

# Plates

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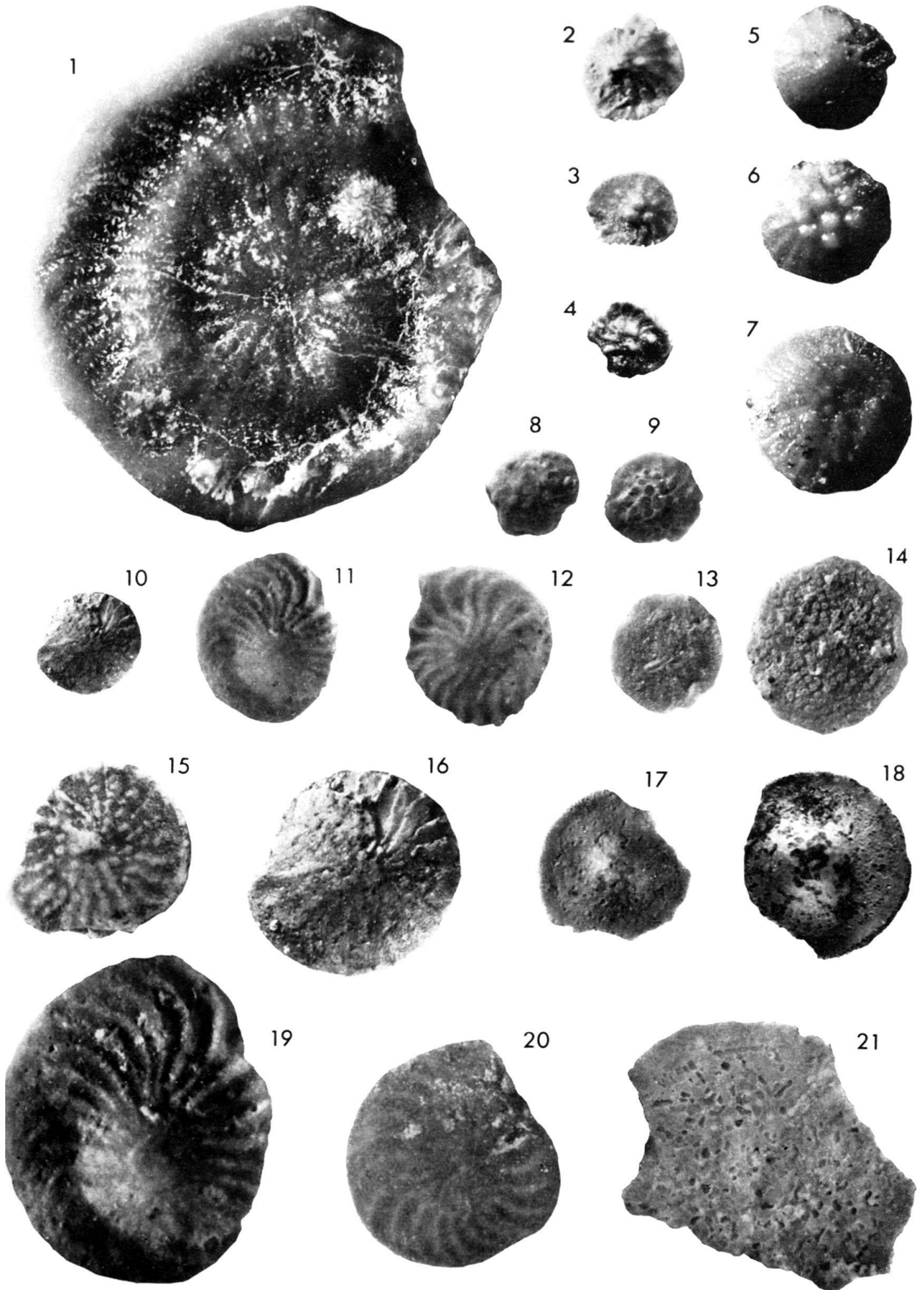
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## Plate 1

Fig. 1	<i>Ranikothalia soldadensis</i> (VAUGHAN & COLE) . . . . . K.2951 B (the white patch in the upper right part of the specimen is an incrustation of bryozoans). C 31158. $\times 9\frac{1}{2}$ .	p. 539
Fig. 2	<i>Ranikothalia tobleri</i> (VAUGHAN & COLE) . . . . . Trinidad, Lizard Springs, Maerky 102 b III (see Pl. 2, Fig. 7). U.S.N.M., Washington. $\times 9\frac{1}{2}$ .	p. 539
Fig. 3	<i>Ranikothalia tobleri</i> (VAUGHAN & COLE) . . . . . Same locality as Fig. 2 (see Pl. 2, Fig. 4). U.S.N.M., Washington. $\times 9\frac{1}{2}$ .	p. 539
Fig. 4	<i>Ranikothalia soldadensis</i> (VAUGHAN & COLE) . . . . . juvenile specimen, same locality as Fig. 2 (see Pl. 2, Fig. 6). U.S.N.M., Washington. $\times 9\frac{1}{2}$ .	p. 539
Fig. 5	<i>Ranikothalia antillea</i> (HANZAWA) . . . . . Same locality as Fig. 2 (see Pl. 2, Fig. 5). U.S.N.M., Washington. $\times 9\frac{1}{2}$ .	p. 539
Fig. 6	<i>Ranikothalia antillea</i> (HANZAWA) . . . . . Same locality as Fig. 2 (see Pl. 2, Fig. 3). U.S.N.M., Washington. $\times 9\frac{1}{2}$ .	p. 539
Fig. 7	<i>Ranikothalia antillea</i> (HANZAWA) . . . . . Same locality as Fig. 2 (see Pl. 2, Fig. 2). U.S.N.M., Washington. $\times 9\frac{1}{2}$ .	p. 539
Fig. 8	<i>Amphistegina undecima</i> n.sp. . . . . Paratype. K. 3878 (see Pl. 5, Fig. 12). C 31210. $\times 9\frac{1}{2}$ .	p. 564
Fig. 9	<i>Amphistegina undecima</i> n.sp. . . . . Paratype. E.L. 1440 (see Pl. 5, Fig. 11). C 31235. $\times 9\frac{1}{2}$ .	p. 564
Fig. 10	<i>Operculinoides trinitatis</i> (NUTTALL) . . . . . K. 2855 (see Fig. 16). C 31131. $\times 9\frac{1}{2}$ .	p. 541
Fig. 11	<i>Operculinoides soldadensis</i> VAUGHAN & COLE . . . . . K. 3692 (see Fig. 19). C 31180. $\times 9\frac{1}{2}$ .	p. 540
Fig. 12	<i>Operculinoides ocalanus</i> (CUSHMAN) . . . . . Trinidad, Vistabella area, San Fernando, St. 45. C 31249. $\times 9\frac{1}{2}$ .	p. 540
Fig. 13	<i>Proporocyclus tobleri</i> (VAUGHAN & COLE) . . . . . Smooth pillarless form. K. 3878 (see Pl. 3, Fig. 5). C 31203. $\times 9\frac{1}{2}$ .	p. 547
Fig. 14	<i>Proporocyclus tobleri</i> (VAUGHAN & COLE) . . . . . Pillared form. K. 3878 (see Pl. 3, Fig. 6). C 31202. $\times 9\frac{1}{2}$ .	p. 547
Fig. 15	<i>Operculinoides trinitatis</i> (NUTTALL) <i>granulatus</i> n.subsp. . . . . Holotype. K. 2855. C 31130. $\times 19$ .	p. 541
Fig. 16	<i>Operculinoides trinitatis</i> (NUTTALL) . . . . . Common smooth form (same specimen as Fig. 10). K. 2855. C 31131. $\times 19$ .	p. 541
Fig. 17	<i>Lepidocyclus pustulosa trinitatis</i> (DOUVILLÉ) . . . . . Intact specimen (see Pl. 5, Fig. 5). K. 1500. C 31087. $\times 9\frac{1}{2}$ .	p. 575
Fig. 18	<i>Lepidocyclus pustulosa trinitatis</i> (DOUVILLÉ) . . . . . Intact specimen (see Pl. 5, Fig. 6). K. 2854. C 31117. $\times 9\frac{1}{2}$ .	p. 575
Fig. 19	<i>Operculinoides soldadensis</i> VAUGHAN & COLE . . . . . Same specimen as Fig. 11. K. 3692. C 31180. $\times 19$ .	p. 540
Fig. 20	<i>Operculinoides spiralis</i> n.sp. . . . . Paratype. Trinidad, Point Bontour, San Fernando area, St. 46. C 31251. $\times 19$ .	p. 542
Fig. 21	<i>Lepidocyclus spatiosa</i> n.sp., A-form . . . . . Paratype. Trinidad, Navette area, R. M. 1337. C 31259. $\times 9\frac{1}{2}$ .	p. 576

