

SENATE.....No. 26.

REPORT

OF R. T. PAINE, ON ASTRONOMICAL SURVEY.

[COPY.]

BOSTON, Feb. 11, 1835.

SIR:

I avail myself of the earliest opportunity, after my return to the city, of reporting to the executive the progress made in 1834, in the Astronomical part of the Survey of the State, ordered by the Legislature.

At the beginning of the year, the pleasure was confidently anticipated of reporting before its close, to the Governor and Council, that this part of the survey had been performed; of this pleasure I was deprived by the singular and almost unprecedented state of the atmosphere during at least two thirds of the nights, between the 28th of last March, when my observations were resumed, and the 25th of October, the time of their discontinuance; a pro-

portion nearly twice as great as that in any other year within the last eleven, during which it has been my custom to make meteorological observations.

Of the nights that were favorable, every advantage was taken; indeed, such was my anxiety to finish the part of the survey assigned me as soon as possible, that in those apparently unfavorable, whilst hope remained of a clearer sky, constant vigilance was observed, however fatiguing or painful.

Although, sir, it is not in my power to say my portion of this truly great work has been performed, it is a source of much pleasure to me to be able to state that but little remains to be done.

During the past year *final* observations were made in Worcester, Northampton, Amherst, Springfield, Greenfield, Pittsfield, Williamstown, Taunton, New Bedford, Newburyport, Lowell and Salem, for the entire western, and nearly the whole of the southeastern and northeastern parts of the State. Observations were also made in Gloucester, Dedham, Homes Hole, Nantucket, and this City, which, with those previously made, will be almost sufficient for the determination of the position of those places.

The few points remaining to be visited, are the highly important light houses on Cape Cod and Cape Ann, Nantucket and Martha's Vineyard, which being of less easy access than the large towns in the State, have been visited only once or not at all, also the College in Cambridge; altogether in number less than one half that of the places *finally* visited in 1834.

I propose to resume the observations as early in the next month as the weather will admit, and it is hardly necessary for me to add, every exertion in my power

shall be made to finish them. The fatigue and not infrequent suffering arising from exposure to the air, at all hours of the night, without any protection, have rendered me most anxious to bring these observations to a conclusion, and to be able to present to the Executive my final report.

I am, Sir,

Very respectfully,

Your obedient servt.

R. T. PAINE.

To His Excellency, Gov. DAVIS.

