

general rounded outline; still, however, preserving its flatness. This stage is attained in the *Scutella*, and the *Clypeaster*. (Fig. 90.) We next find that, in the *Spatangus*, the thickness increases; though at first with an oval outline, and with several changes in the situation of the mouth of the animal. At length, after passing through many intermediate steps, we arrive at the perfectly circular and spheroidal *Echinus*. (Fig. 91.) If we might be permitted to conjecture the objects of all these changes, which occur in this continuous gradation, we might not unreasonably suppose them to be the concentration of the internal organs into one compact mass, and the retrenchment of all the external appendages. It is also curious to observe, how, amidst all these modifications, the double rows of perforations, which constitute the ambulacra, retain their situations, diverging in five equidistant lines from one of the extremities of the axis, and winding round to the other.

Returning to the *Asterias*, we can trace changes equally gradual, though in an opposite sense, in another series, which presents a striking contrast with the former. Here, instead of the retrenchment of the appendages, we find them greatly developed, and amplified in every possible degree. The rays of the *Asterias* become narrower, while their length is at the same time increased; the vital organs, and also the tubular feet, are gradually withdrawn from them, and retire within a central disk, to which the slender rays, now bereft of feet, become mere appendages. Such is the condition of the *Ophiura*. (Fig. 92.) By the prolongation and tapering of these rays to slender filaments, they acquire a greater prehensile power, and twine with ease round their prey. We next find their number augmented: it is at first doubled, then tripled, and at length indefinitely augmented. They also become branched, subdividing by simple bifurcations, as in the *Euryole palmiferum* (Fig. 93;) next into minuter ramifications, as in the *Caput Medusæ*, where the thousands of filaments have the appearance of a tangled web, which defies all attempts at unravelling.

The steps are but short from the *Caput Medusæ* to the *Cri-*