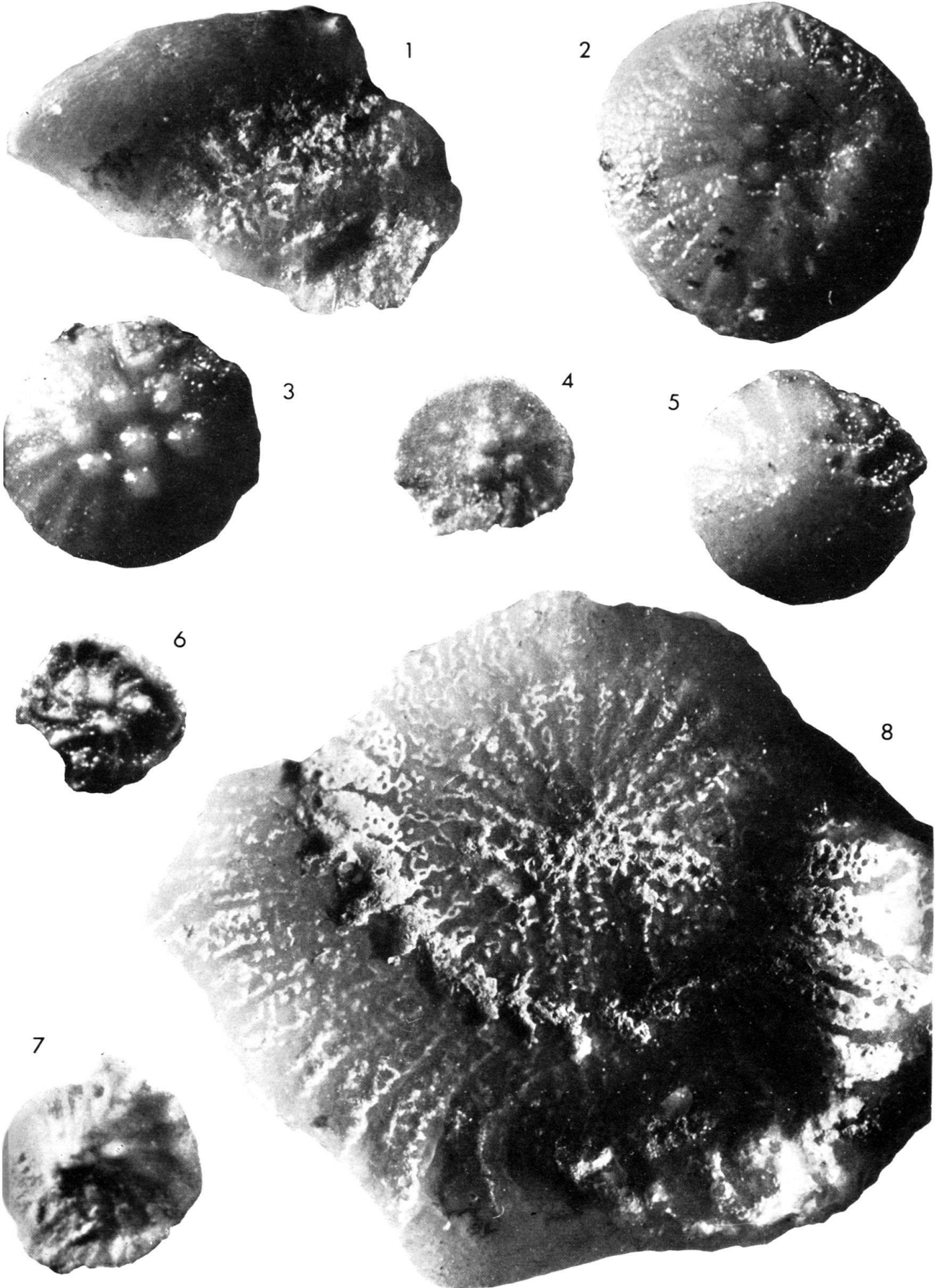


## Plate 2

All figures  $\times 19$

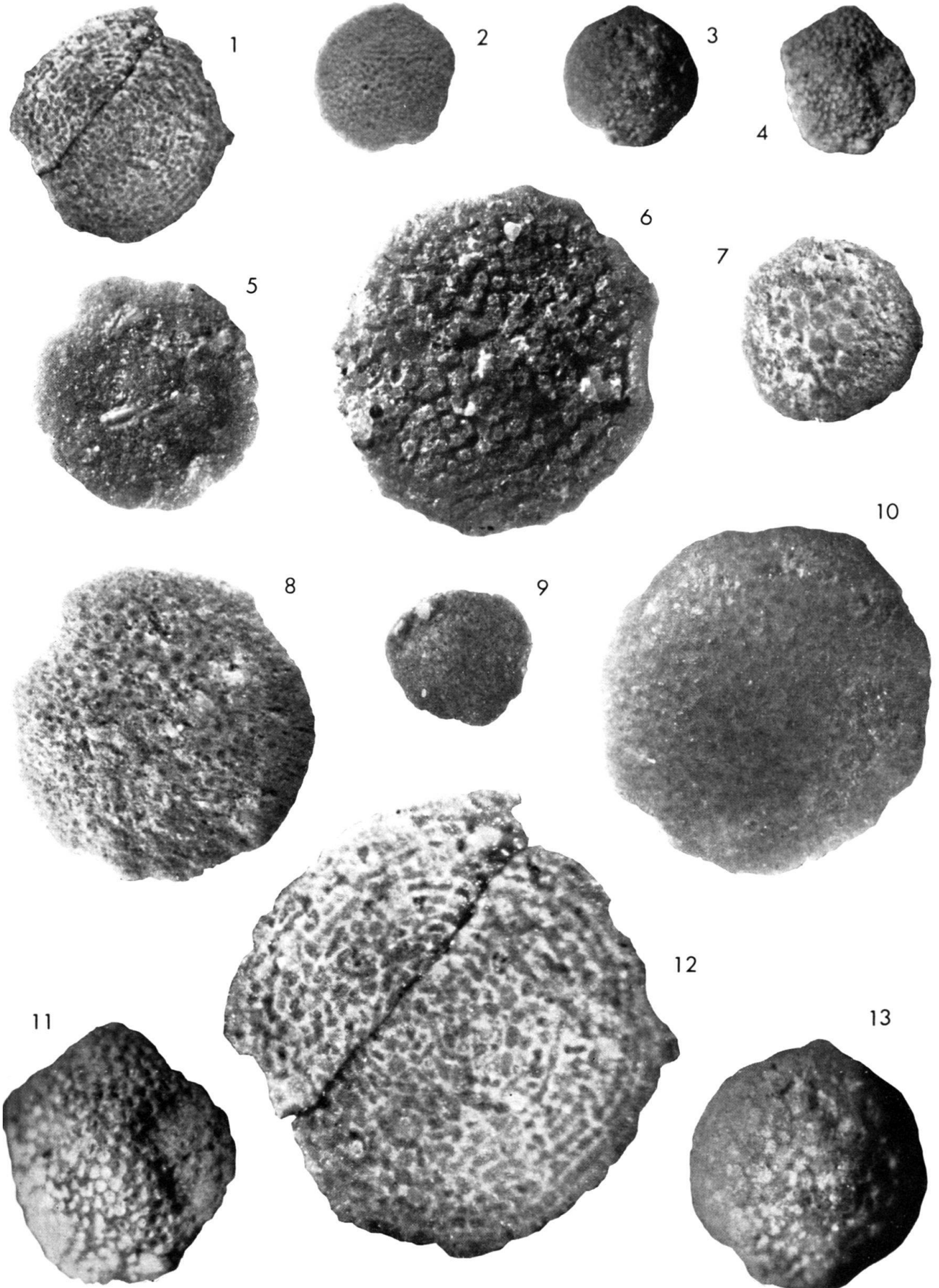
Fig. 1	<i>Ranikothalia soldadensis</i> (VAUGHAN & COLE) . . . . .	p. 539
	Marginal fragment showing the anastomosing ramifications of the marginal plexus. K. 2951 B. C 31159.	
Fig. 2	<i>Ranikothalia antillea</i> (HANZAWA) . . . . .	p. 539
	Same specimen as Pl. 1, Fig. 7. Trinidad, Lizard Springs, Maerky 102 b III. U.S.N.M., Washington.	
Fig. 3	<i>Ranikothalia antillea</i> (HANZAWA) . . . . .	p. 539
	Same specimen as Pl. 1, Fig. 6. Same locality as Fig. 2. U.S.N.M., Washington.	
Fig. 4	<i>Ranikothalia tobleri</i> (VAUGHAN & COLE) . . . . .	p. 539
	Same specimen as Pl. 1, Fig. 3. Same locality as Fig. 2. U.S.N.M., Washington.	
Fig. 5	<i>Ranikothalia antillea</i> (HANZAWA) . . . . .	p. 539
	Same specimen as Pl. 1, Fig. 5. Same locality as Fig. 2. U.S.N.M., Washington.	
Fig. 6	<i>Ranikothalia soldadensis</i> (VAUGHAN & COLE) . . . . .	p. 539
	Juvenile specimen (same specimen as Pl. 1, Fig. 4). Same locality as Fig. 2. U.S.N.M., Washington.	
Fig. 7	<i>Ranikothalia tobleri</i> (VAUGHAN & COLE) . . . . .	p. 539
	Same specimen as Pl. 1, Fig. 2. Same locality as Fig. 2. U.S.N.M., Washington.	
Fig. 8	<i>Ranikothalia soldadensis</i> (VAUGHAN & COLE) . . . . .	p. 539
	K. 2951 B. C 31160.	





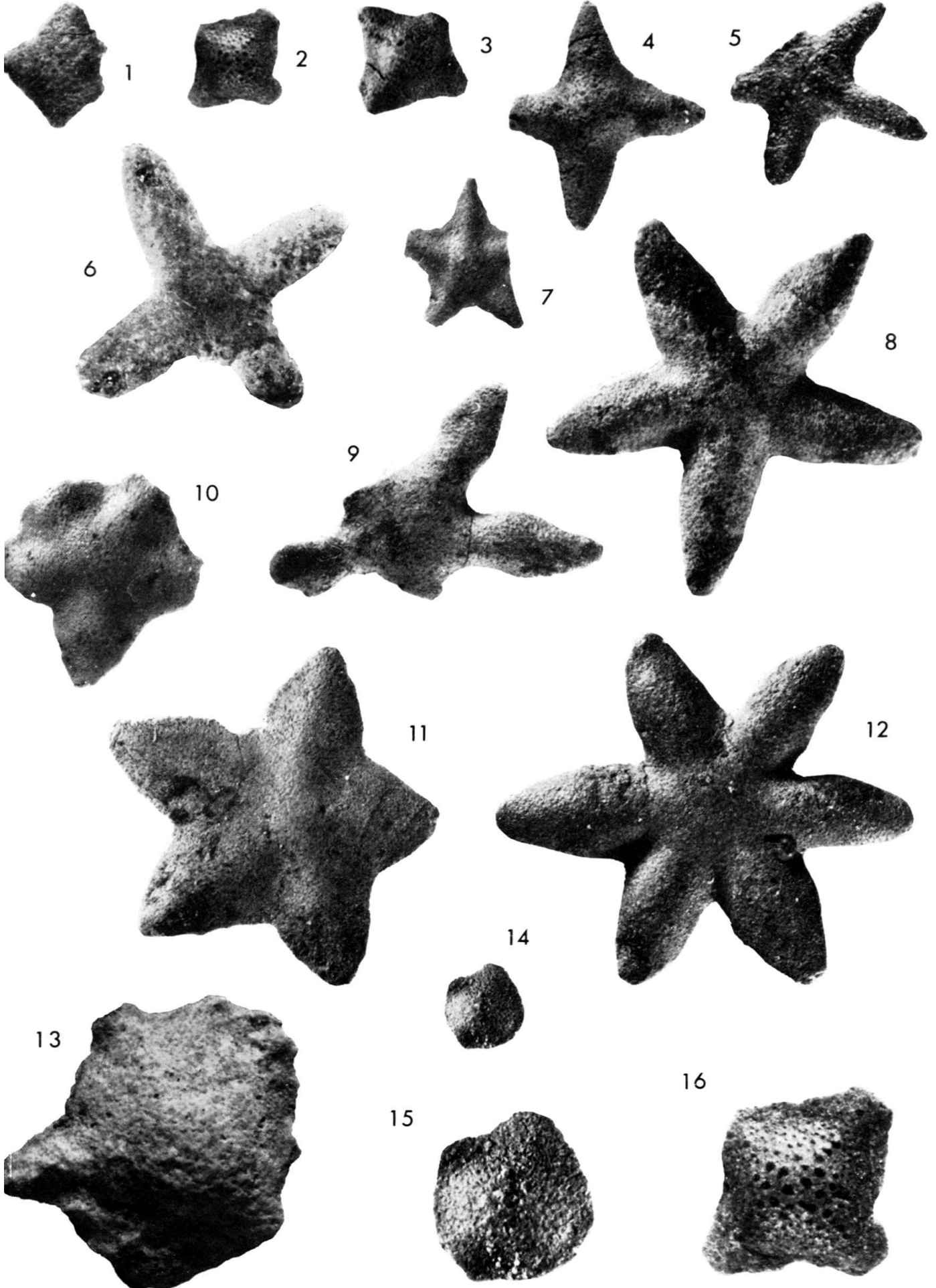
### Plate 3

Fig. 1	<i>Hexagonocyclina meandrica</i> CAUDRI . . . . . Juvenile specimen (see Fig. 12) K. 2950. C 31132. × 19.	p. 543
Fig. 2	<i>Hexagonocyclina inflata</i> (CAUDRI) . . . . . Paratype. Specimen with small pillars. Trinidad, Point Bontour, St. 63. C 31254. × 19.	p. 544
Fig. 3	<i>Hexagonocyclina inflata</i> (CAUDRI) . . . . . Intact pillarless specimen (see Fig. 13). K. 2951 B. C 31165. × 19.	p. 544
Fig. 4	<i>Hexagonocyclina inflata</i> (CAUDRI) . . . . . Weathered pillarless specimen (see Fig. 11). K. 2951 B. C 31166. × 19.	p. 544
Fig. 5	<i>Proporocyclina tobleri</i> (VAUGHAN & COLE). . . . . Smooth pillarless specimen (same specimen as Pl. 1, Fig. 13). K. 3878. C 31203. × 19.	p. 547
Fig. 6	<i>Proporocyclina tobleri</i> (VAUGHAN & COLE) . . . . . With pillars (same specimen as Pl. 1, Fig. 14). K. 3878. C 31202. × 19.	p. 547
Fig. 7	<i>Neodiscocyclina barkeri</i> (VAUGHAN & COLE), B-form . . . . . K. 2951. C 31145. × 19.	p. 550
Fig. 8	<i>Neodiscocyclina grimsdalei</i> (VAUGHAN & COLE) . . . . . A-form with flattened center (no pronounced central depression). K. 2951. C 31143. × 19.	p. 552
Fig. 9	<i>Neodiscocyclina barkeri</i> (VAUGHAN & COLE), A-form . . . . . K. 2951. C 31144. × 19.	p. 550
Fig. 10	<i>Neodiscocyclina fonslacertensis</i> (VAUGHAN & COLE) . . . . . K. 2951 B. C 31153. × 19.	p. 554
Fig. 11	<i>Hexagonocyclina inflata</i> (CAUDRI) . . . . . Same specimen as Fig. 4. K. 2951 B. C 31166. × 38.	p. 544
Fig. 12	<i>Hexagonocyclina meandrica</i> CAUDRI . . . . . Same specimen as Fig. 1. K. 2950. C 31132. × 38.	p. 543
Fig. 13	<i>Hexagonocyclina inflata</i> (CAUDRI) . . . . . Same specimen as Fig. 3. K. 2951 B. C 31165. × 38.	p. 544



**Plate 4**

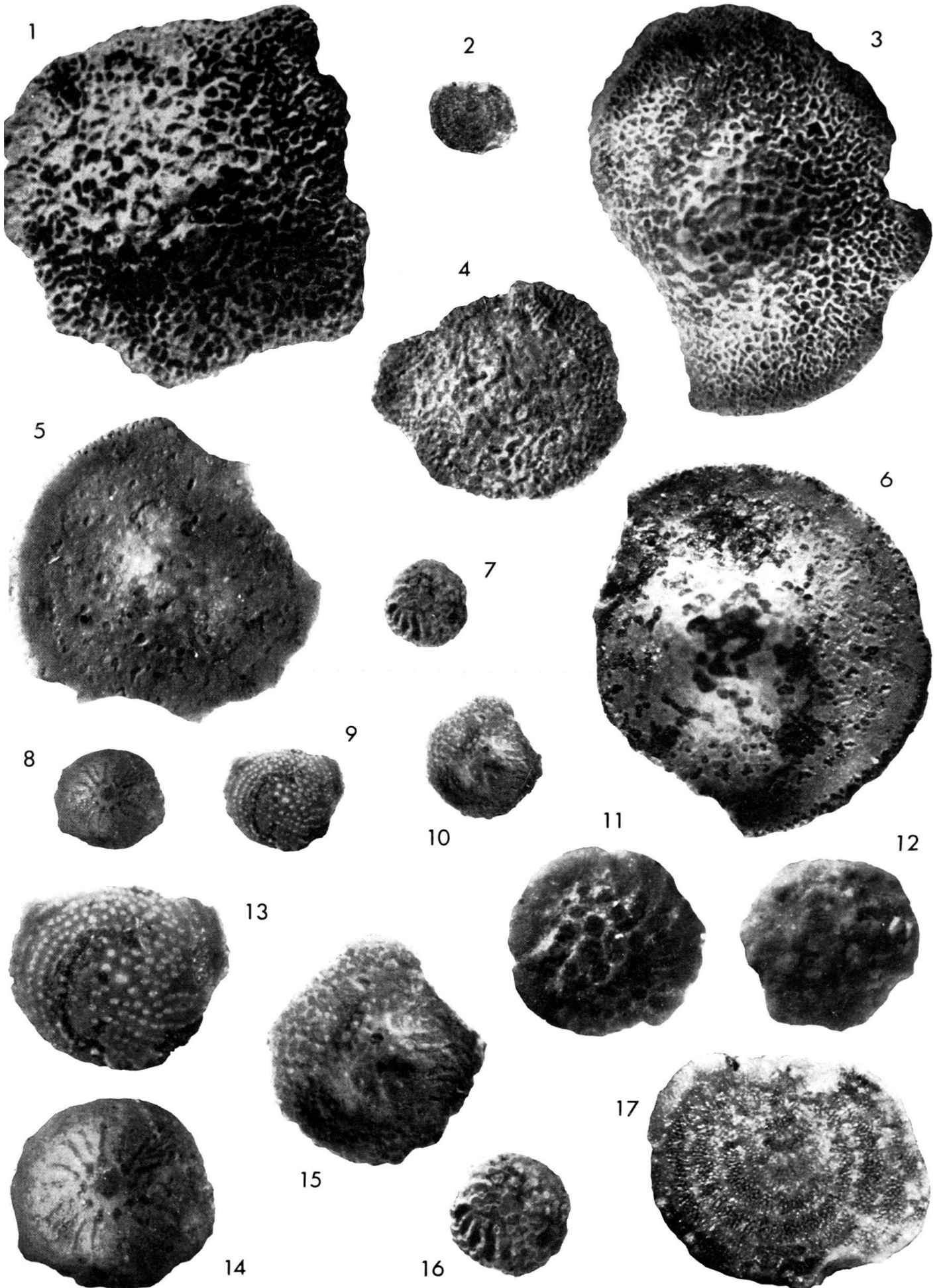
Fig. 1-12, 16	<i>Asterocyclina asterisca</i> (GUPPY), A-form . . . . .	p. 560
	K. 1316: Fig. 1, 2, 4, 8, 10, 11, 12, 16 (same as Fig. 2). K. 2854: Fig. 3, 5, 6, 7, 9.	
	Fig. 1: C 31062; Fig. 2: C 31063; Fig. 3: C 31121; Fig. 4: C 31064; Fig. 5: C 31122; Fig. 6: C 31123; Fig. 7: C 31124; Fig. 8: C 31065; Fig. 9: C 31125; Fig. 10: C 31066; Fig. 11: C 31067; Fig. 12: C 31068; Fig. 16: C 31063.	
	Fig. 1-12, $\times 9\frac{1}{2}$ ; Fig. 16, $\times 19$ .	
Fig. 14-15	<i>Asterocyclina asterisca</i> (GUPPY), B-form . . . . .	p. 562
	K. 2854. C 31129. Fig. 14, $\times 9\frac{1}{2}$ , Fig. 15 (same specimen), $\times 19$ .	
Fig. 13	<i>Asterocyclina soldadensis</i> n.sp. . . . .	p. 563
	Paratype. K. 2651. C 31102. $\times 9\frac{1}{2}$ .	



