

warm, and this condition is increased during several days of cloudless and calm weather. The rays of the sun striking the land evolves heat which, when not carried away horizontally, is continually increased. The heated and rare air rises towards the mountains until a cold strata of air is reached, and this air, being of greater pressure, forces its way to the space occupied by the air below. Every oarsman has noticed the little whirlpools which follow the displaced water made by a stroke of his blade. When a lighter volume of air gives way to a heavier current, there is a displacement, not of the whole volume of air, but part of it. The rushing of the cold air towards the highly-heated and rare air of the valley may take a circular motion, and thence form a whirlwind; and this motion may develop a current of electricity which will accelerate it. The cyclone will shoot through the valley like an arrow, though it may be deflected in some instances by certain elevations, but the general course will be in the line of the air made rare by heat or displacement. I have made meteorology a study for several years. These remarks on the subject are too brief to give a clear idea of the cause of winds, cold and mild seasons, &c. If this work meets the sale which I hope it will, I will write an essay on the subject, and publish it, so that the people may be able to form a forecast of the weather, and thus be on their guard.

Although it is somewhat aside from the main subject of this essay to refer to the cause of wind currents, yet I have done so, in order to show that, just prior to the emergence of the continents above the level of the waters which formed the deluge, there was an unusual calm over the earth, then enveloped with water. A little reflection will convince a man of good understanding that, after the flood had been on the earth, the temperature of the air would be more uniform than the temperature of the air of the Pacific ocean. There would be a gradual variation in the temperature of the air from the equator northward and southward to the poles, but it would be so gradual that less wind currents would disturb the surface of the waters than the wind currents which disturb the vast spread of the placid Pacific ocean.

When the ice from the north frigid zone moved south, followed by what was the arctic regions, and the antarctic regions moved north, so as to occupy a position over which the sun would be vertical once a day, there would be such an unevenness of the temperature of the water that there would be wind currents. There would be fogs, or the ascension of vapor, and an unusual fall of rain, but there would be no wind storms like those

formed by the change of pressures through the heating of air on the continents. But gradually the ice would melt, and the waters would mix and become more uniform in temperature. The variation from the equator would hardly be perceptible. Evaporations would cease. The sun would shine over the watery waste in undimmed splendor. The surface of the water would appear like a sea of smooth glass. An impressive stillness would reign everywhere, not like the stillness which impresses a man when he is alone on a lake in a dense forest, when there is not a breath of wind sufficient to stir an aspen leaf, so that the lake becomes a mirror to reflect the trees near the water's edge, but a similar stillness of water, where nought could be seen beyond the ark which floated on the waters of the flood. How often have passengers in the broad Pacific ocean stood on deck and gazed on the vast expanse of waters which seemed to be inclosed in a circle, where the sky touched the visible horizon; but they felt that the ship was staunch, and that by sailing two or three thousands of miles beyond they would reach land. But as yet for the ark there was no harbor. Still, Noah had faith in God, for when He commanded him to take animals into the ark, to keep seed alive until the flood abated, he obeyed. Now that the ark had ceased to roll, how reasonable that Noah might think that the waters had abated, so he sent forth a raven, but it did not return. It would seem that it had found a floating carcass of some huge beast which had floated to a point where the raven could reach it. As the animals were carried to the new arctic regions, it would first freeze before it floated south, to become a resting-place, and food for the raven. Next he sent forth a dove, but the waters still covered the earth, and she returned to him, and he put forth his hand and took her in. After seven days more, he again sent forth a dove, and it returned with an olive leaf plucked off. Then he knew that the waters were abated.

When the ark had rested on the mountains of Ararat, the centrifugal force was slowly yet surely upheaving the new continent. It must attain a certain height before there would be an even balance between the force of gravity and the centrifugal force. It has been shown that the centrifugal force uplifts the governor balls of a steam engine to a certain height, and, if the motion which produces the centrifugal force is uniform, they will remain at that height, but if the motion is lessened, they will fall a certain degree, according to the ratio of the lessened motion. Now, it is known that the rotary motion of the earth is uniform, so that after the continents attained a certain height, they would remain at that