

whereas with the dawn of the Secondary period we find the immaturities of the vegetable kingdom reduced to a bulk and size that consort better with the palpable inferiority of their rank in creation. And not only are the styles and characters of the several periods of the geologic register thus various, but, as in the English register of my illustration, the record of the rise and fall of septs and families is singularly distinct. The dynasties of the crustacean, the fish, the reptile, and the mammiferous quadruped, succeed each other in an order as definite as the four great empires in the "Ancient History" of Rollin. Nor are the periods when single families arose and sank less carefully noted. The trilobite family came into existence with the first beginnings of the Palæozoic division, and ceased at its close. The belemnite family began and became extinct with the Secondary formations. The ammonite and gryphite, in all their many species, did not outlive the deposition of the Chalk. There is one definite period, — the close of the Palæozoic era, — at which the Brachiopoda, singularly numerous throughout many previous formations, and consisting of many great families, suddenly, with the exception of a single genus, drop off and disappear. There is another definite period, — the close of the Secondary era, — at which the Cephalopoda, with nearly as few exceptions, disappear as suddenly. At this latter period, too, the Enaliosaurians, so long the monster tyrants of the ocean, cease forever, and the Cetacea take their places: the be-paddled reptiles go off the stage, and the be-paddled mammalia come on. But perhaps the most striking series of facts of this nature in the whole range of geological literature, is that embodied in the table affixed by Agassiz to his great work on fossil fish.

This singularly interesting document — which, like the annual balance-sheet of a great mercantile house or banking