## Plate 5

- |         |  |        |
|---------|--|--------|
| Fig. 1  | <i>Lepidocyclina pustulosa</i> (DOUVILLÉ) . . . . .<br>Weathered specimen (most common habitus). K. 2854 (after VAUGHAN & COLE 1941, Pl. 28, Fig. 5). U. S. N. M., Washington. × 19.               | p. 575 |
| Fig. 2  | <i>Cycloloculina jarvisi</i> CUSHMAN . . . . .<br>See Fig. 17. K. 3692. C 31049. × 19.   | p. 579 |
| Fig. 3  | <i>Lepidocyclina pustulosa trinitatis</i> (DOUVILLÉ) . . . . .<br>With weathered surface but well preserved flange and edge. K. 2854. C 31116. × 19.   | p. 575 |
| Fig. 4  | <i>Lepidocyclina peruviana</i> CUSHMAN . . . . .<br>Weathered specimen showing the radial arrangement of the inner layer of lateral chambers on the flange. K. 1500. C 31077. × 19.                | p. 573 |
| Fig. 5  | <i>Lepidocyclina pustulosa trinitatis</i> (DOUVILLÉ) . . . . .<br>Intact specimen (same as Pl. 1, Fig. 17) with well preserved roof of the lateral chambers. K. 1500. C 31087. × 19.               | p. 575 |
| Fig. 6  | <i>Lepidocyclina pustulosa trinitatis</i> (DOUVILLÉ) . . . . .<br>Intact specimen (same as Pl. 1, Fig. 18). K. 2854. C 31117. × 19.  | p. 575 |
| Fig. 7  | <i>Helicosteginopsis soldadensis</i> (GRIMSDALE). . . . .<br>Weathered specimen (same as Fig. 16). K. 2651. C 31088. × 24.   | p. 570 |
| Fig. 8  | <i>Amphistegina grimsdalei</i> n. sp. . . . .<br>Paratype. Common lenticular form, variety with one central pillar and radial rods and rows of granulations (see Fig. 14). K. 3677. C 31173. × 19. | p. 566 |
| Fig. 9  | <i>Amphistegina grimsdalei</i> n. sp. . . . .<br>Paratype. Flat flaring form (see Fig. 13; compare Pl. 24, Fig. 2). K. 2651. C 31089. × 19.  | p. 566 |
| Fig. 10 | <i>Helicosteginopsis soldadensis</i> (GRIMSDALE). . . . .<br>Flat broad-flanged specimen (see Fig. 15). K. 2651. C 31090. × 19.  | p. 570 |
| Fig. 11 | <i>Amphistegina undecima</i> n. sp. . . . .<br>Paratype. Same specimen as Pl. 1, Fig. 9. E. L. 1440. C 31235. × 19.  | p. 564 |
| Fig. 12 | <i>Amphistegina undecima</i> n. sp. . . . .<br>Paratype. Same specimen as Pl. 1, Fig. 8. K. 3878. C 31210. × 19.   | p. 564 |
| Fig. 13 | <i>Amphistegina grimsdalei</i> n. sp. . . . .<br>Paratype. Same as Fig. 9. K. 2651. C 31089. × 34.   | p. 566 |
| Fig. 14 | <i>Amphistegina grimsdalei</i> n. sp. . . . .<br>Paratype. Same as Fig. 8. K. 3677. C 31173. × 34.   | p. 566 |
| Fig. 15 | <i>Helicosteginopsis soldadensis</i> (GRIMSDALE). . . . .<br>Same as Fig. 10, showing radial rows of bare chamberlets on the flange; no lateral tissue developed. K. 2651. C 31090. × 34.          | p. 570 |
| Fig. 16 | <i>Helicosteginopsis soldadensis</i> (GRIMSDALE). . . . .<br>Same as Fig. 7, showing the undivided alar prolongations, not covered by lateral tissue. K. 2651. C 31088. × 34.                      | p. 570 |
| Fig. 17 | <i>Cycloloculina jarvisi</i> CUSHMAN. . . . .<br>Same as Fig. 2. Dorsal view, showing the porous structure of the outer wall (compare Pl. 29, Fig. 8 and 9). K. 3692. C 31049. × 68.               | p. 579 |



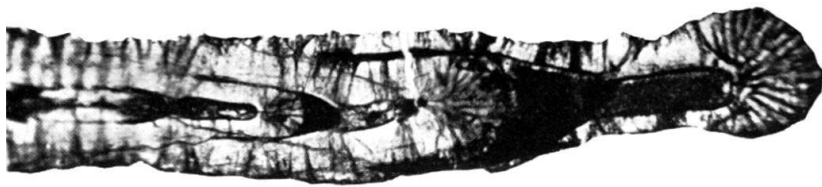


## Plate 6

All figures × 19

- Fig. 1 *Ranikothalia soldadensis* (VAUGHAN & COLE) . . . . . p. 539  
Vertical section, detail of Pl. 8, Fig. 3. K. 2951 B. C 31168.
- Fig. 2 *Ranikothalia tobleri* (VAUGHAN & COLE) . . . . . p. 539  
Reworked specimen. Trinidad, Dunmore Hill, R.C.M. 2907 B. Collection Shell, The Hague, Holland, n° 158.
- Fig. 3 *Ranikothalia soldadensis* (VAUGHAN & COLE) . . . . . p. 539  
Shows the double septa, the pores in the lateral roof along the septal filaments and the network of the marginal plexus in horizontal and tangential section (see also Pl. 7, Fig. 5). K. 2951 B. C 31170.
- Fig. 4 *Ranikothalia antillea* (HANZAWA) . . . . . p. 539  
Unspecified locality on Soldado Rock. Collection Grimsdale; possibly filed with Shell's collection in The Hague.
- Fig. 5 *Ranikothalia antillea* (HANZAWA) . . . . . p. 539  
Probably from the same locality as Fig. 4, Soldado Rock. Collection Grimsdale.
- Fig. 6 *Ranikothalia antillea* (HANZAWA) . . . . . p. 539  
K. 2951 B. C 31140.

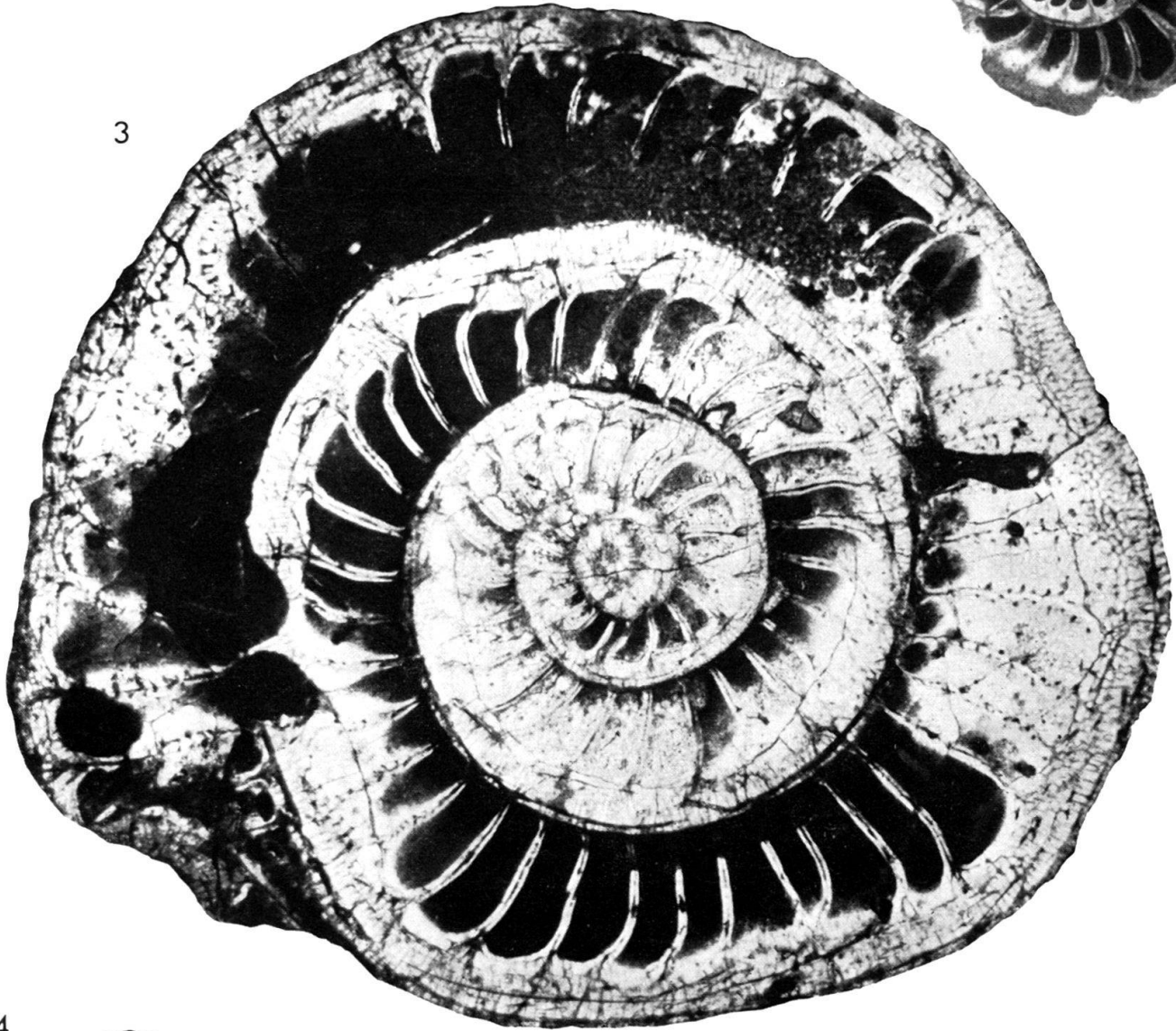




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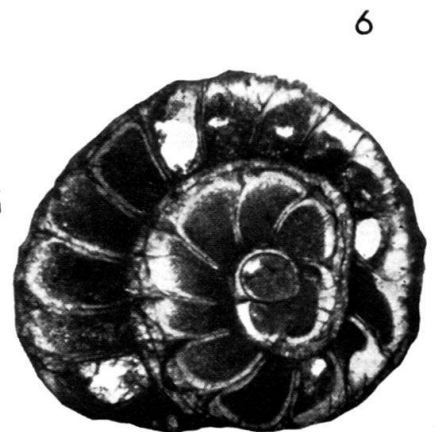
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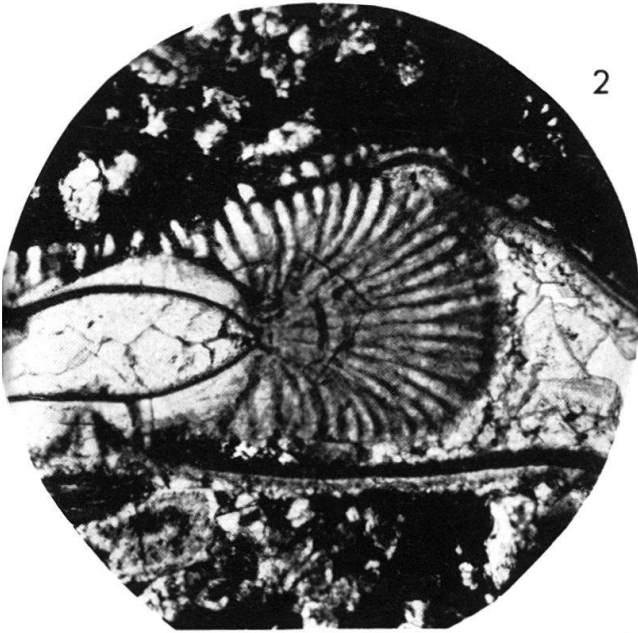
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**Plate 7**

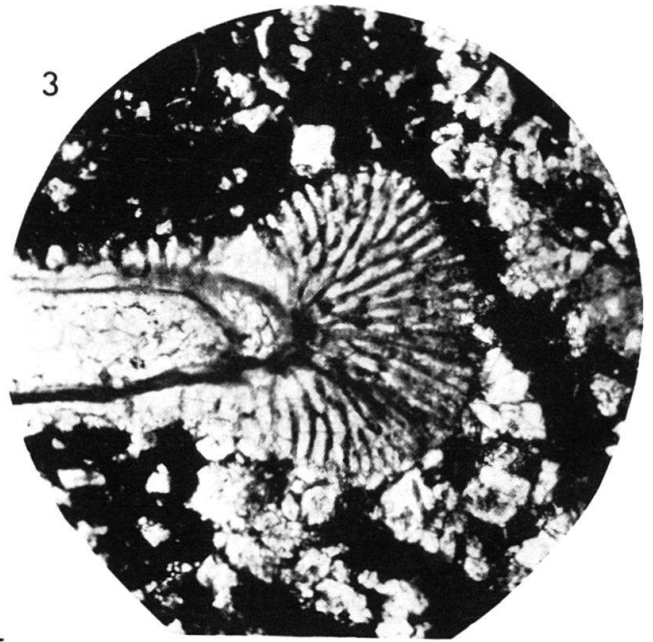
- Fig.1      *Ranikothalia soldadensis* (VAUGHAN & COLE) . . . . . p. 539  
Vertical section of largest specimen observed. Rz. 248. C 31227.  $\times 9\frac{1}{2}$ .
- Fig.2      Same specimen as Fig.1, marginal plexus of penultimate whorl, exact  
vertical section. C 31227.  $\times 34$ .
- Fig.3      Same specimen as Fig.1, marginal plexus of ultimate whorl, cut at a  
slight angle from the vertical, showing the anastomosis of the canals.  
C 31227.  $\times 34$ .
- Fig.4      Same specimen as Fig.1, section through last two whorls. C 31227.  $\times 19$ .
- Fig.5      *Ranikothalia soldadensis* (VAUGHAN & COLE) . . . . . p. 539  
Differently focussed photograph of the same specimen as Pl.6, Fig.3,  
concentrating on the intraseptal canals (note: the irregular articulated  
clear spiral tube in the middle whorl is probably a parasitic organism).  
K.2951 B. C 31170.  $\times 19$ .



