

natural classification. "The cartilaginous fishes," he says, "appear to belong to each other, and are also usually arranged together; yet amongst them we find those species, such as the Lampreys, which obviously occupy the lowest grade of all fishes, while the Sharks and Rays remind us of the Reptilia." And so, sinking the consideration of texture altogether, he placed the family of the Lamprey, including the glutinous hag, at the bottom of the scale, and the Sharks and Rays at the top. Agassiz's system, peculiarly his own, has had the rare merit, as I have shown, of furnishing a key to the history of the fish in its several dynasties, which we may in vain seek in any other. His divisions,—if, retaining his strongly-marked Placoids and Ganoids, as orders stamped in the mint of nature, we throw his perhaps less obviously divisible Ctenoids and Cycloids into one order,—the corneous or horn-covered,—are scarcely less representative of periods than those great classes of the vertebrata, mammals, birds, reptiles, and fishes, which we find not less regularly ranged in their order of succession in the geologic record than in the "Animal Kingdom" of Cuvier,—a shrewd corroboration, in both cases, I am disposed to think, of the rectitude of the arrangement. What seems to be the special defect of his system is, that having erected his four orders, and then finding a certain number of residuary families that, on his principle of cuticular character, stubbornly refused to fall into any determinate place, he distributed them among the others, with reference chiefly to the totally distinct principle of Cuvier. Thus the *Suctorii*, soft, smooth, slimy-skinned fishes, that do not possess a single placoid character, and are not true Placoids, he has yet placed in his Placoid order, influenced, apparently, by the "perception of resemblance that has *cartilage* for its central idea;" and the effect has been a massing into one anomalous