

work; and a *vomerine* bone, with teeth, from Tilgate Forest, in *Lign.* 131, fig. 3. In the last fossil there is a median row of flat, elongated, transversely arched, smooth, glossy teeth, with a double alternate row of small sub-circular teeth on each side, attached to the bone, which is imbedded in Tilgate grit. Specimens of this kind, of several species of *Pycnodus*, are not uncommon in the Wealden of Sussex: they were among my earliest discoveries in Tilgate Forest (*Foss. Til. For.* pl. 17, figs. 26, 27.). Examples occur in which all the teeth are shed, and the bony plate of the vomer alone remains.

*GYRODUS.* *Lign.* 134.—In another genus of the *PYCNODONTS*, termed *GYRODUS*, the crowns of the teeth are deeply furrowed, the structure of the dentine is very dense, and the pulp-cavity large and simple. One species occurs in the Speeton clay of Yorkshire, and another in the Sussex chalk. As in *Pycnodus*, the teeth are distributed in rows on the bones composing the roof, floor, and sides of the mouth.

These characters are beautifully displayed in the Russian specimen, *Lign.* 134. This interesting fossil was presented to me by Stephen Cattley, Esq. who collected it in 1839, in a valley near RJEFF, a village on the banks of the Volga. Mr. Cattley informed me “that many fossils are found in that and the neighbouring valleys, and the locality is frequented by Russian geologists, when the season permits; which is but seldom, owing to the long