

crystallize on solidifying, undergo a slight enlargement in the act of becoming solid. A crust, therefore, began to form over the liquid planet. Like ice on the lake, it floated. If you go to the crater of Kil-au-e'-a, in Hawaii, you will find a vast lake of molten rock, the surface of which has frozen into a crust like that which formed over the earth's surface. There is no mistake in the opinion that the cooling crust would float.

The tidal protuberance caused by the moon never ceased. The side toward the moon was always uplifted. As the earth turned on its axis, a different part of the terrestrial surface was raised at each moment. The great tidal swell swept past every point of the surface at every revolution of the planet. Thus the forming crust was alternately uplifted and depressed. Much fracturing of the crust must have resulted. The crushing and grinding of the fragments displaced them; great lateral pressures tilted them on edge and piled them up in enormous hummocks. The scene must have been analogous to those in Baffin's Bay and the Arctic Ocean, of which explorers bring us exciting accounts. The surface of the earth assumed the rugged character of a vast "floe."

I imagine this floe was still luminous, except in the projecting crags. Over this still glowing terrestrial surface, sunlight was still shed. Who can calculate the length of the æons which passed while such a scene of desolation reigned? It was, indeed, destined to reach its end; but only through the transformation of an age of terrific violence. All the time, the process of cooling went forward. While the white-hot crust subsided to a red-hot temperature, the atmosphere became less parched. While the shadows of a darkening crust tipped the most salient crags, the upper air grew continually freer from the terrific heat which had swept outward from the terrestrial surface. As the temperature of the air subsided, there were precipitations of various substances which could maintain their gaseous condition no longer. At length it came the turn of water to begin to condense. It had long, already existed as an invisible gas. Now, with an upper air