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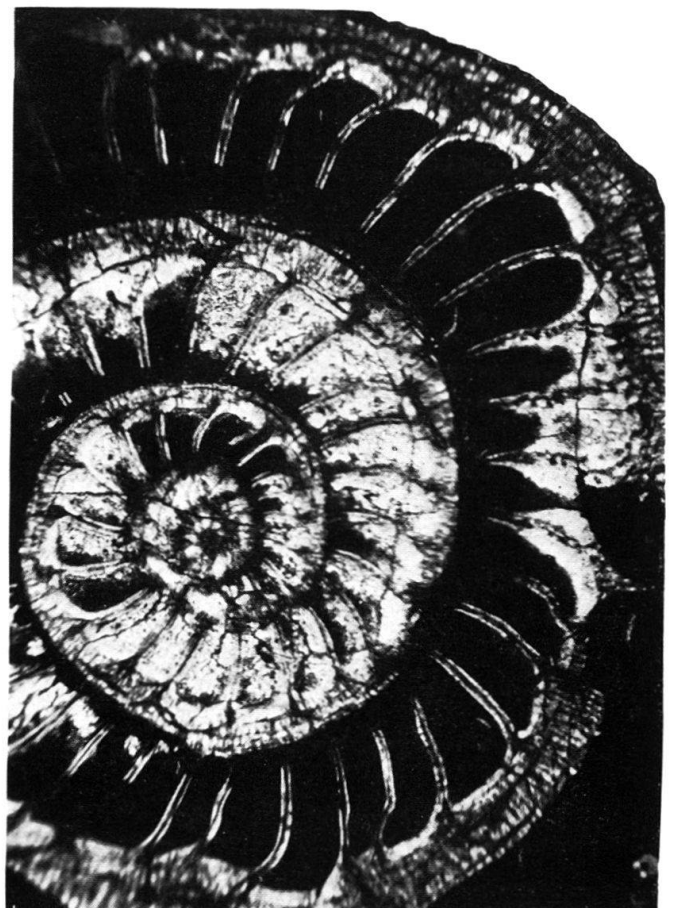
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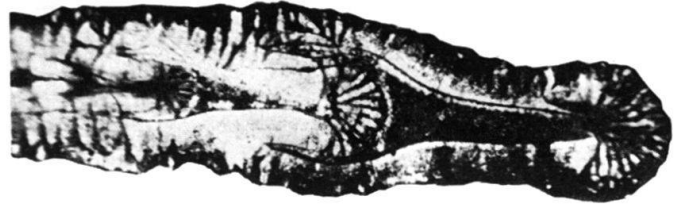
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## Plate 8

Fig. 1	<i>Ranikothalia soldadensis</i> (VAUGHAN & COLE) . . . . . K.2951 B. C 31169. $\times 9\frac{1}{2}$ .	p. 539
Fig. 2	Detail of Fig. 1. $\times 19$ .	
Fig. 3	<i>Ranikothalia soldadensis</i> (VAUGHAN & COLE) . . . . . See also Pl. 6, Fig. 1. K.2951 B. C 31168. $\times 9\frac{1}{2}$ .	p. 539
Fig. 4	<i>Operculinoides ocalanus</i> (CUSHMAN) . . . . . Trinidad, Vistabella area, St.45. C 31250. $\times 19$ .	p. 540
Fig. 5	<i>Operculinoides soldadensis</i> VAUGHAN & COLE . . . . . Topotype. K.3692. C 31177. $\times 19$ .	p. 540
Fig. 6	Id. K.3692, C 31178. $\times 19$ .	
Fig. 7	Id. K.3692, C 31179. $\times 19$ .	
Fig. 8	<i>Operculinoides soldadensis</i> VAUGHAN & COLE . . . . . J.S.1950. C 31244. $\times 19$ .	p.540
Fig. 9	<i>Operculinoides ocalanus</i> (CUSHMAN) . . . . . J.S.1950. C 31246. $\times 19$ .	p. 540
Fig. 10	<i>Operculinoides cf. soldadensis</i> VAUGHAN & COLE . . . . . Only specimen found in Bed 11! K.10721. C 31211. $\times 19$ .	p. 540
Fig. 11	<i>Operculinoides trinitatensis granulatus</i> n.subsp.. . . . . K.2855. C 31126. $\times 19$ .	p. 541
Fig. 12	Id. K.2855. C 31127. $\times 19$ .	
Fig. 13	<i>Operculinoides spiralis</i> n.sp. . . . . Holotype. Slightly granulated specimen. K.2651. C 31092. $\times 19$ .	p. 542
Fig. 14	<i>Operculinoides trinitatensis</i> (NUTTALL) . . . . . Typical smooth specimen. Trinidad, Point Bontour, San Fernando area, St.63. C 31253. $\times 19$ .	p. 541
Fig. 15	Id. K.2855. C 31128. $\times 19$ .	



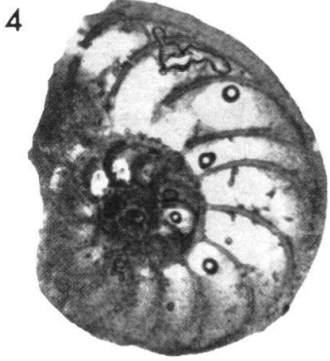
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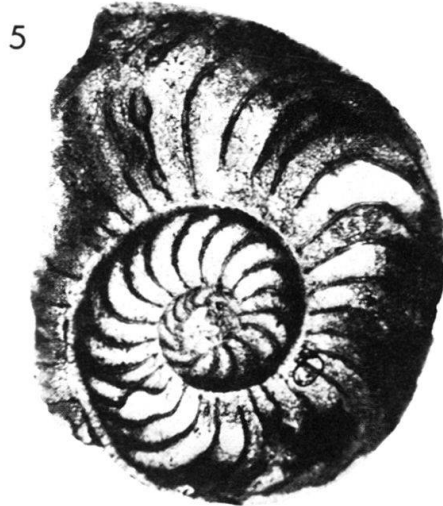
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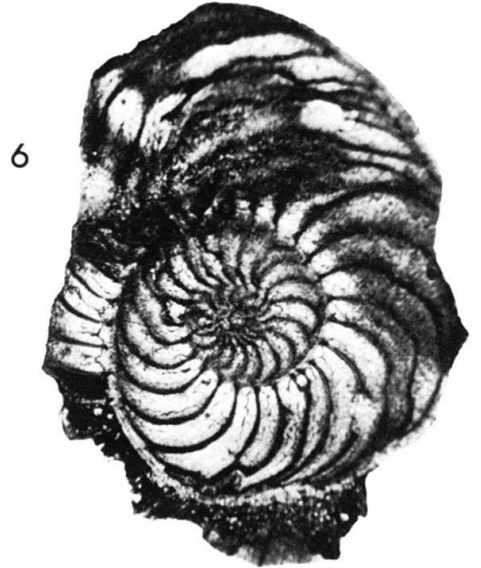
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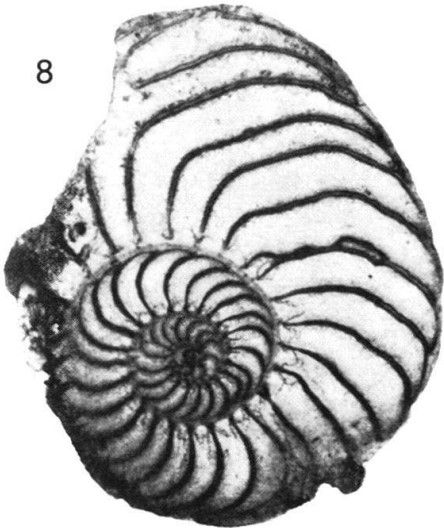
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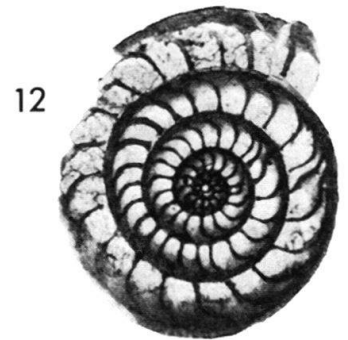
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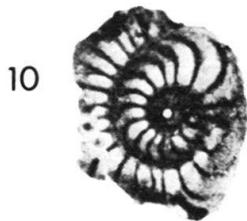
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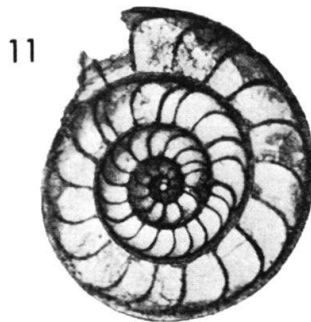
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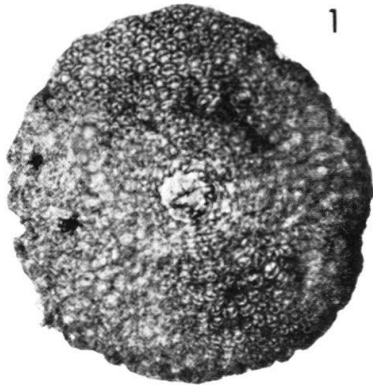
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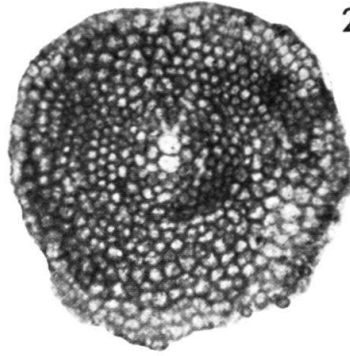
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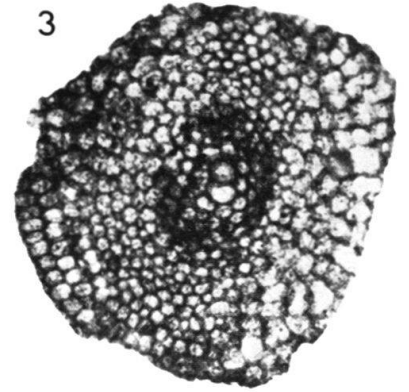
Fig. 1	<i>Actinocyclus barbadensis</i> (VAUGHAN) . . . . .	p. 542
	Reworked specimen. Trinidad, Point Bontour, San Fernando area, St.67. C 31255.	
Fig. 2	<i>Hexagonocyclus inflata</i> (CAUDRI) . . . . .	p. 544
	Holotype (see Pl.10, Fig.2). Trinidad, Point Bontour, San Fernando area, Cd.18 (after CAUDRI 1948, Pl.74, Fig.5).	
Fig. 3	<i>Hexagonocyclus inflata</i> (CAUDRI) . . . . .	p. 544
	Paratype. Trinidad, Point Bontour, San Fernando area, St.67. C 31256.	
Fig. 4	<i>Hexagonocyclus inflata</i> (CAUDRI) . . . . .	p. 544
	Pillarless specimen. K.2951 B. C 31161.	
Fig. 5	Id. K.2951 B. C 31162. . . . .	p. 544
Fig. 6	<i>Hexagonocyclus inflata</i> (CAUDRI) . . . . .	p. 544
	Paratype. Typical thick-lenticular specimen. Trinidad, Point Bontour, San Fernando area, Cd.18 (after CAUDRI 1948, Pl.73, Fig.6).	
Fig. 7	<i>Hexagonocyclus inflata</i> (CAUDRI) . . . . .	p. 544
	Pillarless eroded specimen. K.2951 B. C 31163.	
Fig. 8	<i>Hexagonocyclus meandrica</i> CAUDRI . . . . .	p. 543
	Juvenile specimen (see Pl.10, Fig.1). K.2950. C 31134.	
Fig. 9	<i>Hexagonocyclus meandrica</i> CAUDRI . . . . .	p. 543
	K.2951. C 31148.	
Fig. 10	<i>Hexagonocyclus meandrica</i> CAUDRI . . . . .	p. 543
	Small eroded specimen. K.2951 B. C 31164.	
Fig. 11	<i>Hexagonocyclus meandrica</i> CAUDRI . . . . .	p. 543
	K.2950. C 31135.	
Fig. 12	<i>Hexagonocyclus meandrica</i> CAUDRI . . . . .	p. 543
	See Pl.10, Fig.5. K.2950. C 31133.	



