PLATE XV.

This plate represents the appearance of various deposits in which siliceous organisms play an important role.

Fig. 1. Sections of Diatom Ooze from Station 157; 1950 fathoms, Southern Indian Ocean (fig. 1*a* magnified 50 diameters, fig 1*b* 300 diameters). Although the deposit is principally made up of the frustules of Diatoms, there are numerous shells of *Globigerina* in the deposit.

1. Radiolarian.
2. Diatoms.
3. Section of *Globigerina dutertrei*.
4. Radiolarian.
5. *Globigerina bulloides*.
6. Radiolarian.
7. Section of *Globigerina bulloides*.
8. Part section of *Globigerina bulloides*.
9. *Globigerina* (?).
10. Radiolarian.
11. Diatom.
12. ,,
13. ,, (*Fragilaria*).
14. ,, (*Coscinodiscus*).
15. ,, (*Thalassiothrix*).
16. ,, (*Navicula*).
17. ,, (*Actinocyclus*).
18. ,, (*Coscinodiscus* fragment).
19. ,,

Fig. 2. Sections of Globigerina Ooze from Station 271; 2425 fathoms, Central Pacific (fig. 2*a* magnified 50 diameters, fig. 2*b* 200 diameters). In this deposit, while tropical species of pelagic Foraminifera predominate, the shells and skeletons of Radiolaria make up a very large part of the deposit.

1. Part section of *Pulvinulina menardii*.
2. Cyrtoidean.
3. Portion of Foraminiferous shell (?).
4. Double-shelled Sphæroidean.
5. *Globigerina bulloides* (young).
6. Double-shelled Sphæroidean.
7. *Lychnocanium sigmopodium*.
8. Section of Discoidean; unnumbered figure to the right, *Stylodictya arachnia*.
9. *Globigerina bulloides* (young).
10. ,, ,,
11. Part section of *Globigerina conglobata*.
12. *Panartus tetrathalamus*.
13. Median section of *Pullenia obliquiloculata*.
14. Coccodiscidean.
15. Section of double-shelled Cubosphæridean (?).
16. Section of Phacodiscidean.
17. Part section of *Globigerina conglobata*.
18. Section of Spongodiscidean.
19. Stylosphæridean.
20. Section of double-shelled Sphæroidean or Prunoidean.
21. Part section of *Pulvinulina menardii*.
22. Spongiose Prunoidean.
23. *Lychnosphæra regina*.
24. Section of fragment of shell of *Pullenia obliquiloculata*.
25. Cyrtoidean.
26. Diatom (*Coscinodiscus* ?).
27. Radiolarian.
28. *Lithomitra eruca* (?).
29. Cyrtoidean.
30. *Carposphæra melitomma*.
31. Portion of Porodiscidean.

Fig. 3. Section of Radiolarian Ooze from Station 225; 4475 fathoms, Western Pacific, where the deposit is principally made up of the remains of Radiolaria and other siliceous organisms.

1. Sponge spicule (*Geodia* ?).
2. Portion of Radiolarian skeleton.
3. Sponge spicules.
4. *Rhopalodictyum* sp. (?).
5. Stichocyrtidean (*Dictyomitra caltanisettæ* ?).
6. (?).
7. Portion of section of Porodiscidean.
8. Portion of shell of a Porodiscidean or Spongodiscidean.
9. Tricyrtidean.
10. *Pipettaria fusaria*.
11. Stichocyrtidean.
12. *Anthocyrtium*, n. sp. (same form as in fig. 4, No. 20).
13. *Lychnocanium sigmopodium*.
14. Sponge spicule.
15. Sponge spicule (?).
16. *Carposphæra waltheri* (small specimen).
17. Prunoidean.
18. Fragment of Stylosphæridean (?).
19. Young stage or defective specimen of *Carpocanium petalospyris*.
20. *Carposphæra waltheri*.
21. Sponge spicules.
22. *Dictyomitra caltanisettæ*.
23. Spyroidean.
24. *Druppula nucula* (?).
25. *Archicapsa quadriforis* (?).
26. Tricyrtidean (same as No. 9).
27. Radiolarian.
28. Sponge spicule.
29. Cyrtoidean.
30. *Sethodiscus phacoides*.
31. Tricyrtidean (same as Nos. 9 and 26).
32. *Spongodiscus florealis*.
33. *Entympanium musicantum*.
34. Cyrtoidean.

Fig. 4. Section of Radiolarian Ooze from Station 268; 2900 fathoms, Central Pacific, where the deposit is principally made up of the shells and skeletons of Radiolaria.

1. Fragment of skeleton of Phæodarian.
2. (?)
3. *Cenosphæra compacta*.
4. *Akanthosphæra clavata* (?).
5. Section of Cyrtoidean.
6. *Stylodictya heliospira*.
7. Portion of *Cenosphæra* sp. (?).
8. *Siphonosphæra socialis*.
9. Spyroidean.
10. *Cenosphæra mellifica*.
11. Cyrtoidean.
12. *Dictyomitra caltanisettæ*.
13. Section of Phacodiscidean or Prunoidean (?).
14. *Siphonosphæra patinaria*.
15. Stylosphæridean (?).
16. Fragment of Radiolarian skeleton.
17. *Dorcadospyris antilope*.
18. Section of Cyrtoidean.
19. *Theosphæra zittelii*.
20. *Anthocyrtium*, n. sp. (same as No. 12 in fig. 3).
21. Section of shell of Cyrtoidean.