spines, always large in this variety; to this he restricts the name Cidaris; one beautiful species, Cidaris papillata (P. pl. 1, fig. 11) is found in the chalk: in the other division the tubercles are imperforate, the spines, which are smaller, being moved by the contractions of the outer skin only; Lamarck distinguishes this genus as the Echinus properly so called: the Cidares variolatæ (P. pl. 1, fig. 5, 7, 10, and pl. 3, fig. 1) belong to it. Of these genera, all the species 1 and 2 appear to be extinct, and the former, confined to the chalk formation only; those of 3 are distinguished from the recent, only by strongly marked specific differences; those of 4 exhibit a very near approach to recent specimens, but are still to be identified.

Of the Star-fish, Asterias *Lamarck*, four species are described by Mr. Parkinson (Org. rem. vol. 3.) as belonging to the English chalk. 1. (Pl. 1, fig. 1) nearly resembling the Pentagonastes semilunatus of *Linck*. 2. (Pl. 1, fig. 3) approaching Pentagonastes semilunatus of *Linck*. 3. Pentaceros lentiginosus, *Linck*. 4. Stella lumbricalis lacertosa corpore spherico, *Linck*; the species nearly resemble the recent.

Among the Zoophytes, the family Encrinus has several genera in the chalk. 1. Pentacrinus, rare. 2. Straight Encrinus (Park. O. R. vol. ii. pl. 13, fig. 34, 70—73.) 3. Bottle Encrinus, (same plate, fig. 75, 76.) 4. Stags-horn Encrinus (same plate, fig. 31, 38, 39): all these species are extinct; one species only of the genus Pentacrinus is known to exist, which differs materially from the fossil.

The fossil long known under the name of the Tortoise Encrinus, which resembles some species of the Encrinites in having a pelvis composed of pentagonal plates supporting articulated tentacula, but differs from them in wanting the articulated stem or column, and must therefore float freely, is now, on account of the essential distinction, formed into a new genus to which the name Marsupite is given; one species only has been described (same plate fig. 24); it is only known fossil, and is peculiar to the chalk.

Of the family Madrepore (Polyparia lamellifera *Lamarck*) only one species occurs, nearly approaching the madrepora cyathus of Ellis, and Caryophyllia cyathus of Lamarck (Parkinson's organic remains, vol. ii. fig. 15 & 16); a more elongated variety (perhaps only a different stage of growth) is found with this; the principal difference between the recent and fossil specimen is, that the exterior of the former is smooth, that of the latter *striated.*

The families of Alcyonium and Spongia present numerous remains: much obscurity prevails in the distribution even of the recent species of these families. Ellis makes their distinction