

ral type of tail ; the lower lobe is, we find, composed, as in *Spinax* and *Scyllium*, of rays exclusively ; while through the centre of the upper lobe there runs an acutely angular patch of lozenge-shaped plates, like that which runs through the centre of the double fins of *Dipterus* and the Cœlacanth. But while in the sharks the gradually diminishing vertebræ stand out in bold relief, and form the thickest portion of the tail, that which represents them in the sturgeon (the angular patch) is slim and thin, — slimmer in the middle than even at the sides ; — in part a consequence, no doubt, of the want, in this fish, of solid vertebræ, but a consequence also of the extreme attenuation of the nervous cord, in its prolongation into the lobe of the fin. Further, the rays of the tail — its peculiarly ichthyic portion, which are purely mucoid in *Spinax*, *Scyllium*, and *Cestracion* — have become osseous in the sturgeon. The *fish* has *set* and become *fixed*, as cement sets in a building, or colors are fixed by a mordant. And it is worthy of special remark that, correspondent with the peculiarly *ichthyic* development of tail in this fish, we find the prevailing ichthyic displacement of the fore limbs. Again, in the *Lepidosteus*, another of the true Ganoids which still exist, the internal angle of the upper lobe of the tail wholly disappears, and with the internal angle the prolongation of the nervous cord. Still, however, it is what the tail of the sturgeon would become were the angular patch to be obliterated, and rays substituted instead, — it is a tail set on awry. And in this fish also we find the ichthyic displacement of fore limb. One step more, and we arrive at the homocercal or equal-lobed tail, which seems to attain to its most extreme type in those fishes in which, as in the perch and flounder, the last vertebral joint, either very little or very abruptly diminished in size, expands into broad processes