

plains, through the later strata, and in some cases, a thousand feet into the long-buried formations of the primitive Cordilleran Land.

XLVII. THE REIGN OF ICE.

CONTINENTAL GLACIATION.

THE gradual enlargement of the continent had brought it now to the condition in which man was destined to make its acquaintance. The gradual advancement of organic improvement had now reached a stage where the next step must bring man upon the theater of life. Even the animals which man was destined to domesticate were already on the earth, and awaiting the advent of their master. The forests too, had assumed the aspect which was to become familiar to man, and seemed to stand expectant of the being so long promised. The whole earth seemed ready for that final stroke which should consummate organic improvement, justify the physical preparations through æons in progress, and explain nature's long-continued appeals to intelligence and taste which had not been in the world.

But nature must yet pause. The continents intended for civilized man lacked something yet to fit them for his advent. Throughout Asia, Europe and North America, the continental surface had become deteriorated by erosions and wastage taking place during the reign of mammals. The land had been set apart for the use and convenience of this dynasty, and in their service it had been exhausted. Each of the great dominant dynasties in succession, had the continents for their use, and in their behoof they were worn ont. For each new dynasty a renovation was demanded. At the present juncture, the soils had been reduced through wastage, to the condition which we plainly see approaching again under the actions exerted during the human reign. The rivers, long confined to the same channels, had excavated deep gorges. Retired in these their evaporation was checked, the clouds were starved and the soils were robbed of their rains. Every tributary