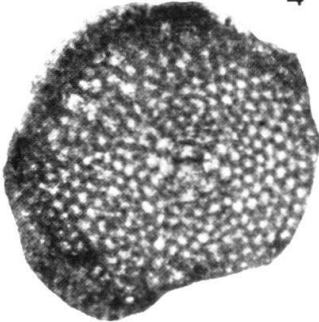
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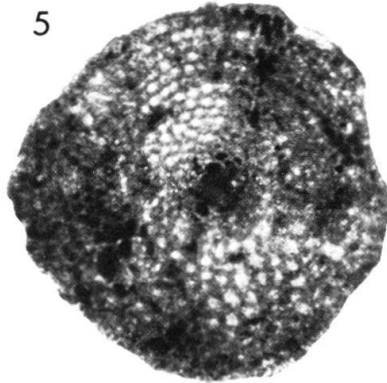
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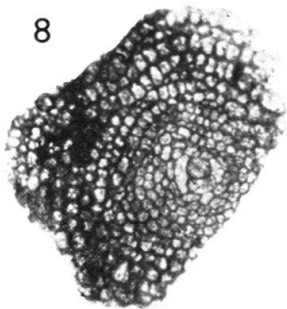
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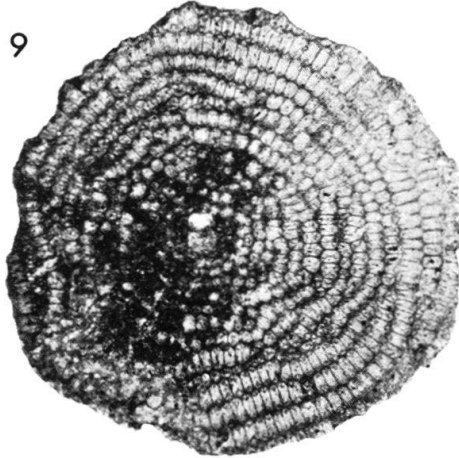
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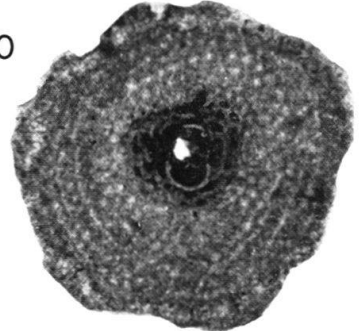
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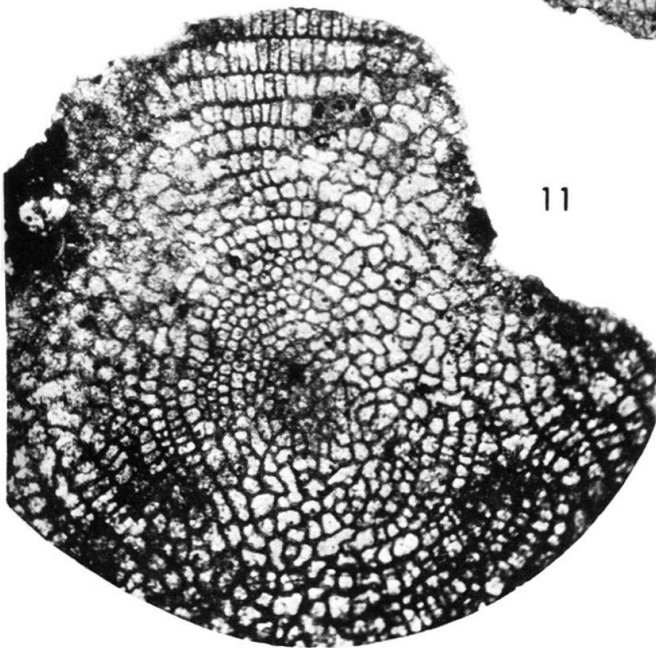
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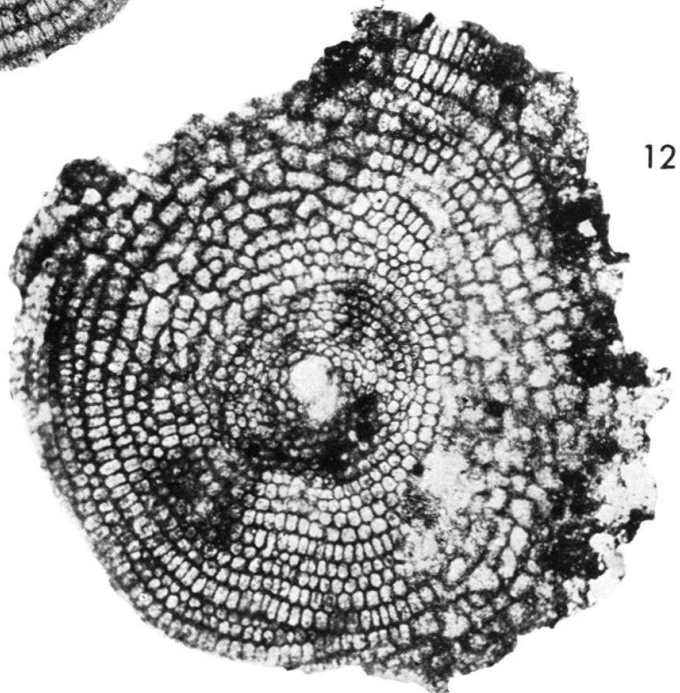
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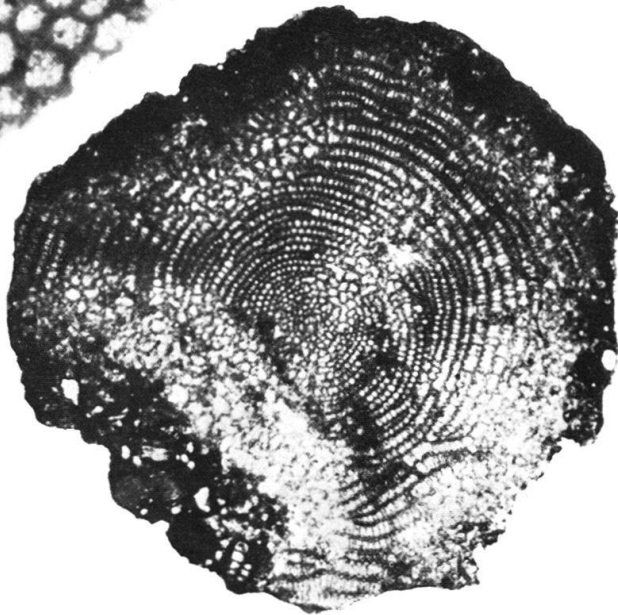
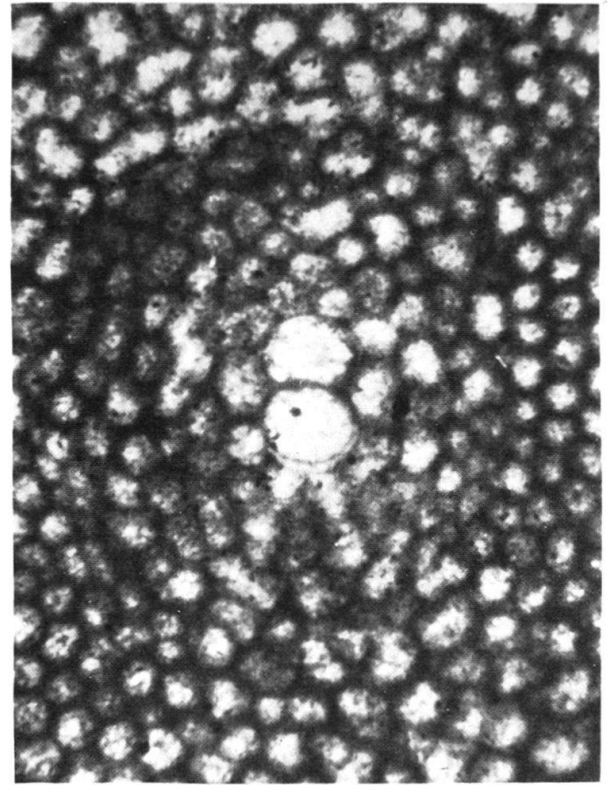
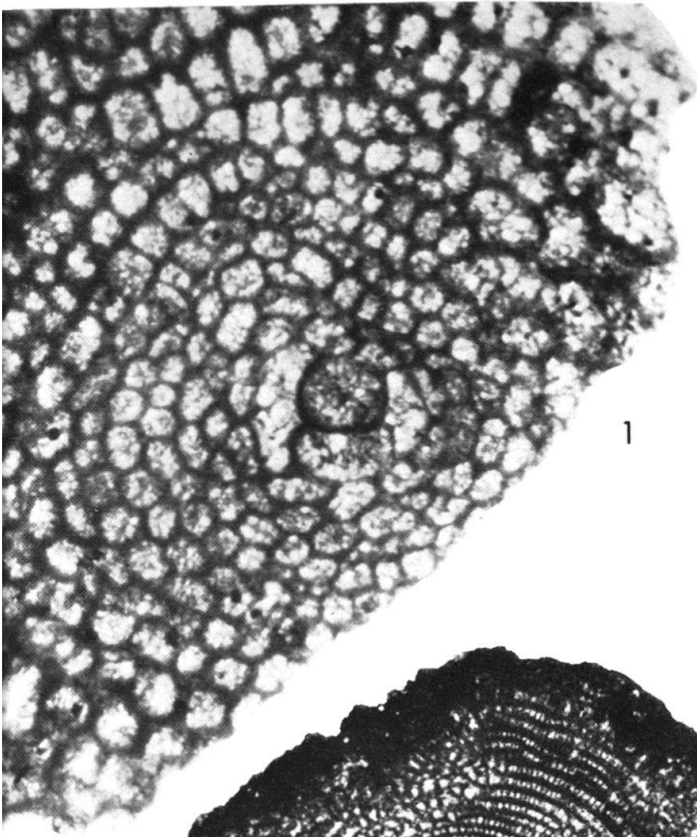


12

**Plate 10**

- Fig. 1      *Hexagonocyclina meandrica* CAUDRI . . . . . p. 543  
See Pl.9, Fig.8. K.2950. C 31134. × 138.
- Fig. 2      *Hexagonocyclina inflata* (CAUDRI) . . . . . p. 544  
Holotype (see Pl.9, Fig.2). Trinidad, Point Bontour, San Fernando area,  
Cd.18. × 138.
- Fig. 3      *Hexagonocyclina meandrica* CAUDRI . . . . . p. 543  
Large A-form, entire specimen (see Fig.4). K.2951. C 31147. × 19.
- Fig. 4      Detail of Fig.3. C 31147. × 38.
- Fig. 5      *Hexagonocyclina meandrica* CAUDRI . . . . . p. 543  
Detail of Pl.9, Fig.12. K.2950. C 31133. × 57.



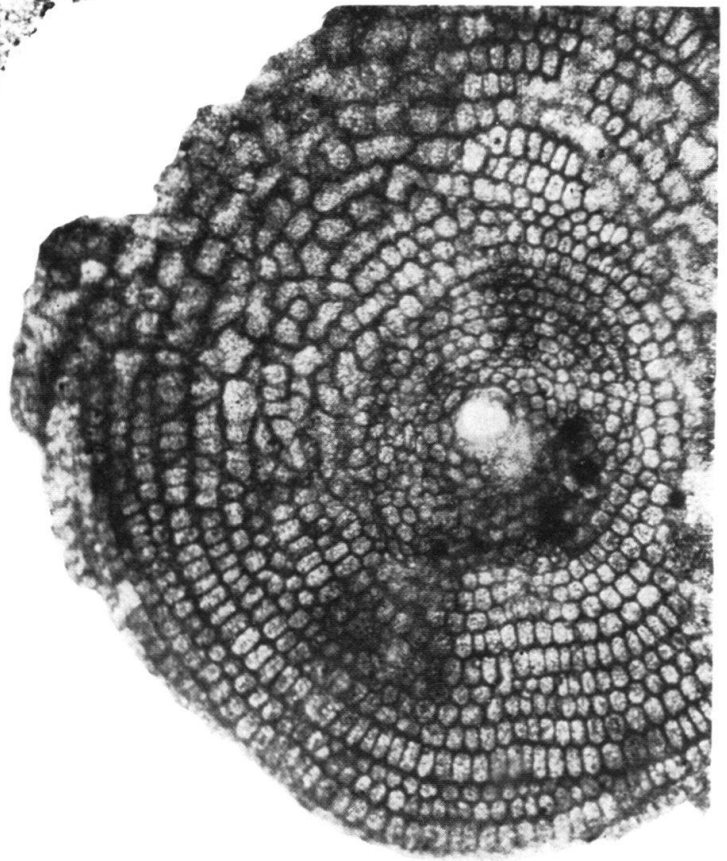
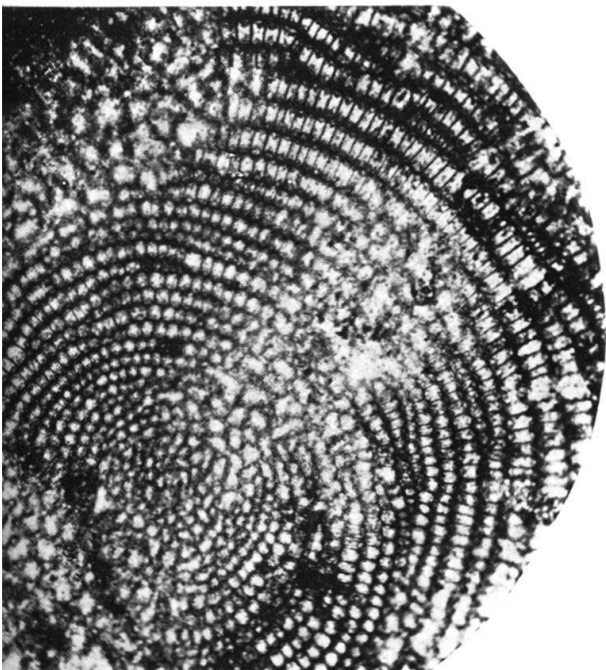


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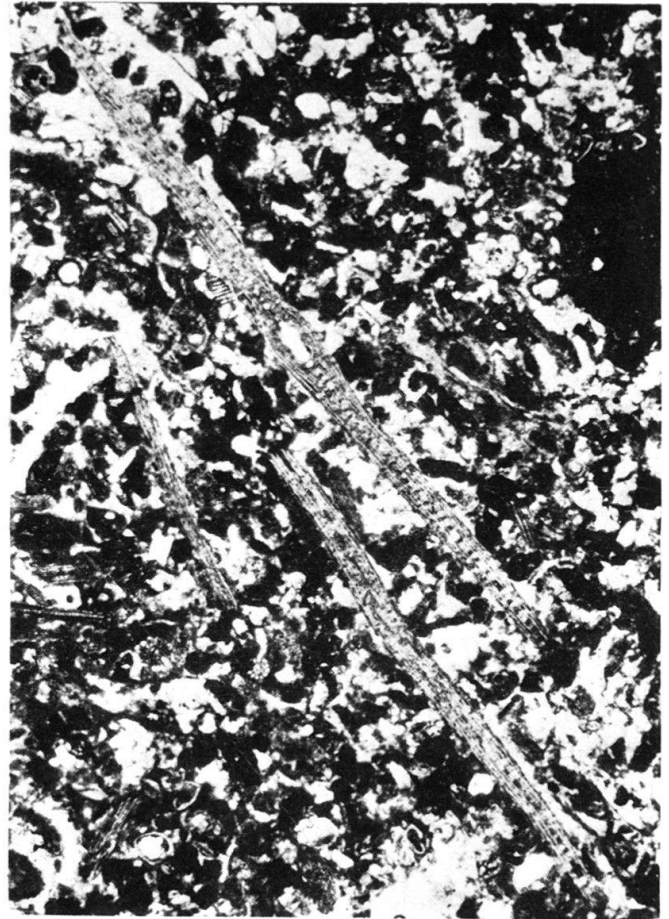


**Plate 11**

Fig. 1	<i>Athecocyclina soldadensis</i> (VAUGHAN & COLE) . . . . .	p. 546
	B-form, detail of Pl. 12, Fig. 1. K. 2951 B. C 31150. × 38.	
Fig. 2	<i>Athecocyclina</i> limestone . . . . .	p. 546
	See Part 1, p. 380. K. 2851. C 31108. × 19.	
Fig. 3	<i>Athecocyclina soldadensis</i> (VAUGHAN & COLE) . . . . .	p. 546
	Detail of Fig. 2. K. 2851. C 31108. × 38.	
Fig. 4	<i>Athecocyclina soldadensis</i> (VAUGHAN & COLE) . . . . .	p. 546
	A-form with monstrous embryonic apparatus. K. 2951 B. C 31151. × 38.	
Fig. 5	<i>Athecocyclina soldadensis</i> (VAUGHAN & COLE) . . . . .	p. 546
	Different photograph of same specimen as Fig. 2 and 3, giving details of the peripheral part. K. 2851. C 31108. × 38.	



