	Dry bulb.	Wet bulb.	Difference.			Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	Force.	
				<i>17</i>														
						<i>68.3</i>	<i>48.6</i>	<i>19.6</i>		<i>6</i>	<i>cum.</i>	<i>S.W.</i>				<i>S.W.</i>	<i>12</i>	
						<i>68.3</i>				<i>75</i>								
						<i>69.6</i>	<i>49.4</i>	<i>20.1</i>		<i>7</i>	<i>cum.</i>	<i>S.W.</i>				<i>S.W.</i>	<i>12</i>	
						<i>69.6</i>				<i>273</i>								
						<i>71.2</i>	<i>52.7</i>	<i>18.4</i>		<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
						<i>73.8</i>	<i>53.0</i>	<i>20.7</i>		<i>0</i>	<i>0</i>					<i>0</i>	<i>0</i>	
																	<i>Stations 2, 3, 4 & 5 same altitudes as station 1</i>	
						<i>88.2</i>	<i>58.2</i>	<i>29.9</i>		<i>181</i>	<i>0</i>	<i>0</i>				<i>0</i>	<i>0</i>	
						<i>83.9</i>	<i>54.8</i>	<i>29.0</i>		<i>181</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>	
						<i>64.6</i>	<i>47.1</i>	<i>17.4</i>		<i>308</i>	<i>0</i>	<i>0</i>				<i>S.W.</i>	<i>2</i>	
						<i>64.6</i>	<i>47.2</i>	<i>17.3</i>		<i>310</i>	<i>0</i>	<i>0</i>						
						<i>65.8</i>	<i>46.8</i>	<i>18.9</i>		<i>279</i>	<i>0</i>	<i>0</i>						
						<i>65.0</i>				<i>299</i>								
						<i>71.3</i>	<i>49.0</i>	<i>22.2</i>		<i>242</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>4</i>	
						<i>74.2</i>	<i>51.2</i>	<i>22.9</i>		<i>243</i>	<i>0</i>	<i>0</i>						
						<i>75.2</i>	<i>53.5</i>	<i>21.6</i>		<i>268</i>	<i>0</i>	<i>0</i>						
						<i>73.5</i>				<i>251</i>								

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and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No.

Division No. *Virginia Special*

Recorded in

Book No. *110*

IN THE FIELD, 1877.

Sent Illman and Miller, Computer.

