

May *mensuratio*,

Wednesday 2
very windy
cloudy

Busy writing, computing, studying. -
So cloudy to observe tonight. - Today I received a
photograph of my ^{8 1/2"} reflector which I was to have had
for my work here, but not being ordered in time
could not be finished (some additions - the telescope itself
was "on hand"). I am most anxious to swap
the heavens with it.

Thursday 3
pleasantly

Busy writing, studying. - In the afternoon at Dur-
mond's request I visited with him a clay deposit in Peter-
suis creek in reference to its value for fire brick. There is
not much of it & besides it is too shaly.
The night was as good as could be desired. Besides getting
transits I attempted to observe the phenomena of Jupiter's sat-
ellite II - Transit ingress - shadow eq. & Transit eq. -
but the first two were totally invisible and the last one
just became visible as a "waal" on the limb ^{ten} min-
utes after its actual transit (as given by the ephemeris)
and it was not till fully 20 minutes after such transit
that the satellite was distinctly seen as separated from
the planet. Hence this observation is totally useless
for determining longitude. My limited experience with
Jupiter (using 3 1/2" reflector) is that all phenomena
save eclipses have or are of next to ^{no} value at all;
and even eclipses are at best but approximate.
Transits of the moon and neighboring stars are in my
opinion the most accurate, the easiest obtained & hence
the most desirable method of obtaining the longitude
where the electric telegraph is not available.

+ Jupiter's limb
was "boiling", which
added to the diffi-
culty

Friday 4
windy
warm

Busy studying etc. - The night was fine & I began my last
night's work. About midnight Dr. Ferrero & Durmond visited
me; I showed the doctor the heavens with the equatorial
transit. After obtaining transits for time I immediately
commenced packing the transit & tripod. - About 4 A.M.

May

I observed the immersion of V. Aquarii, but as daylight was rapidly advancing I feared that I would not see succession of it nor the immersion 3 minutes later of V. Aquarii, and so it turned out although the sky was clear, but the sun had already risen, so of the phenomenon I obtained only the first. I had all the instruments packed and I went to bed at 5-50 a.m.,

Saturday 5
June

There being quite a little excitement here at present in reference to the discovery of coal Mr. M. J. DeLoach drove me to the mines this afternoon. They are about 3 miles from Kauloos on Guerrier's creek, & two claims are taken up, one by old Guerrier & the other by J. S. Graham. The drive leads over ^(more picturesque hills) than useful. Lately the manager for Graham had run in a drift about 25 ft nearly in an East west direction. But I found first a thick layer of argillaceous sand or arenaceous clay soft enough to be very easily cut, then a layer of blue clay then layers of lignite interbedded with pipe clay, the coal varying from an inch to 18". The north side of the drift dipped east & the end (west end) north, that is the veins dipped NE. This drift cuts the veins whereas Guerrier's, close by & running nearly at right angles to it, follows one vein only & nearly so. — I dispelled I think their idea of a "slide" having occurred & referred the tilting to an upheaval. Apparently by captivated eyes & opinion were appreciated, altho' I told them that circumstantially I saw little money in a coal mine there even should they strike a good seam, which they had not as yet. — Returning that was a fine snow capped peak up the North Thompson continually