

small group of Lampreys and Hagfishes represents the lowest Craniota ; and although much specialized as a side-branch of the main-stem from which the other Craniota have sprung, they give us an idea of what the direct ancestors of the latter must have been like :—still without visceral arches, without jaws and without paired limbs ; with a persistent pronephros ; the ear with one semicircular canal only ; mouth suctorial ; cranium very primitive ; and the metamerism of the vertebral column indicated only by little blocks of cartilage in the perichordal sheath. Such creatures must have existed at least as early as the Lower Silurian epoch ; but until 1890 fossil Cyclostomes were unknown. Their life in the mud, or as endoparasites of fishes, coupled with their soft structure, makes them very unfit for preservation. This gives all the greater importance to Traquair's discovery, in 1890, of many little creatures, called by him *Palæospondylus gunni*, in the Old Red Sandstone of