DATE	HOUR	STANDARD CIST. BAROMETER No. <i>2159</i>						CISTERN BAROMETER No. _____				ANEROID No. <i>14</i>			ANEROID No. _____		
		Att'd Ther. Error	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.
<i>1877</i>																	
<i>Sept. 3</i>	<i>10:30</i>	<i>87.6</i>	<i>23.658</i>	<i>-124</i>	<i>23.534</i>	<i>+0.04</i>	<i>23.578</i>					<i>80.0</i>	<i>22.92</i>				
							<i>23.528</i>										
	<i>9:30</i>	<i>92.6</i>	<i>23.708</i>	<i>-145</i>	<i>23.563</i>	<i>-0.28</i>	<i>23.535</i>					<i>77.0</i>	<i>22.73</i>				
	<i>10:00</i>	<i>92.4</i>	<i>23.692</i>	<i>-144</i>	<i>23.548</i>	<i>-0.27</i>	<i>23.521</i>					<i>76.0</i>	<i>22.73</i>				
	<i>10:30</i>	<i>96.4</i>	<i>23.697</i>	<i>-150</i>	<i>23.547</i>	<i>-0.22</i>	<i>23.520</i>					<i>78.0</i>	<i>22.93</i>				
							<i>23.625</i>										
	<i>12:30</i>	<i>95.4</i>	<i>23.972</i>	<i>-154</i>	<i>23.818</i>	<i>-0.39</i>	<i>23.813</i>					<i>88.0</i>	<i>23.23</i>				
	<i>1:00</i>	<i>98.8</i>	<i>23.968</i>	<i>-161</i>	<i>23.807</i>	<i>-0.34</i>	<i>23.811</i>					<i>90.0</i>	<i>23.23</i>				
	<i>1:30</i>	<i>95.2</i>	<i>23.954</i>	<i>-153</i>	<i>23.801</i>	<i>-0.10</i>	<i>23.811</i>					<i>88.0</i>	<i>23.22</i>				
							<i>23.812</i>										
	<i>10:20</i>	<i>81.4</i>	<i>23.195</i>	<i>-119</i>	<i>23.076</i>	<i>-0.27</i>	<i>23.049</i>					<i>70.0</i>	<i>22.43</i>				
	<i>10:30</i>	<i>83.6</i>	<i>23.188</i>	<i>-124</i>	<i>23.064</i>	<i>-0.22</i>	<i>23.042</i>					<i>70.0</i>	<i>22.42</i>				
	<i>11:00</i>	<i>82.2</i>	<i>23.178</i>	<i>-121</i>	<i>23.057</i>	<i>-0.17</i>	<i>23.040</i>					<i>69.0</i>	<i>22.40</i>				
							<i>23.113</i>										
	<i>9:00</i>	<i>78.5</i>	<i>23.086</i>	<i>-113</i>	<i>22.973</i>	<i>-0.29</i>	<i>22.944</i>					<i>62.0</i>	<i>22.35</i>				
	<i>9:30</i>	<i>75.6</i>	<i>23.088</i>	<i>-107</i>	<i>22.981</i>	<i>-0.28</i>	<i>22.953</i>					<i>60.0</i>	<i>22.35</i>				
	<i>10:00</i>	<i>78.6</i>	<i>23.088</i>	<i>-113</i>	<i>22.975</i>	<i>-0.27</i>	<i>22.948</i>					<i>62.0</i>	<i>22.36</i>				
							<i>22.948</i>										
	<i>11:30</i>	<i>81.6</i>	<i>23.236</i>	<i>-120</i>	<i>23.116</i>	<i>-0.13</i>	<i>23.103</i>					<i>70.0</i>	<i>22.545</i>				
	<i>12:00</i>	<i>79.0</i>	<i>23.236</i>	<i>-114</i>	<i>23.122</i>	<i>-0.09</i>	<i>23.113</i>					<i>70.0</i>	<i>22.54</i>				

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ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.
Att'd Ther.	Reading.	Error.	No. _____	No. _____	Dry bulb.	Wet bulb.	Difference.			Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	Force.	
					<i>75.3</i>	<i>57.0</i>	<i>21.2</i>		<i>270</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>4</i>	<i>lis. Bar. in sun</i>	
					<i>75.3</i>				<i>275</i>									
					<i>76.7</i>	<i>52.2</i>	<i>14.5</i>		<i>389</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>	<i>lis. Bar. in sun</i>	
					<i>78.0</i>	<i>52.8</i>	<i>25.1</i>		<i>217</i>	<i>0</i>	<i>0</i>					<i>12</i>		
					<i>80.9</i>	<i>53.5</i>	<i>27.3</i>		<i>196</i>	<i>0</i>	<i>0</i>					<i>12</i>		
					<i>78.5</i>				<i>267</i>									
					<i>84.6</i>	<i>54.3</i>	<i>30.2</i>		<i>169</i>	<i>0</i>	<i>0</i>				<i>S.W.</i>	<i>4</i>	<i>lis. Bar. in sun</i>	
					<i>87.2</i>	<i>55.9</i>	<i>21.2</i>		<i>278</i>	<i>0</i>	<i>0</i>					<i>4</i>		
					<i>85.4</i>	<i>54.6</i>	<i>30.7</i>		<i>165</i>	<i>0</i>	<i>0</i>					<i>12</i>		
					<i>85.7</i>				<i>204</i>									
					<i>67.3</i>	<i>48.2</i>	<i>19.0</i>		<i>285</i>	<i>4</i>	<i>Cur. N.W.</i>				<i>N.W.</i>	<i>4</i>	<i>lis. Bar. in sun</i>	
					<i>68.6</i>	<i>48.8</i>	<i>19.7</i>		<i>274</i>	<i>4</i>						<i>4</i>		
					<i>70.6</i>	<i>49.7</i>	<i>20.8</i>		<i>267</i>	<i>5</i>						<i>12</i>		
					<i>68.8</i>				<i>275</i>									
					<i>57.4</i>	<i>42.0</i>	<i>15.3</i>		<i>326</i>	<i>4</i>	<i>Cur. N.E.</i>				<i>N.W.</i>	<i>2</i>	<i>lis. Bar. in sun</i>	
					<i>58.6</i>	<i>43.5</i>	<i>15.0</i>		<i>342</i>	<i>2</i>						<i>4</i>		
					<i>62.4</i>	<i>45.6</i>	<i>16.7</i>		<i>315</i>	<i>1</i>						<i>2</i>		
					<i>59.5</i>				<i>328</i>									
					<i>69.5</i>	<i>47.3</i>	<i>22.1</i>		<i>236</i>	<i>1</i>	<i>Cur. N.E.</i>				<i>N.W.</i>	<i>4</i>	<i>lis. Bar. in sun</i>	
					<i>68.7</i>	<i>45.4</i>	<i>23.2</i>		<i>215</i>	<i>0</i>	<i>0</i>			<i>Misty</i>		<i>4</i>		
					<i>69.1</i>				<i>225</i>									

