

15. *Retepora plana*, Hincks.
16. „ *tessellata*, Hincks.
17. „ *robusta*, Hincks, = (?) *Retepora porcellana*, Macgillivray.

To which may be added—

18. „ *bi-avicularia*, Smitt, = *Retepora beaniana*, var.
19. „ *altisulcata*, Ridley.
20. „ *microthyris*, Busk (MS.).
21. „ *umbonata*, Macgillivray (var. of *monilifera*).
22. „ *sinuata*, Macgillivray „ „
23. „ *lunata*, Macgillivray (?) „ „
24. „ *acutirostris*, Macgillivray (?) (var. of *monilifera*).
25. „ *munita*, Hincks (?) „ „
26. „ *formosa*, Macgillivray.
27. „ *carinata*, Macgillivray.
28. „ *serrata*, Macgillivray.
29. „ *aurantiaca*, Macgillivray.
30. „ *laxa*, Hincks (? var. *porcellana*, Macgillivray).
31. „ *avicularis*, Macgillivray.

To this list may be added, from the Challenger Collection, nearly as many more forms, thus raising the known, or approximately known, recent species of *Retepora* to between fifty and sixty. In view of this large number, it becomes almost imperative to subdivide the so-termed genus into sections, each having certain characters in common, and which in a monograph of the genus might perhaps come to be regarded as sub-genera, if such a term has any definite meaning.

With respect to the most convenient mode of arranging the various species, I quite agree with Mr. Hincks in regarding it “as more than doubtful whether the reticulated character of the zoarium is alone sufficient to supply the basis for a generic group.” This is in fact abundantly clear from the circumstance that there are not only among the Cheilostomata fenestrate forms, such as *Adeona*, and one or two other Escharidans, but also among the Cyclostomata, as in *Retihornera*. I have therefore not hesitated to include in the same generic group species in which there is either no reticulation of any kind, or one of a different character from that which obtains in the great majority of species. But at the same time a transition, as it may be termed, can be observed from the freely ramified forms to those offering a true reticulation. For, in a certain number of species, the branches or trabeculæ, though lying mainly in one plane, are either quite free or irregularly interlaced, or united either by occasional direct anastomoses, or sometimes by non-celliferous transverse trabeculæ. In the latter case the general disposition of the trabeculæ or branches may be roughly likened to the tracery of Gothic windows of