

Monday 13
fore rainy
cloudy

Busy making determinations of irregularity of pivots of transit. Observed at night for time but being very cloudy got only a few stars.

Tuesday 14
cloudy
light rain

Busy computing. In afternoon set up & adjusted the zenith telescope preparatory to beginning latitude observations. Frequently during the day or in the evening I would take a walk but the pest of mosquitoes make such an attempt anything but a pleasure and hence prefer the tent where one is if not wholly nevertheless considerably shielded from the exasperation. -

McDonald the telegraph agent took supper with us being on his way to horse to look after the agent's instruments there - their connections as that is the cause apparently of frequent "breaks" in the line. - Rain and clouds prevented any observations tonight altho' I made the attempt. -

Wednesday 15
rainy
npt 28° F

About a week ago numbers of the potato patches on the reserve were badly nipped by the frost - the bushes being quite black. Late in the evening the clouds lifted and the stars shone. Quickly I repaired to the observatory and began my latitude observations. After beginning I got every pair of stars thereafter 19 in number having missed the first two pairs through clouds. To bed I went at sunrise. - That we had a heavy frost is apparent from the temperature given in the margin. There was a thin coating of ice in the washbasin outside of the tent. - The northern lights were very brilliant tonight; beginning in the north and spreading to and over the zenith till they fully passed the equator, then lifting in the north they hung like a living animal above us - quivering as if their life hung upon a thread - dancing as if overjoyous of their existence and again fleeing as if pursued by some magic spirit; and though all the stars steadily shone with undiminished lustre. - At a time from the northwestern horizon emanated what appeared to be dense white clouds of smoke as if some Moscow were being consumed, but it was that mysterious subtle body & phenomenon the aurora borealis. To me this is one of the most mysterious phen-

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quies in nature. Its affinity with terrestrial magnetism & electricity is known to science and probable connection with solar disturbances, but these facts are far yet from unravelling to us the forces that guide it and color it for of various hues it appears (mostly white then greenish & reddish). No matter how dense it appears like heavy white clouds yet the transparency of the atmosphere is scarcely not affected. - Most peculiar & strange. - Going outside of the observatory ^{during the interval} between two pairs of stars I will almost tempt to remain here & watch the ^{beautiful} phenomenon & miss my pair of stars. - It was grand. -

Thursday 16
fine

Today my diary is 22 years of age and not a day missing. - I made determinations of the value of my two levels. - At night observed for latitude & got 20 pairs - foolishly missing the missing pair by pointing of telescope first south instead of north. -

Friday 17
fine

Busy writing & computing as usual in the afternoon, and made some more level determinations. It is only when one comes to make refined observations that we discover the inaccuracies and eccentricities of good instruments. To me they are interesting investigations. - At night observe & get my complete programme of 21 pairs of stars.

Saturday 18
very warm

The "bull dogs" (flies) are most troublesome now. Twilight and heat bring them forth and when I must rock them to sleep the festive mosquito often renews vigor and thereby keeps up the eternal nuisance & army of flies. At my morning "devotions" I generally build a smudge so that that necessary recreation may be done without extreme torture. Toward evening make some more level determinations. - The night was cloudy, windy & followed by a thunderstorm so that I only got seven pairs of stars & some of these not very well.

Sunday 19
fine
warm

Marie's Birthday

I had fondly hoped that I could be at home on this auspicious day to greet my dear Marie, but circumstances prevented such. Our three good boys will undoubtedly wind garlands & strew flowers