and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No.

Division No.

Virginia Special

Recorded in

Book No. *110*

IN THE FIELD, 1877.

Lieut. Sherman and Ash

, Computer. *S*

DATE.	HOUR.	STANDARD CIST. BAROMETER No. <i>2159</i>					CISTERN BAROMETER No. _____				ANEROID No. <i>14</i>			ANEROID No. _____			
		Att'd Ther. Error ± 0.8	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Hourly Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.
<i>1877.</i>																	
<i>Topog. Station 9</i>																	
<i>Sept 7</i>	<i>11:30^{am}</i>	<i>82.0</i>	<i>23.706</i>	<i>-123</i>	<i>23.583</i>	<i>-0.13</i>	<i>23.570</i>					<i>80.0</i>	<i>22.77</i>				
	<i>12:00</i>	<i>81.3</i>	<i>23.692</i>	<i>-121</i>	<i>23.571</i>	<i>-0.09</i>	<i>23.562</i>					<i>78.0</i>	<i>22.96</i>				
							<i>23.566</i>										
<i>Topog. Station 8</i>																	
<i>7</i>	<i>9:00 am</i>	<i>85.4</i>	<i>23.750</i>	<i>-130</i>	<i>23.620</i>	<i>-0.09</i>	<i>23.591</i>					<i>72.0</i>	<i>22.98</i>				
	<i>9:30</i>	<i>84.6</i>	<i>23.747</i>	<i>-128</i>	<i>23.619</i>	<i>-0.08</i>	<i>23.591</i>					<i>70.0</i>	<i>22.98</i>				
	<i>10:00</i>	<i>85.3</i>	<i>23.742</i>	<i>-120</i>	<i>23.622</i>	<i>-0.07</i>	<i>23.585</i>					<i>68.0</i>	<i>22.98</i>				
							<i>23.589</i>										
<i>Topog. Station 10</i>																	
<i>8</i>	<i>9:00 am</i>	<i>90.0</i>	<i>24.230</i>	<i>-148</i>	<i>23.782</i>	<i>-0.09</i>	<i>23.753</i>					<i>73.0</i>	<i>24.18</i>				
	<i>9:30</i>	<i>91.8</i>	<i>24.236</i>	<i>-152</i>	<i>23.784</i>	<i>-0.28</i>	<i>23.756</i>					<i>70.0</i>	<i>24.18</i>				
	<i>10:00</i>	<i>94.6</i>	<i>24.248</i>	<i>-158</i>	<i>23.790</i>	<i>-0.27</i>	<i>23.763</i>					<i>70.0</i>	<i>24.18</i>				
							<i>24.757</i>										
<i>Topog. Station 13</i>																	
<i>21</i>	<i>10:00 am</i>	<i>82.0</i>	<i>24.504</i>	<i>-128</i>	<i>24.376</i>	<i>-0.27</i>	<i>24.349</i>					<i>68.0</i>	<i>23.77</i>				
	<i>10:30</i>	<i>85.6</i>	<i>24.500</i>	<i>-135</i>	<i>24.365</i>	<i>-0.22</i>	<i>24.343</i>					<i>70.0</i>	<i>23.77</i>				
							<i>24.346</i>										
<i>Topog. Station 14</i>																	
<i>21</i>	<i>11:30 am</i>	<i>75.3</i>	<i>24.686</i>	<i>-113</i>	<i>24.573</i>	<i>-0.13</i>	<i>24.560</i>					<i>70.0</i>	<i>23.93</i>				
	<i>12:00</i>	<i>77.0</i>	<i>24.674</i>	<i>-117</i>	<i>24.557</i>	<i>-0.04</i>	<i>24.548</i>					<i>72.0</i>	<i>23.93</i>				
							<i>24.554</i>										

