

dimensions among themselves and from Ridley's type. The anatriænes are all longer than in Ridley's specimens, and were it not that they form a graduated series I should be disposed to eliminate the specimen from Station 208, and make a distinct variety of it. The cladomes of the anatriænes also differ somewhat in form as well as size, in some the length of the sagitta being less and in others more than half the length of the chord.

	Oxeæ.	Dichotriæne.	Anatriæne.	Cladome of the Anatriæne.		
				Length of Cladi.	Sagitta.	Chord.
Station 186 (i.), . . .	2.86 by 0.016	2.825 by 0.035	2.65 by 0.02	0.055	0.04	0.08
" " (ii.), . . .	2.55 by 0.02	3.034 by 0.03	2.32 by 0.02	0.071	0.055	0.096
" " (iii.), . . .	3.42 by 0.0316	3.42 by 0.047	2.67 by 0.0175	0.079	0.072	0.127
" 208, . . .	2.79 by 0.024	3.02 by 0.044	3.02 by 0.024	0.071	0.048	0.114
Ridley, Report of the "Alert" Sponges, }	3.0 by 0.025	3.0 by 0.035	2.1 by $\left\{ \begin{array}{l} 0.022 \\ \text{to} \\ 0.024 \end{array} \right.$			

The entire sponge varies from 7 to 11 mm. in horizontal diameter by 9 to 13 mm. in height. The ectosome (Pl. XII. fig. 41) varies from about 0.3 to 0.5 mm. in thickness, and consists of collenchyme in which very small fusiform cells are present, as well as collencytes, becoming particularly numerous beneath the outer epithelium (Pl. XII. fig. 41). They are chiefly tangentially arranged, but some few radially. The tissue of the ectosome is reduced to a minimum owing to its extensive excavation by the subdermal cavities (Pl. XII. fig. 39). These are traversed not only by the usual vertical spicular pillars and velar diaphragms, but also by horizontal partitions, which divide an outer smaller chamber in immediate communication with the pores from a larger inner chamber which is continued into an incurrent canal. The incurrent canals descend more or less radiately, taking a very irregular course, into the interior of the sponge. The oscule may be so small as to be invisible to the unaided eye, or it may attain a diameter of 2 mm.; its size probably depending to some extent on the state of contraction of its margin. The margin is formed by a thin muscular membrane, about 0.08 mm. thick, which roofs over the cloaca. The cloaca (Pl. XII. fig. 39) about 1 mm. deep by 0.725 mm. wide, has the form of a short cylindrical tube with a rounded base, its walls, about 0.3 mm. thick, or of the same thickness as the ectosome, consist of collenchyme; they are traversed by numerous excurrent canals, which open freely on the free face of the cloacal wall, but are guarded by a strongly sphinctrate diaphragm at the level of the deeper face, where they enter the choanosome proper. The margin of the oscule is not fringed with spicules, but the walls of the cloaca are traversed by slender oxeas (4) which render its free surface finely hispid (Pl. XII. fig. 39). The excurrent canals as they leave the cloaca and enter the sponge are provided at first with collenchymatous walls, and are crossed by velar