

April were out of the question.

Saturday 28 Busy computing and studying. The night was cloudy and although I remained up till 3-30 AM I could do no observing.

thin dark morning  
Sunday 29  
fine

Busy writing, reading and finished a "paper" I wrote on "Descriptions" which I intend presenting at the meeting of the Association of P.L.S. During the day the sky was fairly clear but as evening and the night advanced the clouds gathered & thickened, and by 1 a.m. it was raining. Another night lost. — I am extremely disappointed with the weather here regarding cloudless skies — and had such beautiful nights here in Sep & Oct 1885. — Some of the older residents tell me that rain is far more prevalent this year than for many years past. — An American book agent Charles Gualeau is "doing up" the lawn handwriting, he is at my hotel, but up till last night had not dared to address me, when he did so he widely repaid for talking books. He is a German Jew — I had quite a chat with him. — He must be a poor man from whom <sup>one</sup> can not learn something.

Monday 30  
fine  
night cloudy  
a little rain  
A blue sky with a balmy breeze was most cheering on arising, but here nature generally reverses the order of things as accustomed to see in the East, there clouds generally disappear with the approach of night but here the contrary obtains. — Busy reading, studying. — No observations — too cloudy.

May  
Tuesday 1  
fine  
a little rain  
May Day was ushered in with a bright & gladdening face. A gentle breeze wafted perfume from the new leaved cotton woods along the river, that reminded me of camp on the plains in the spring, especially when it was

added the piping at eventide of the Thrush  
(*lucida migratoria*).

In the afternoon Mr. J. M. DeBosh showed me the  
duplex Worthington pumping engine which is  
used for filling the tank in connection with the  
lower village waterworks. The engine or pump  
rather has 10" stroke, 12" cylinder & can pump  
490 galls. per minute. The tank is on the  
hill to the rear of the tower 110 ft. above the  
street, is sunk in the earth, made of 6" white  
pine studded, with an air partition around  
it sufficiently deep for a man to repair them  
if necessary. The tank is covered by a roof  
and contains 35,000 gallons. - It is fed by  
a 5" pipe (wrought iron). The main in the  
street is 6" and 6 ft in the ground, small pipes  
inserted in boxes of sand or lead lead from it to  
the surface where people get their water, for  
fire purposes 3" pipes tap the main.  
Through a 1/2" nozzle and 100 ft of hose a  
stream was thrown 100 ft high. Should  
a fire occur the pumps would be used to  
give additional pressure. - The cost of  
the whole is \$16,000, and is owned by J. A. Clark  
& J. M. DeBosh who sell the use of water at  
20 cents per month.

The night was the first really good night  
that I have had since I am here, there was no obser-  
vation, I took transit for time & observed the  
eclipse of Jupiter's satellite II, although there was a  
halo around Jupiter (of his diameter) I saw the  
moon well till eclipsed, but this time seems at  
variance with my longitude by nearly 30 minutes,  
which at present is unexplained to me. It as the sky been  
not so clear & had I had a difficulty in identifying the satellite  
I would not be surprised, but the disappearance seemed  
to have been sudden, and attempts to find or see it afterwards

May *mensuratio*,

Wednesday 2  
very windy  
cloudy

Busy writing, computing, studying. -  
So cloudy to observe tonight. - Today I received a  
photograph of my <sup>8 1/2"</sup> 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 <sup>ten</sup> 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 <sup>no</sup> 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.