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ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.
Att'd Ther.	Reading.	Error.	No. _____	No. _____	No. <i>17</i>	Dry bulb. $+0.3$	Wet bulb. $+0.4$			Difference.	Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	
							<i>74.3</i>	<i>49.6</i>	<i>24.6</i>	<i>215</i>	<i>0</i>	<i>0</i>				<i>N.E.</i>	<i>4</i>	<i>lies' Bar' in sun</i>
							<i>74.8</i>	<i>49.2</i>	<i>25.5</i>	<i>203</i>	<i>0</i>	<i>0</i>					<i>12</i>	
							<i>74.0</i>			<i>209</i>								
							<i>66.0</i>	<i>48.2</i>	<i>17.7</i>	<i>306</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>2</i>	<i>lies' Bar' in sun</i>
							<i>67.2</i>	<i>47.4</i>	<i>17.7</i>	<i>311</i>	<i>0</i>	<i>0</i>					<i>2</i>	
							<i>70.3</i>	<i>49.5</i>	<i>20.7</i>	<i>268</i>	<i>0</i>	<i>0</i>					<i>2</i>	
							<i>67.8</i>			<i>295</i>								
							<i>68.6</i>	<i>47.8</i>	<i>14.7</i>	<i>295</i>	<i>0</i>	<i>0</i>				<i>S.E.</i>	<i>4</i>	<i>lies' Bar' in sun</i>
							<i>66.5</i>	<i>48.2</i>	<i>17.2</i>	<i>316</i>	<i>0</i>	<i>0</i>					<i>4</i>	
							<i>67.7</i>	<i>47.4</i>	<i>20.2</i>	<i>264</i>	<i>0</i>	<i>0</i>					<i>4</i>	
							<i>67.6</i>			<i>292</i>								
							<i>69.3</i>	<i>45.5</i>	<i>23.7</i>	<i>211</i>	<i>0</i>	<i>0</i>				<i>S.W.</i>	<i>25</i>	<i>lies' Bar' in sun</i>
							<i>69.4</i>	<i>45.3</i>	<i>24.1</i>	<i>204</i>	<i>2</i>	<i>lies' sun N.E.</i>					<i>25</i>	
							<i>69.3</i>			<i>207</i>								
							<i>71.3</i>	<i>45.2</i>	<i>26.0</i>	<i>182</i>	<i>2</i>	<i>lies' sun N.E.</i>				<i>S.W.</i>	<i>25</i>	<i>lies' Bar' in sun</i>
							<i>73.2</i>	<i>46.4</i>	<i>26.7</i>	<i>180</i>	<i>2</i>						<i>25</i>	
							<i>72.2</i>			<i>181</i>								

and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No. *Division No. Virginia Special*

