

General Science and Miscellany.

PROFESSOR MITCHELL ON BIBLICAL ASTRONOMY.

Professor Mitchell delivered another of his series of lectures on Biblical Astronomy, in the Hope Chapel, last evening. As was the case on former occasions, his audience was large, and he was listened to throughout with great attention. During the evening, he read a variety of extracts from the Book of Job, and commented upon them in his peculiarly eloquent style. In reference to the allusion to the foundations of the earth, the lecturer inquired where are its foundations—by whose power is it guided—who supports it? Who is it that keeps it steady in its career, and causes it to subserve the great objects for which it was designed? We know not—it is impossible for us to answer. If we ascribe it to the power of gravity—what is it? It is the expression of the will of God. We can't go beyond that, and having reached a certain limit, we find that the human mind can't go beyond it. Again, "Hast thou commanded the morning since thy days, and caused the day-spring to know its place?" &c. Hast thou so constituted the earth that it shall revolve for ever and ever with perfect uniformity, and cause the day to know its place with absolute certainty? Here he said, we have a remarkable allusion to the most wonderful facts connected with the history of the world. If the axis of the earth was not perfectly stable, then the day-spring from on high could not know its place, nor would there be any certainty in regard to the rising and setting of the sun, nor any uniformity in the seasons. Of the millions of axis which may be drawn through the earth, there is but one of them all on which it can rotate, so that it will preserve its position and cause that uniformity which we possess. So uniform is that rotation, that for two thousand years, it has not varied the one hundredth part of a second. But is it necessary that this motion should be uniform? He should say no. There is no planet which moves with perfect uniformity, but in the motion of the earth on its axis, there is absolutely no change. Suppose that in launching the earth into space, it had been established as a law that it would be perpetually losing a small amount of its velocity in its rotations, what would be the result? It would lose from time to time, and in the end, its destruction with that of all life, on its surface would be the consequence. If on the other hand the velocity of its rotation was increased, what would be the result? The whole mass would disintegrate and portions be thrown off at the equator. But God has given us a guarantee that these changes will not take place—he has guaranteed as on the right as well as on the left.—*N. Y. Paper.*

THE ROLLING STONE GATHERS NO MOSS.—A very sensible little item against the universal all-pervading disposition of American farmers to migrate—a disease that is often destructive to

life, very often to health, more often to comfort and happiness, and still more often to a systematic course of improvement, by which the "old homestead," that is abandoned on account of its unproductiveness, would become fertile again, and yield a greater profit than some of the rich lands of the west.

VENTILATION.

We copy from the *Globe* a brief outline of a Lecture on the important subject of *Ventilation*, delivered at the Mechanic's Institute of this city, on Friday the 30th ult., by H. Ruttan, Esq.—

There was an audience of upwards of 100 persons, including a good many ladies. Mr. R. began by describing what pure air is, and then proceeded to show the manifold causes of impure air, which consists not only in that expelled from our lungs in breathing, but is generated also by exhalations from every animal or vegetable matter, decayed or otherwise, which is found in our houses, streets or fields. But if it is said we must take the air as it comes to us, that is sheer nonsense, for the same thing might be said regarding water. There is pure and impure of both, and as no sane person would drink of filthy water merely because it was the first at hand, but would look for clean, so it is as insane for people to take no heed as to the qualities of the air they breathe. The Lecturer after reading extracts from Liebig and other authors, showing how impure air was generated and what were its pernicious effects it breathed, proceeded to speak of the different means which have been employed to disperse this impure air, and to supply it pure, in other words, ventilation. He blamed architects for their total inattention to this most important part of their duty. As medical men are required to have a knowledge of the anatomy of the human body, so ought architects with respect to the anatomy of houses; but in this so-called utilitarian age there are very few houses built that can be inhabited with comfort. Architecture has been retrograding these last 3000 years. Many of our Canadian churches are proofs of it. Large sums are expended on fine Gothic churches, with roofs 50 or 60 feet high, and which can never be made comfortable (not to speak of the minor inconveniences of not heating the preacher), while by having a flat and at the same time a lower ceiling with a proper system of ventilation, these defects would be remedied and less debt burden the congregations. Then in dwelling houses, bed rooms are so placed and furnished, that it is wonderful how we escape the bad effects with so much impunity. They are put at the top of the building towards which all the impure heated air from kitchens and sitting rooms ascend. The carpets and curtains, and such like furniture, collect noxious particles of all sorts that do their share in vitiating the air. Bed rooms ought to be as bare as possible, and especially sick bedrooms. Indeed, carpets should be used in no room in any house. They are uncleanly, and consequently unhealthy. Kitchens ought not to be under sitting or bedrooms, but in out buildings; neither ought vegetable or animal food to be kept in any cellar under the house. By his plan the inconvenience of the present method is obviated, which by admitting the current from below, diffuses air little if any different from that which it expels. He did not enter into the details of his new plan, nor show how the natural direction of heated air upwards was to be overcome, giving as a reason that it would be too dry for a mixed audience. The lecturer was much applauded during the reading of his very interesting lecture, which occupied upwards of an hour.