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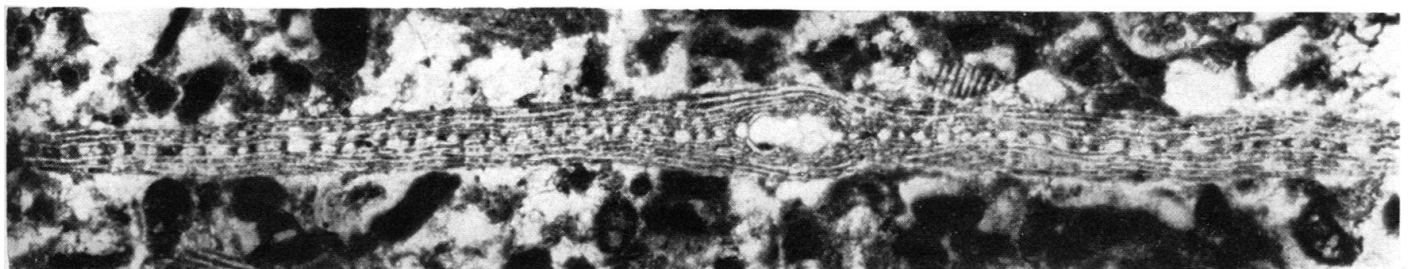


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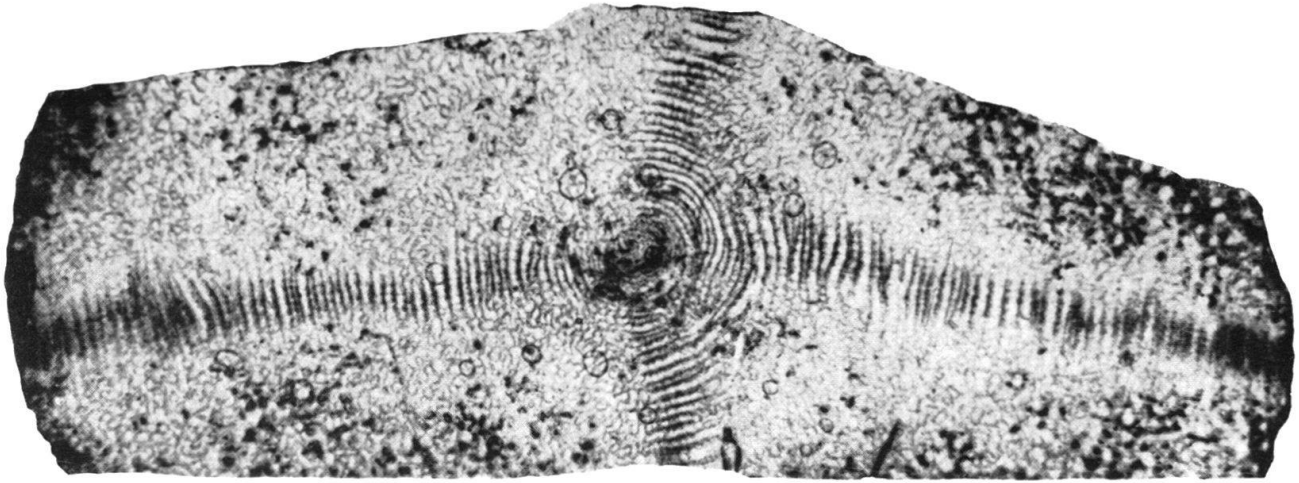
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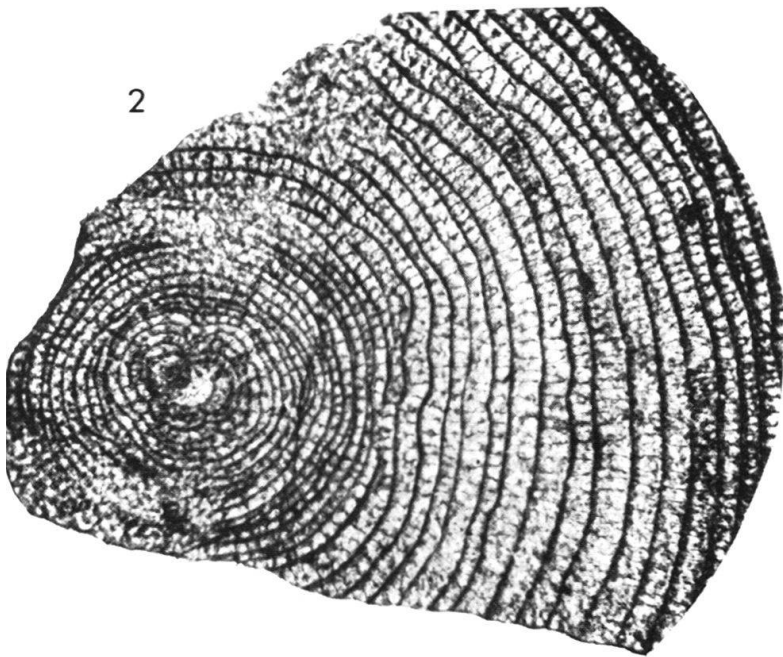
## Plate 12

- Fig. 1      *Athecocyclina soldadensis* (VAUGHAN & COLE) . . . . . p. 546  
B-form (for details see Pl. 11, Fig. 1). K. 2951 B. C 31150. × 19.
- Fig. 2      *Proporocyclina tobleri* (VAUGHAN & COLE) . . . . . p. 547  
A-form, with pillars; irregularly developed specimen with exceptionnally  
elongated chambers towards the periphery. K. 3878. C 31205. × 38.
- Fig. 3      *Proporocyclina tobleri* (VAUGHAN & COLE) . . . . . p. 547  
Regenerated A-form. K. 3878. C 31206. × 19.
- Fig. 4      *Proporocyclina tobleri* (VAUGHAN & COLE) . . . . . p. 547  
Pillarless A-form. K. 3878. C 31207. × 38.
- Fig. 5      *Proporocyclina tobleri* (VAUGHAN & COLE) . . . . . p. 547  
Pillarless A-form. K. 3878. C 31208. × 38.

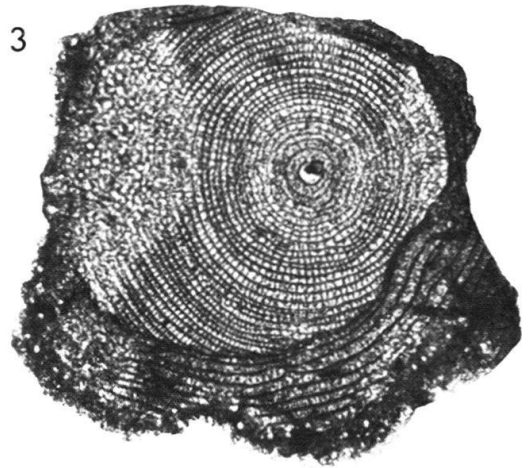




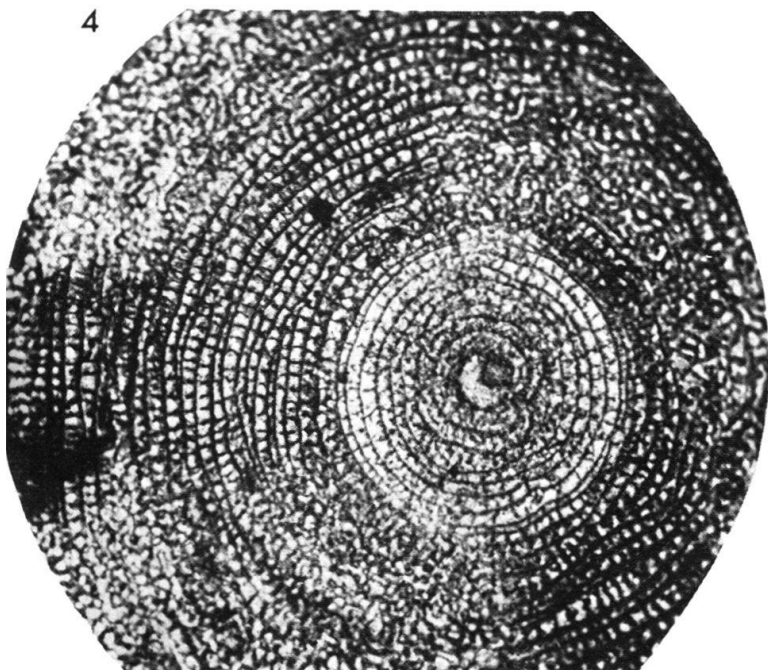
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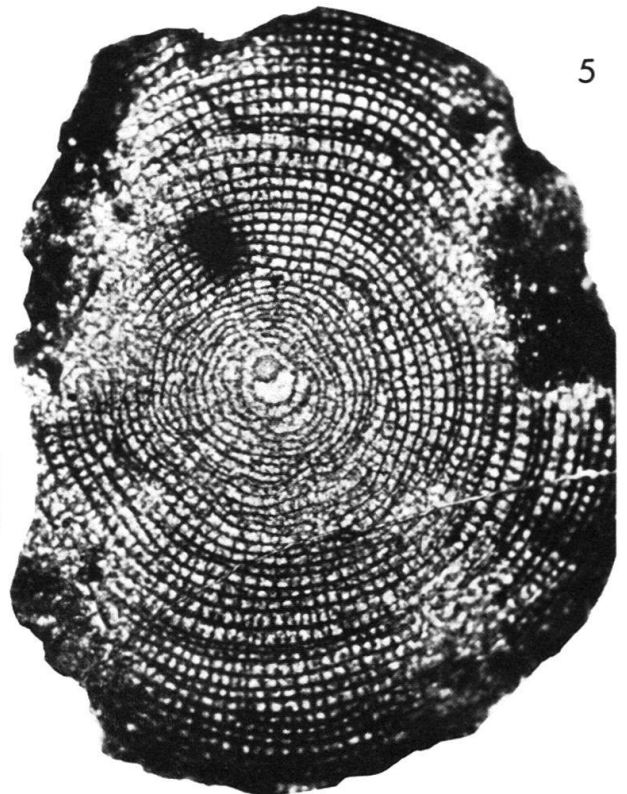
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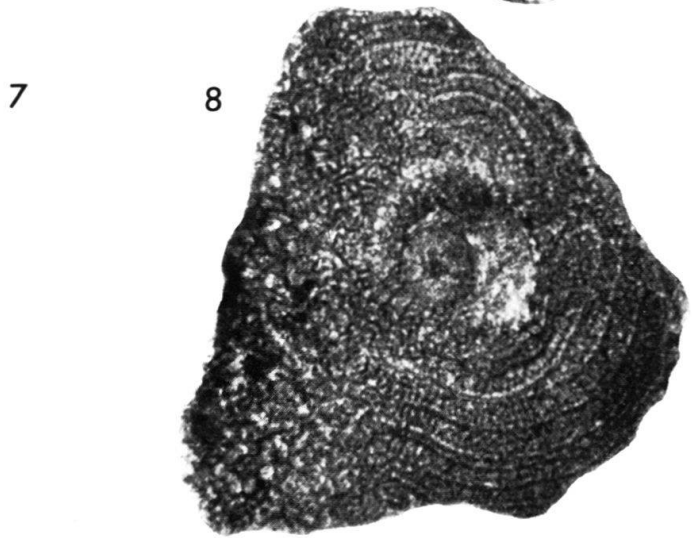
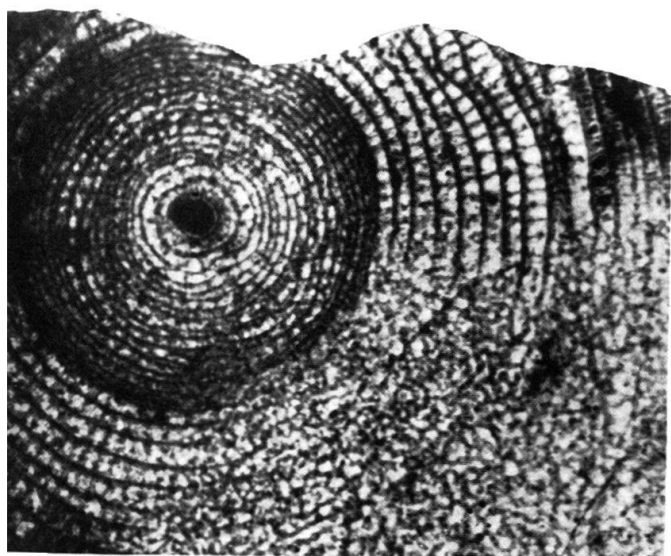
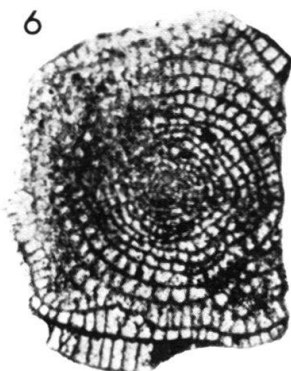
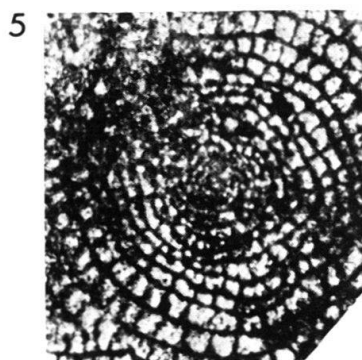
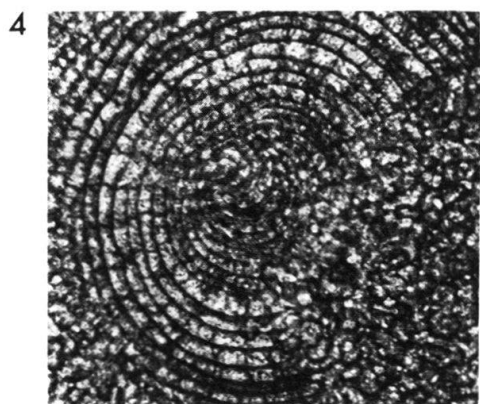
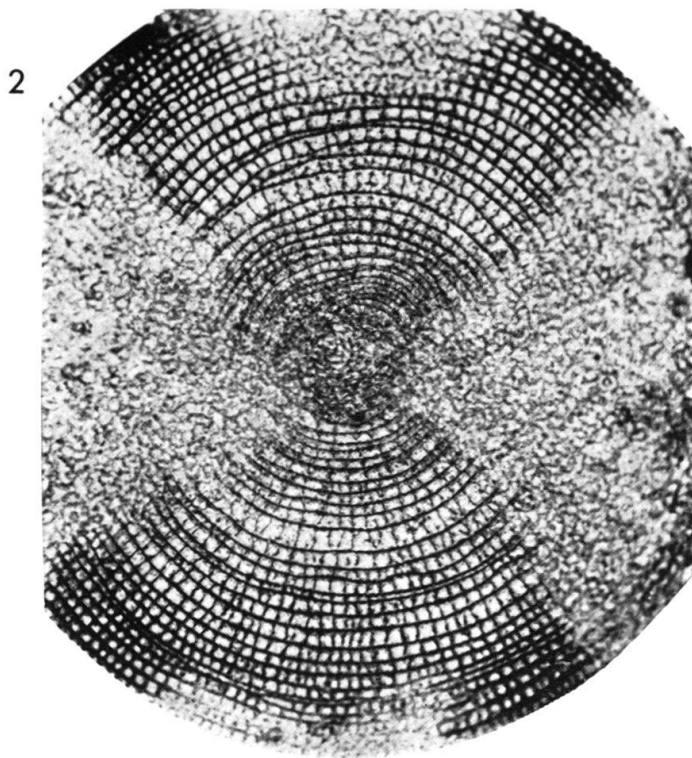
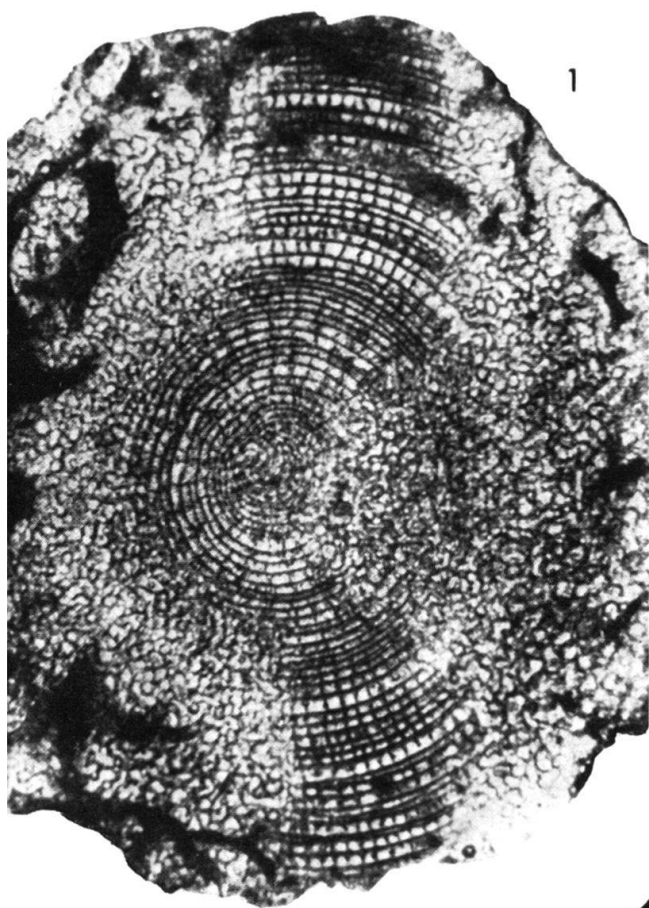
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### Plate 13

