Thachers Island Feb 18th 1842

Sir

My remarkes on keeping a light in light houses and experiance for four years, I have made no use of the copper heators ~~nor~~ they are useless and do not answer the purpose they ware made for, the oil will congeal or freeze upon them in a cold night, and without the heator the lamps will cost less, I have made no use of stoves nor fuel it is a great injury to the light, it smokes the lantorn glass reflectors tube glasses and collects three times the ice and snow on the lantorn glass, which injures the light very much, a stove is a nuisance in a light house, it causes the lamps to over flow and the oil is wasted it keeps the lantorn full of smoke ashes ice water wood & coal and other trumpery all winter, Some may argue that a stove will keep the ice from congealing on the windowes, I expect it will in some places such as a warme counting room a shoe makers shop or a warm dwelling house, but it will not in a light house

I have asked all the light house keepers at Cape Ann, for what purpose they use stoves in the light house, they all gave one reason and that was to warm the oil and for no other purpose, I also asked them if it would not keep ice and snow from collecting on the lantorn glass, and they all say there will be dauble collect where ther is a fire

I have not had a stove in the light house for four years and the lamps has not over flowed during this time, My apparatus cost four dollas to a light house and it will last twenty years, Any light house keeper can put it up, and put it in operation, and keep the oil just such a heat as is wanted through the night

Over

for keeping oil warm where there is two teir of lamps I have a tin tube to reach from the top of the tube glass in the lower teir to the bottum of the lamps in the upper teir, And for heating the lower teir of lamps, I place a small lamp simuler to a nurse lamp under the lower teir upon a tin circle simuler to a round table which traverses round with the lamps, and when lit up and in opperation the lamp warmes each other oil to any heat that is requered

The two first winters I used the sedement oil in the small lamps and it answerd every purpos, last winter I used the same kind as was used in the other lamps, and kept account of what was burnt in the small lamps and it ammounted to three gallons to a light house this winter I have keep account and it does not amount to one gallon to a light house, I have no more smoke in the light house than you have in youre parlor with the same No of lamps.

There has been here the past summer a good many respectible influential men as there is in Cape Ann, I shaw them my plan of warming the oil and keeping the lanthorn clear of smoke and they all acknowledge it must be a better light and with less expence and do say that I had aught to be handsomly rewarded for it

I hope you will think this worth looking after, And if you will send some practical man here and stay with me two days I will pay all of his expences if he does not approve of my method of warming the oil and keeping the ice from congealing on the glass and keeping the lantorn clear of smoke, And if he says it is a good improvement I shall expect a compensation from the United States

When I used a stove I have seen the lanthorn glass so smoked in the morning you could not see a man

one hundred rods through the glass, and do believe it has
been the cause of most all the complaints of poor lights

I am respectfully
Your obedient servant
Charles Wheeler
keeper
of Thacher Island lights

S. Pleasonton
Fifth auditor of the treasury
& acting commissioner of the revenue