

only one of the loftiest and most ennobling subjects that can engage the human mind, (in which we are all agreed), but it is at the same time one of the most fascinating of intellectual pursuits. Moreover, it is the one science above all others that offers almost boundless interest to the amateur, with the least possible labor, inconvenience and expense. Suppose, for example, you are minded to go in for chemistry for a recreation. You have first to learn something of the nature of the substances with which you propose to experiment, otherwise you are very apt to poison yourself, or blow yourself up. You have to provide yourself with a laboratory, and lay out a certain amount of money on an equipment, before you can make a start. So also with geology. You have to master a huge number of technical terms, to take long tramps, to climb mountains, to break your back cracking stones on a hot day. So it is with almost any science you can name. Even gardening has its inconveniences. But from astronomy you can derive an enormous amount of pleasure and satisfaction without straying from your own doorstep. Your equipment is provided for you. All you have to do is to lift up your eyes, and draw upon your powers of observation and reflection to a very limited extent. I do not deny that a telescope adds greatly to the pleasure of the study, but its cost need not be great, with proper care it will last a life time, and in any case it is not indispensable. Let us begin without one.

And now you are placing yourself under the guidance of one whose acquaintance with the things of which he is going to speak is of the most elementary character; who is possessed of no technical knowledge of astronomy; who has long ago forgotten the little mathematics he learned when a boy; whose life has been spent in earning his living, in pursuits far removed from the stars; but who from a child has accustomed himself to lift up his eyes and behold the wonders of the heavens; whose ears have not been quite deaf to the music of the spheres; and whose artistic tastes not wholly indifferent to the masterpieces of creation. Do not be afraid of getting beyond your depth—I could not lead you there if I wished. Nor do I propose to say

anyth  
perfe

I  
scious  
moven  
him if  
reache  
horizo  
requir  
stars d  
our mi  
twenty  
whole

Br  
— it m  
cigar, a  
appear.  
“ like  
perhap  
evening  
there.  
appears  
breadth  
farther  
the hea  
this m  
one's ey  
deduce  
one. I  
piece, a  
revoluti  
account

The  
firmame  
round t