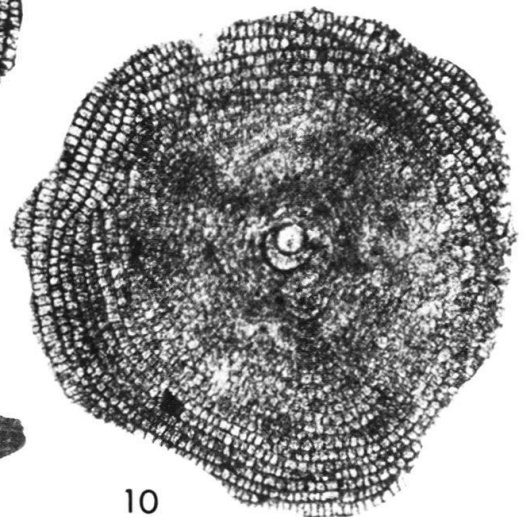
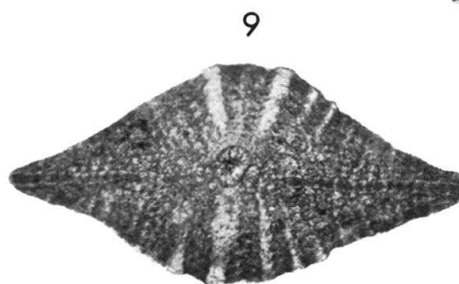
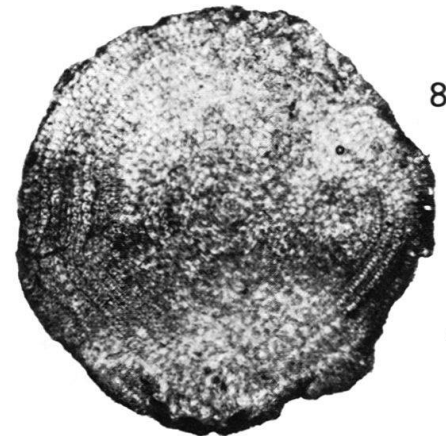
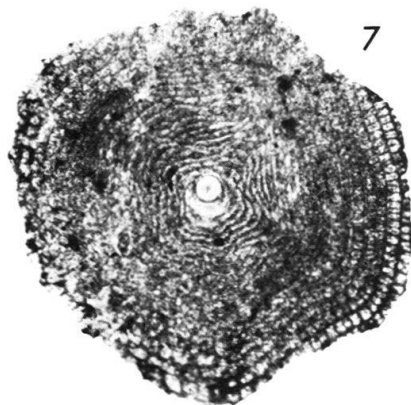
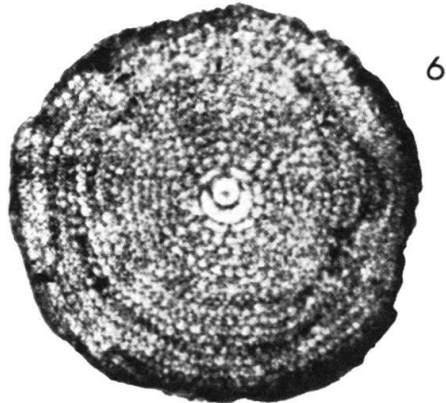
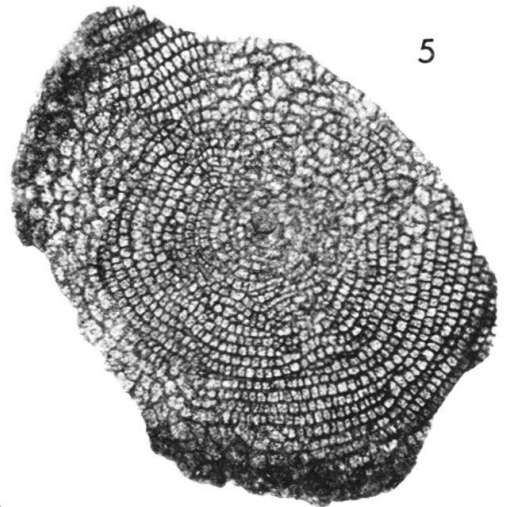
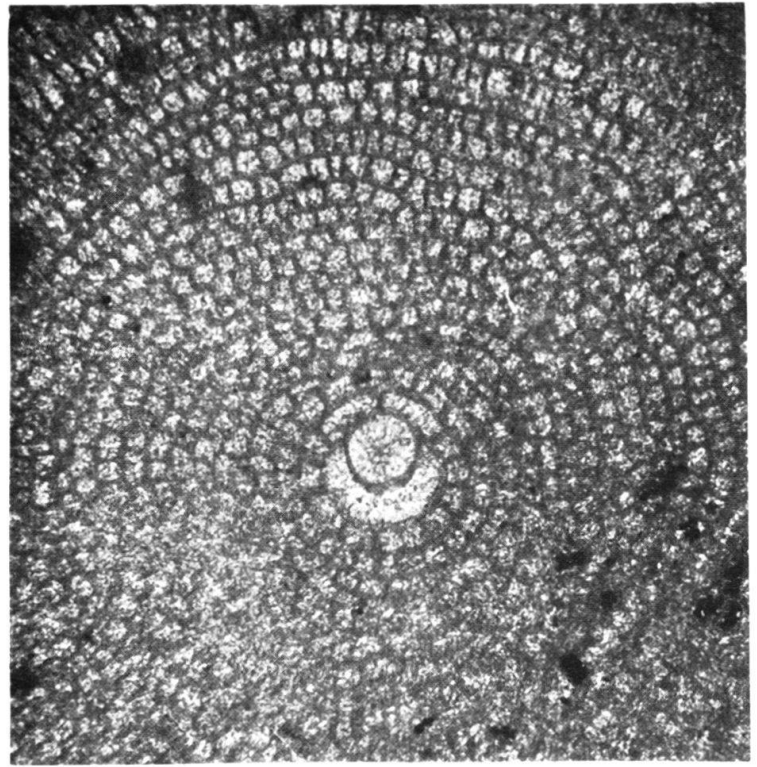
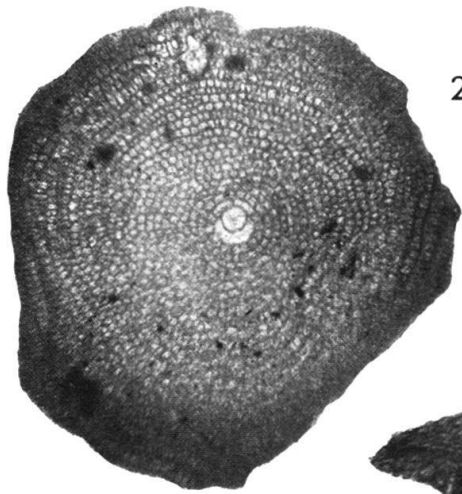
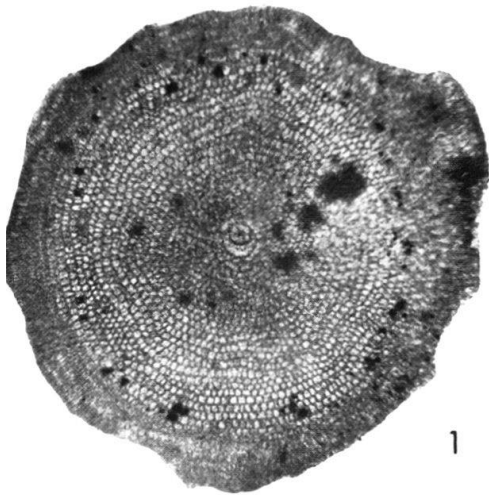
Fig.1	<i>Proporocyclina tobleri</i> (VAUGHAN & COLE) . . . . . B-form showing the "discocyclinoid" development of the nepionic stage (see Fig.4); largest pillarless specimen found in the type assemblage. K.3878. C 31196. × 38.	p. 547
Fig.2	<i>Proporocyclina tobleri</i> (VAUGHAN & COLE) . . . . . Pillared B-form. K.3878. C 31197. × 38.	p. 547
Fig.3	<i>Proporocyclina tobleri</i> (VAUGHAN & COLE) . . . . . Pillared A-form (note the extremely thin equatorial layer!). K.3878. C 31204. × 38.	p. 547
Fig.4	<i>Proporocyclina tobleri</i> (VAUGHAN & COLE) . . . . . Central part of a microspheric form (enlargement of Fig.1) showing the "discocyclinoid" nepiont. K.3878. C 31196. × 57.	p. 547
Fig.5	<i>Proporocyclina mirandana</i> (HODSON) . . . . . B-form, detail of Fig.6, showing the "discocyclinoid" nepionic development. K.3677. C 31174. × 57.	p. 549
Fig.6	<i>Proporocyclina mirandana</i> (HODSON) . . . . . B-form (see Fig.5). K.3677. C 31174. × 38.	p. 549
Fig.7	<i>Proporocyclina tobleri</i> (VAUGHAN & COLE) . . . . . Pillarless A-form, showing a period of retarded growth during its early neanic stage. K.3878. C 31209. × 38.	p. 547
Fig.8	<i>Pseudophragmina</i> s.s.sp. . . . . E.L.1440. C 31234. × 38.	p. 549



