

in mind that the progress of science is so rapid that what seemed the most profound learning a few years ago, may to-day be merely an exploded fallacy or an obsolete theory.

Nor is the hymn free from ground of criticism, in its assertion that all the heavenly orbs move round this "dark terrestrial ball;" but it is curious and instructive that the emendation of the scientific critic is equally faulty, for, though the planets move round the "splendid solar ball," the stars do not—a singular exemplification of the difficulty of avoiding error even in the most simple scientific statements, when these are expressed in poetical language, or used in illustration of spiritual truths.

But what of the old Hebrew poet whose production has led to all these difficulties? Did he go astray in his astronomy, or did he avoid altogether the scientific snares amidst which it seems he was treading? We shall find that he, looking altogether at natural appearances, and sublimely ignorant of any theory, has avoided the blunders both of his copyist and his critic:

"The heavens declare the glory of God;  
And the expanse proclaimeth his handiwork,  
Day unto day uttereth speech,  
Night unto night sheweth knowledge.

\* \* \* \* \*  
In them hath he set a tabernacle for the sun,  
Which is as a bridegroom coming out of his cham-  
ber, and rejoiceth as a strong man to run a race. [ber,  
His going forth is from the end of the heaven,  
And his circuit unto the end thereof;  
And there is nothing hid from his heat."

This language is bold and poetical; but it affords no peg whereon to hang any criticism similar to that to which the modern poet has subjected himself.

My notice of this little matter is not a digression. It is at once an example of the superiority of the Bible to the attacks levelled against it, and of the fact that the friends of the Bible needlessly provoke these attacks; and it further raises the question, What have we a right to expect of a divine revelation in its treatment of nature? and, How does that treatment stand related to modern science? To the answers to these questions I shall devote the remainder of this introductory lecture, and shall discuss: first, the most general aspects in which the Bible is related to science; secondly the connection between the Bible and science arising from the relation of monotheism to our conceptions of the unity of nature; and, thirdly, the connections arising from the ideas of law, order, and plan in nature which are common to the Bible and to science.

#### THE ATMOSPHERIC HEAVEN.

In Smith's Bible Dictionary, for instance, in an article on Heaven over the initials of

an eminent English scholar, but which may be affirmed to contain as many inaccuracies, scientific and scriptural, as could well be compressed into the space it occupies, we find it stated that it is clear that Moses meant a "solid expanse," "a firm vault," supported "on the mountains as pillars;" and in a popular book on "Myths," by a gentleman of some reputation in America, I find the quaint and ridiculous translation—not, however, altogether original—"And, said the Gods, let there be a hammered plate in the midst of the waters." The existence of such notions warrants a little enquiry as to the precise state of the case—enquiry which might otherwise appear a needless waste of time and an insult to your intelligence.

That the idea of extension rather than of fixity is conveyed by the Hebrew term, is implied in the frequent use of such expressions as the "stretching out" of the aerial heaven, and the comparison of it to the curtain of a tent. In connection with this, and in itself a beautiful conception taken from the motions of the clouds, is the New Testament figure of the "rolling up of the heaven as a scroll." Nor is the idea of any secondary machinery, like that of a solid vault, at all congenial to the spirit of the Scripture treatment of nature, which refers all things directly to the will of God. Further, this idea, however it may have been applied by the philosophers of antiquity to the explanation of the starry heavens, could not commend itself to men familiar with nature, or indeed to any man who had ever seen a cloud form upon a mountain's brow or discharge itself in rain.

The expressions of Scripture which have been quoted in support of this fancy are, indeed, either mere poetical figures, having no such significance, or refer to something different from the atmospheric firmament. Of the first class are the following: "He bindeth up the waters in his thick cloud, and the cloud is not rent under them,"\* a thought which has much natural truth, as referring to the weight of the atmospheric waters. So, in like manner, the mountains are the "pillars of heaven," as holding the atmospheric waters on their cloud-capped summits. So also the sudden descent of the thunder-storm or the water-spout is the "emptying of the bottles of heaven" or the opening of its hatches or "windows," while the gentle rains are said with equal truth to "distil" upon the earth. These are all expressive figures, dealing with the natural appearances of things, and implying no theory as to the constitution or laws of the atmosphere.

Of the second class is that remarkable vision of Moses,† wherein he sees God sitting on a pavement of sapphire, and com-

\*Job xxvi. 8.

†Ex. xxiv. 10.