different kinds of salt. The writer appears to doubt the correctness of Professor Beck's statements, upon the ground that the Turk's Island and Liverpool salts are preferred by beef and pork packers and farmers to the Onondaga, although the latter salt is represented to be purer than either of the former. The fact of this preference is well known and allowed, but it does not militate against the accuracy of the analysis in question, as the writer of the observations in the Buffalo paper seems to think. The preference given to the former varieties is based upon experience; they have been found to be the best preservatives of meat, &c., although by no means the purest kinds of salt. For the antiseptic properties of salt are not in direct proportion to its purity. Indeed it would appear that perfectly pure salt, without any admixture of other saline substances, does not answer well for preserving meat. In illustration of this fact, I cannot do better than extract, from Darwin's Voyage of a Naturalist, the following passage, in which the author is describing the salt procured from a large salt-lake or salina he visited near the town of Patagonis, on the Rio Negro. "This salt is crystallized in great cubes, and is remarkably pure; Mr. Trenham Reeks has kindly analyzed some for me, and he finds in it only 0.26 of gypsum and 0.22 of earthy matter. It is a singular fact that it does not serve so well for preserving meat as sea-salt from the Cape de Verd Islands; and a merchant at Buenos Ayres told me that he considered it as 50 per cent. less valuable. Hence the Cape de Verd salt is constantly imported, and is mixed with that from these salinas. The purity of the Patagonian salt, or absence from it of those other saline bodies found in all sea-water, is the only assignable cause for this inferiority; a conclusion which no one, I think, would have suspected, but which is supported by the fact lately ascertained, that these salts answer best for preserving cheese which contain most of the deliquescent chlorides."

The purity of this Patagonian salt, as the reader cannot have failed to remark, exceeds that of the Onondaga article. Hence we have, I think, conclusive evidence that the purest salt is not the best for the purpose of preserving meat. Consequently the results of Professor Beck's analysis are not at variance with the generally entertained opinion of the superiority of the Turk's Island and Liverpool salt over the Onondaga.

Toronto, June, 1849. N.

THE ISOLATION OF THE EARTH IN SPACE.

"He stretched out the north over the empty space, and hanged the earth upon nothing."—Job xxvi. 7.

It is not easy to conceive the entire isolation of the earth in space. That it does not spread out its dimensions into the abysses of the universe, until at length it attains some immoveable basis upon which it may repose—that it rests on no pedestal, *hangs* upon *nothing*—floats in space, not being buoyed up—and not being supported does not fall,—are ideas which lie at the foundation of all our knowledge of the wisdom and power of God in the universe; but to *realize* which it is necessary that we approach them if not by the steps of a rigid demonstration, at least by those of a gradual progression. They are indeed but elementary deductions of science; but not to be arrived at, until many false perceptions have been purged away from the eye of the mind, and the evidence of much experience presented to the understanding.

When we look forth upon the earth, it appears to be a surface broken into hill and dale, but everywhere *terminated* by the margin of that vast concavity of the heavens which is stretched out above us; and when we are at sea, we seem to be upon a circular plain of water, whose limit is no where far distant from us.* That error which assigns to the earth and to the heavens the boundary of the visible horizon, *corrects* itself indeed immediately that we travel from place to place; but how are we to free ourselves from the other error? Go where we will, we seem to be moving on a flat if not an even surface—we appear no where to be descending the sides of the earth, or climbing on its acclivity; and an impression of our senses irresistibly grows upon us that it is an extended plain. Astronomy tells us of a huge sphere self-supported in the space of the heavens, and of that space stretching forth interminably and immeasurably. How shall we realize this idea, and reconcile it with what we see?

Let us suppose a traveller, impressed with the belief that the earth is a plain, to set out and travel continually in the same direction in search of its boundaries. Travelling on until he meets the sea, let him embark upon it and traverse it until he again encounters the land; thus continuing his forward course unimpeded by any of the natural obstacles on the earth's surface. Never will he find any termination to it. Go where he will, still sea or land will lie open before him. There is no limit, no boundary, no interruption of its continuity; no chasm in it, no elevation extending itself into infinite and unknown regions of space—no greater obstacle than a mountain—no more impassable space than a valley, a lake, a river, or a sea.

His first conclusion would be, that he was travelling on a surface of infinite extent. After a time, however, this conclusion would correct itself, and he would perceive, to his amazement, that, although he had travelled on, continually away, as it seemed to him, *from* the region where his journey began, this onward journey had nevertheless brought him back to that region again. Has he then unconsciously turned round and retraced his steps? On this point he may assure himself, and he will find that, without ever turning backwards, or deviating from his course otherwise than perhaps to the right or the left of it, he has yet returned to the place whence he set out.

But a very slight exercise of his judgment will be sufficient to shew him, from this fact alone, that the earth's surface is not one extending *infinitely*, at least in the direction in which he has travelled, nor bounded by any edge or limit; but, like the surface which encloses a solid body, continuous, and returning into itself.† If this were not the case, the farther he travelled in the same direction, or towards the same direction, the farther he would of necessity have receded from the point at which he set out; and he could never, travelling as he did, have reached that point. Thus, if I see a fly making a journey across my table with his head always in the same direction, or deviating only to the right or left of that direction, it is manifest to me that he continually recedes from his starting-place, at least as long as he remains upon the upper surface of the table. To reach it again, thus continually advanc-

* If the eye be placed at a height of about ten feet from the surface of the water, the horizon is distant from it, in every direction, between four and five miles.

† Not, for instance, a surface like that of the page on which this is printed, lying flat, and terminated by an edge; but like that which it would have if it were rolled up so that its opposite edges met and were perfectly joined.