Recorded in

STANDARD CIST. BAROMETER No. *2159*

CISTERN BAROMETER No. _____

ANEROID No. *14*

ANEROID No. _____

ERROR ± *-.009*

DATE.	HOOR.	Att'd Ther. Error	Reading.	Correct for error, and red. to 32°	Barometer at 32°	Horary Correction.	Barometer reduced.	Att'd Ther.	Error.	Reading.	Error.	Att'd Ther.	Reading.	Error.	Att'd Ther.	Reading.	Error.
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Sept 26 11:00 AM 75.4 23.908 - .111 23.797 - .017 23.780
11:30 84.7 23.910 - .131 779 - .013 666
12:00 82.8 23.900 - .127 773 - .009 764
23.737

Topog. Station 21

27 11:00 AM 92.2 24.974 - .155 24.819 - .017 24.802
11:30 93.0 24.959 - .154 24.805 - .013 792
24.797

Topog. Station 22

27 2:00 PM 75.4 23.858 - .111 23.747 + .017 23.764
2:30 74.1 23.840 - .108 732 - .022 710
23.737

Topog. Station 23

27 3:30 PM 96.8 24.834 - .154 24.680 + .030 24.710
24.710

Farm South of Triang. Station R

28 9:30 AM 76.3 24.682 - .115 24.567 - .022 24.539
10:00 77.0 24.678 - .117 24.561 - .027 24.534
24.534
24.566

Topog. Station 24

28 11:00 AM 83.5 24.668 - .131 24.537 - .017 24.520
11:30 86.4 24.650 - .137 24.513 - .013 24.500
24.510

Topog. Station 25

IN THE FIELD, 1877.

Book No. *110*

Sent Luman & M. Sec., Computer. S

ANEROID No. _____			THERMOMETERS.					Force of Vapor.	Rel. Humidity.	CLOUDS.			RAIN OR SNOW.			WIND.		REMARKS.
Att'd Ther.	Reading.	Error.	No. Maximum.	No. Minimum.	No. Dry bulb.	No. Wet bulb.	Difference.			Amount.	Name.	Direction of Upper Clouds.	Began.	Ended.	Inches.	Direction.	Force.	

14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
					<i>67.8</i>	<i>47.5</i>	<i>19.7</i>		<i>269</i>	<i>0</i>	<i>0</i>							<i>S.W. 4</i>
					<i>67.6</i>	<i>47.4</i>	<i>20.1</i>		<i>273</i>	<i>0</i>	<i>0</i>							<i>.. 4</i>
					<i>69.4</i>	<i>46.9</i>	<i>22.4</i>		<i>231</i>	<i>0</i>	<i>0</i>							<i>.. 12</i>
					<i>68.8</i>				<i>258</i>									<i>..</i>
					<i>70.8</i>	<i>52.6</i>	<i>18.1</i>		<i>317</i>	<i>0</i>	<i>0</i>							<i>Sis. Bar. in sun</i>
					<i>72.6</i>	<i>53.4</i>	<i>19.2</i>		<i>304</i>	<i>0</i>	<i>0</i>							<i>W.E. 2</i>
					<i>71.7</i>				<i>308</i>									<i>..</i>
					<i>71.0</i>	<i>50.5</i>	<i>20.4</i>		<i>275</i>	<i>0</i>	<i>0</i>							<i>..</i>
					<i>71.8</i>	<i>50.8</i>	<i>20.9</i>		<i>271</i>	<i>0</i>	<i>0</i>							<i>..</i>
					<i>71.4</i>				<i>273</i>									<i>..</i>
					<i>80.3</i>	<i>60.4</i>	<i>19.8</i>		<i>319</i>	<i>0</i>	<i>0</i>							<i>Sis. Bar. in sun</i>
					<i>80.3</i>				<i>319</i>									<i>..</i>
					<i>61.3</i>	<i>45.6</i>	<i>15.6</i>		<i>338</i>	<i>0</i>	<i>0</i>							<i>Sis. Bar. in sun</i>
					<i>64.7</i>	<i>45.3</i>	<i>19.3</i>		<i>268</i>	<i>2</i>	<i>Sis. Bar. W.W.</i>							<i>S.W. 12</i>
					<i>63.0</i>				<i>303</i>									<i>..</i>
					<i>77.2</i>	<i>51.0</i>	<i>26.1</i>		<i>201</i>	<i>3</i>	<i>Sis. Bar. W.W.</i>							<i>S.W. 12</i>
					<i>80.3</i>	<i>53.5</i>	<i>26.7</i>		<i>203</i>	<i>0</i>	<i>0</i>							<i>.. 12</i>
					<i>78.7</i>				<i>222</i>									<i>..</i>

