

To W. E. Pennington

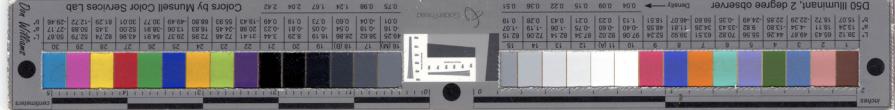
Dear Sir,

In compliance with your request I have examined the roof of the addition to the Philad<sup>o</sup> Library, and find that the evil complained of, arises from its peculiar form, and not from any want of care or skill in the execution of the work.

The center should be on the apex of the roof, instead of <sup>on</sup> the middle of the inclination — in other words, the exterior formation of the roof should be the same as the present form of the interior.

The expansive nature of metal roofing makes it impossible to form a roof that will hold water as a reservoir; the joints must be so put together as to admit of expansion and retraction; and at the same time to afford a free passage for the water; but in no case will a metal roof answer the purpose, if there be any impediment to dam up the water, so as to back it into the joints.

I would therefore recommend that the eastern part of the roof be made so as to



descend towards the east, in the same manner  
as the western part now descends towards the  
west, so as to bring the lantern on the apex,  
it may then be made perfectly tight -

Should it be found impracticable to obtain  
permission to turn the water on the adjoining  
property, I would recommend that the  
present form of roof be retained, ~~and~~ the  
lantern removed, and a flat sky-light  
made on the same plane of the roof, so  
as not to present any impediment to the  
free passage of the water.

A sky-light of this kind may be construc-  
ted so as to answer the purpose, but the  
first plan would be decidedly the best

Very respectfully

(Your ob. serv<sup>r</sup>)

M. W. Walter

Phil. Ap. 22. 1836





J. H. Walter

7447. F. 24

Mr. E. Pennington  
Rock City