Catopygus recens, A. Ag. (figs. 17-21), p. 123.

Fig. 17. Petaloid ambulacra of Catopygus recens $\left(\frac{2\cdot 5}{1}\right)$.

- " 18. Catopygus recens, seen from the abactinal side; natural size.
- " 19. Same, seen from the actinal side.
- " 20. Same, seen from the anal extremity.
- " 21. Same, seen in profile.

PLATE XX^a.

Hemiaster cavernosus, A. Ag. (figs. 1-22), p. 177.

- Fig. 1. Female, seen from the abactinal side, showing the mode of carrying the young in the deeply-sunken petaloid ambulacral areas.
 - , 2. Single petal, with the young less advanced than in fig. 1 ($\frac{4}{1}$).
 - " 3. Test, seen from the actinal side (large male).
 - " 4. Large male, seen from the abactinal side, to show the petaloid ambulacra slightly sunken below the general level of the test.

Figs. 1, 3, 4, all somewhat enlarged $\left(\frac{1\cdot 5}{1}\right)$.

- " 5. Interior view of abactinal part of test, showing the narrow, slightly swollen petaloid ambulacra of a male; natural size.
- " 6. Same view of a female, showing the broad, swollen petaloid ambulacra; natural size.
- " 7. Young *Hemiaster*, taken from the pouch of the petaloid ambulacra, still somewhat circular with straight primary spines, seen from the abactinal pole; natural size, 2 mm.
- " 8. Somewhat older *Hemiaster*, with curved primary spines, seen from the abactinal pole; natural size, 3 mm.
- ,, 8 a. Three spines of fig. 8; magnified.
- " 9. Young *Hemiaster*. about in condition of fig. 8, denuded of spines, showing the simple ambulacral pores, the large anal opening within the peripetalous fasciole, and the ring of large primary tubercles, forming its inner edge; magnified.
- " 10. The same, somewhat less magnified, seen from the actinal side.
- " 11. Section through a young *Hemiaster* of about this stage, showing the course of the alimentary canal.
- " 12. Magnified view of portion of the test of fig. 9, showing a part of the ambulacral and interambulacral systems and a piece of the peripetalous fasciole.
- " 13. Young *Hemiaster*, measuring 5.5 mm.; the anal system is just beyond the edge of the broad peripetalous fasciole, seen from the abactinal side.