NOTE.—Transcript to be compared by Chief of party with original record, and forwarded, when book is filled, to the Office of the Survey. Fill out, in the field, columns Nos. 1, 2, 3, 4, 9, 11, 14, 15, 17, 18, 19, 20, 24, 25, 26, 27, 28, 29, 30, next following record whatever may have been crowded out of the column of remarks concerning the preceding place of observation. Describe each locality in full, using, if necessary, the entire line immediately preceding the set of other barometer is to be obtained by comparison with the reading of the standard, corrected for instrumental error only, and with the reading of its "attached thermometer" corrected for error. The aneroïd errors are to be determined by necessary corrections have been made. The reductions performed in each case are to be noted in writing at head of column.

and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations. On the lines observations at that locality. When two cistern barometers are read together, enter the reading of that one which is the more reliable, or which is more habitually in the party, in column 4, as the standard barometer. The error of the comparison with the "standard barometer at 32° F." The "error" is plus when the reading is less than that of the standard, and minus when greater. Column 13 is for recording the reduced readings of the second barometer after all

METEOROLOGICAL OBSERVATIONS

Party No. Division No. Virginia Special

Recorded in

Book No. 110

[TRANSCRIPT FROM FORM I.] SNOW IN THE FIELD, 1877.

Lieut Samuel C. Illman & J. M. [unclear] Computer.

Table with columns: DATE, HOUR, STANDARD CIST. BAROMETER No. 2159, CISTERN BAROMETER No., ANEROID No. 14, ANEROID No., and REMARKS. Includes data for Sept 28 and Nov 30.

Comparison of Standard Bars of the California Div'n.

Table with columns: ANEROID No., THERMOMETERS (No., Dry bulb, Wet bulb, Difference), Force of Vapor, Rel. Humidity, CLOUDS, RAIN OR SNOW, WIND, and REMARKS. Includes data for Rendez. Camp Carson City, Nev.

Notes: An error of -.021 (obtained by comparison with 2178 in Carson City in May 1877) is used for Cist. Bar. 2159 until August 21, and of -.009 (obtained by comparison with 2178 in Carson City in November 1877) is used from August 21 until the end of the season. Error of Attached Thermometer of 2159 = +0.8 obtained in Washington in 1876. The error of -.014 is applied to 2158 whenever that barometer is used, and was obtained by comparison with 2178 in May 1877. Error of Attached Ther = +1.0 obtained in Washington in 1876. The Virginia City Array Curve is used throughout the season.

NOTE.—Transcript to be compared by Chief of party with original record, and forwarded, when book is filled, to the Office of the Survey. Fill out, in the field, columns Nos. 1, 2, 3, 4, 9, 11, 14, 15, 17, 18, 19, 20, 24, 25, 26, 27, 28, 29, 30, next following record whatever may have been crowded out of the column of remarks concerning the preceding place of observation.

and 31. Separate the observations at each place from those at the next following place by leaving two or more lines between them. On the first of these lines record in red ink the means of the preceding set of observations.