## Plate 14

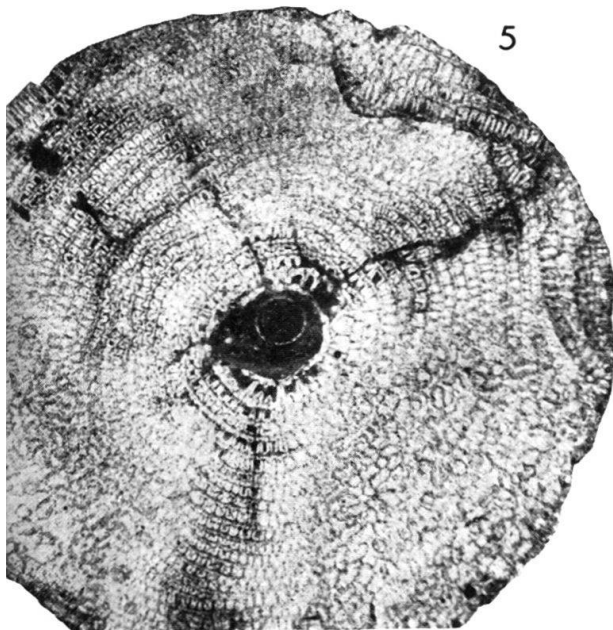
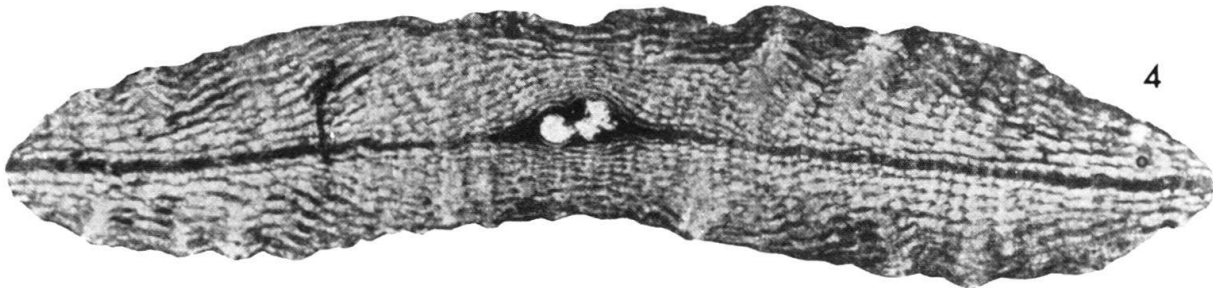
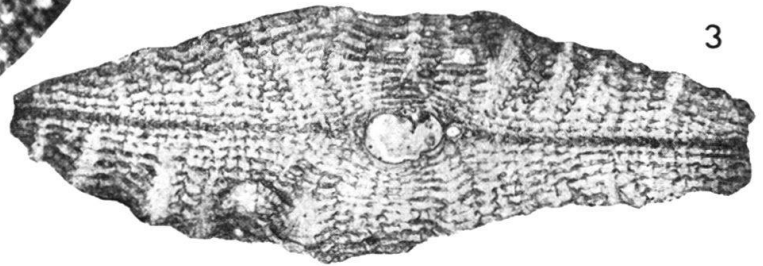
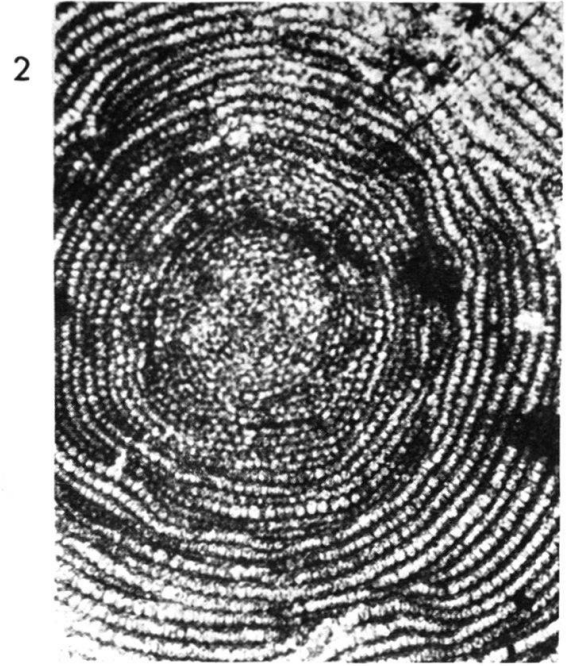
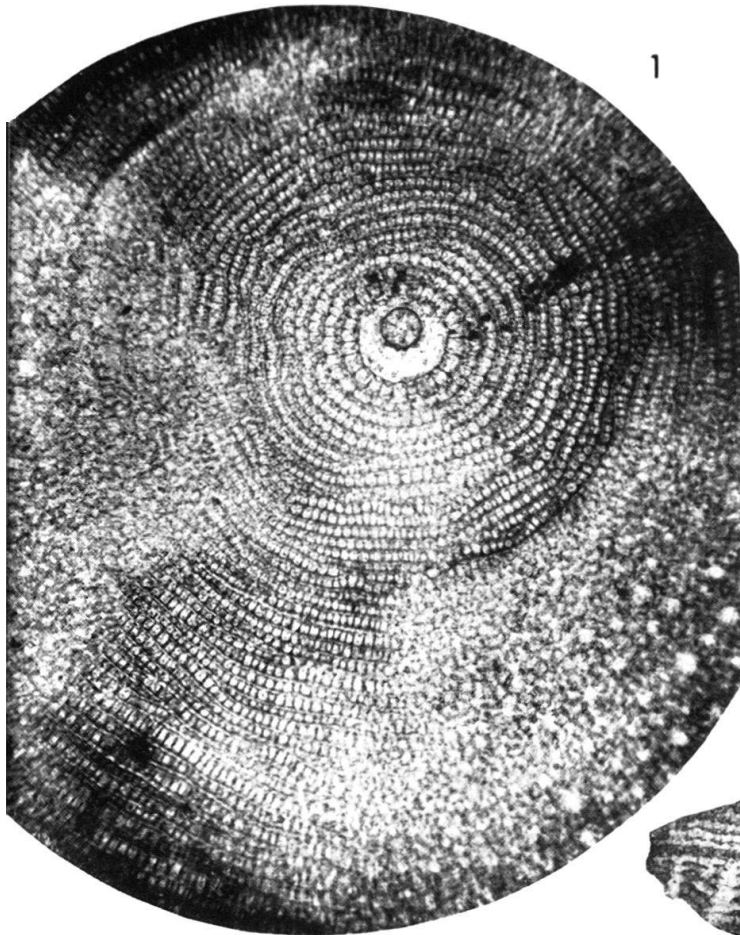
Fig. 1	<i>Neodiscocyclina barkeri</i> (VAUGHAN & COLE) . . . . . Phot. T. F. Grimsdale. K. 2951(?); specimen probably in Shell's collection in The Hague. × 38	p. 550
Fig. 2	Id., K. 2951(?), phot. Grimsdale (see Fig 3). Shell collection?. × 38.	
Fig. 3	Id., detail of Fig. 2, showing the typical symmetrical pair of large auxiliary chambers. × 114.	
Fig. 4	Id., K. 2951(?), phot. T. F. Grimsdale; "chainstich" aspect of median layer clearly visible in righthand part of photograph. Shell collection? × 38. .	p. 551
Fig. 5	<i>Neodiscocyclina ? caudriae</i> (VAUGHAN) . . . . . A-form, specimen with strongly pillared center and wide flaring flange. K. 2950. C 31139. × 38.	p. 552
Fig. 6	<i>Neodiscocyclina barkeri</i> (VAUGHAN & COLE) . . . . . Photograph deliberately out of focus to compensate for the granular disintegration of the walls through recrystallization. K. 2950. C 31146. × 38.	p. 550
Fig. 7	<i>Neodiscocyclina barkeri</i> (VAUGHAN & COLE) . . . . . Specimen with pronounced polygonal pattern of the equatorial layer in the central region. K. 2950. C 31137. × 38.	p. 551
Fig. 8	<i>Neodiscocyclina barkeri</i> (VAUGHAN & COLE) . . . . . B-form, with polygonal equatorial pattern (see also Pl. 23, Fig. 1). K. 2951. C 31141. × 38.	p. 551
Fig. 9	<i>Neodiscocyclina barkeri</i> (VAUGHAN & COLE) . . . . . As Fig. 4 (phot. T. F. Grimsdale), K. 2951(?). Shell collection? × 38.	p. 551
Fig. 10	<i>Neodiscocyclina barkeri</i> (VAUGHAN & COLE) . . . . . Large partly recrystallized specimen with polygonal equatorial pattern in center (A-form). L. 2950. C 31138. × 38.	p. 551





**Plate 15**

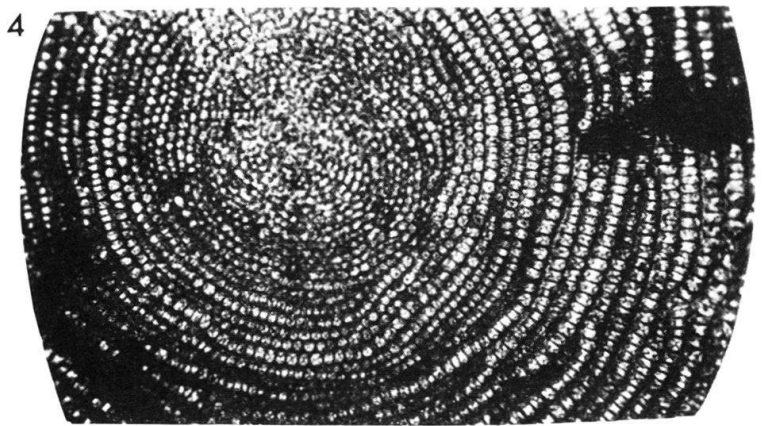
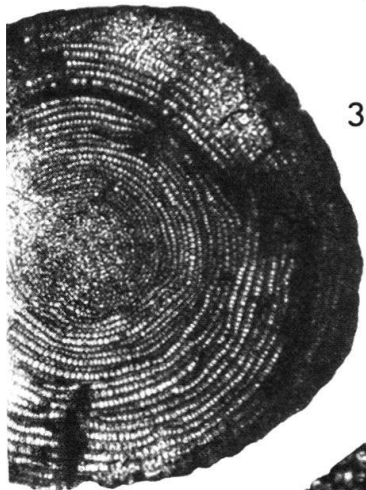
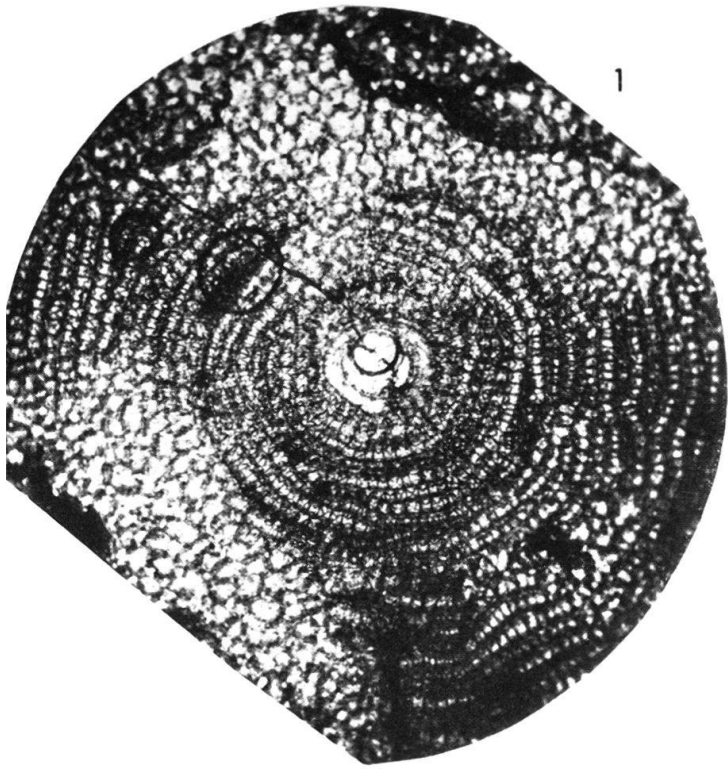
- Fig. 1      *Neodiscocyclina grimsdalei* (VAUGHAN & COLE) . . . . . p. 552  
A-form; one of VAUGHAN & COLE's type specimens of the species (phot.  
T. F. Grimsdale). Gr. 30 (= K. 2951). Specimen probably in the U. S. N. M.,  
Washington. × 38.
- Fig. 2      Id., B-form (same specimen as Fig. 6 and as Pl. 23, Fig. 2). K. 2951 B.  
C 31167. × 38.
- Fig. 3      Id., A-form (phot. T. F. Grimsdale). Gr. 30 (= K. 2951). Specimen proba-  
bly in Shell's collection in The Hague. × 38.
- Fig. 4      Id. (after VAUGHAN & COLE, 1941, Pl. 21, Fig. 3). K. 2951. U. S. N. M.,  
Washington. × 38.
- Fig. 5      Id., A-form (phot. T. F. Grimsdale). Gr. 30 (= K. 2951). Specimen proba-  
bly in Shell's collection in The Hague. × 38.
- Fig. 6      Id., B-form (same specimen as Fig. 2 and as Pl. 23, Fig. 2). K. 2951 B.  
C 31167. × 19.



## Plate 16

- Fig. 1 *Neodiscocyclina fonslacertensis* (VAUGHAN & COLE) . . . . . p. 554  
A-form; the periembryonic ring-chamber is seen clearly in this specimen;  
in the others (Fig. 2 and 5) the section is not exactly through the center and  
the ring is obscured by interfering lateral tissue. K. 2951 B. C 31154.  $\times 38$ .
- Fig. 2 Id. (see Fig. 6); K. 2951 B, C 31155.  $\times 38$ .
- Fig. 3 Id., B-form (see Fig. 4). K. 2951 B. C 31156.  $\times 19$ .
- Fig. 4 Id., detail of Fig. 3; the simple microspheric spiral has been actually ob-  
served in the thin section, but in the photograph it did not show up  
satisfactorily. K. 2951 B. C 31156.  $\times 38$ .
- Fig. 5 Id., A-form. K. 2951 B. C 31157.  $\times 38$ .
- Fig. 6 Id., same specimen as Fig. 2, general view. K. 2951 B. C 31155.  $\times 19$ .

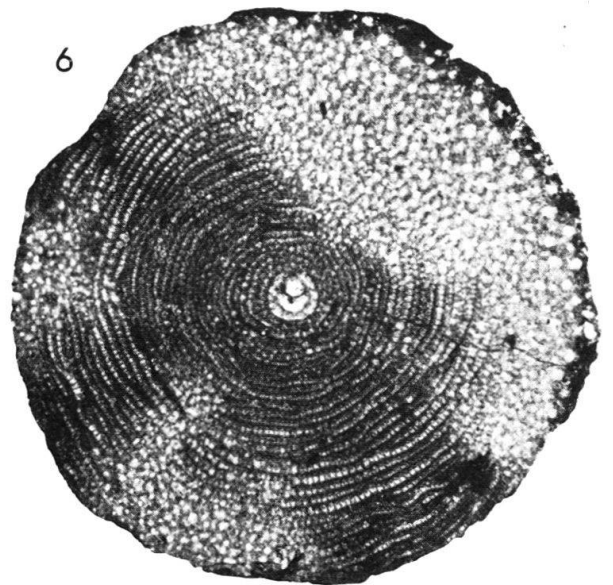




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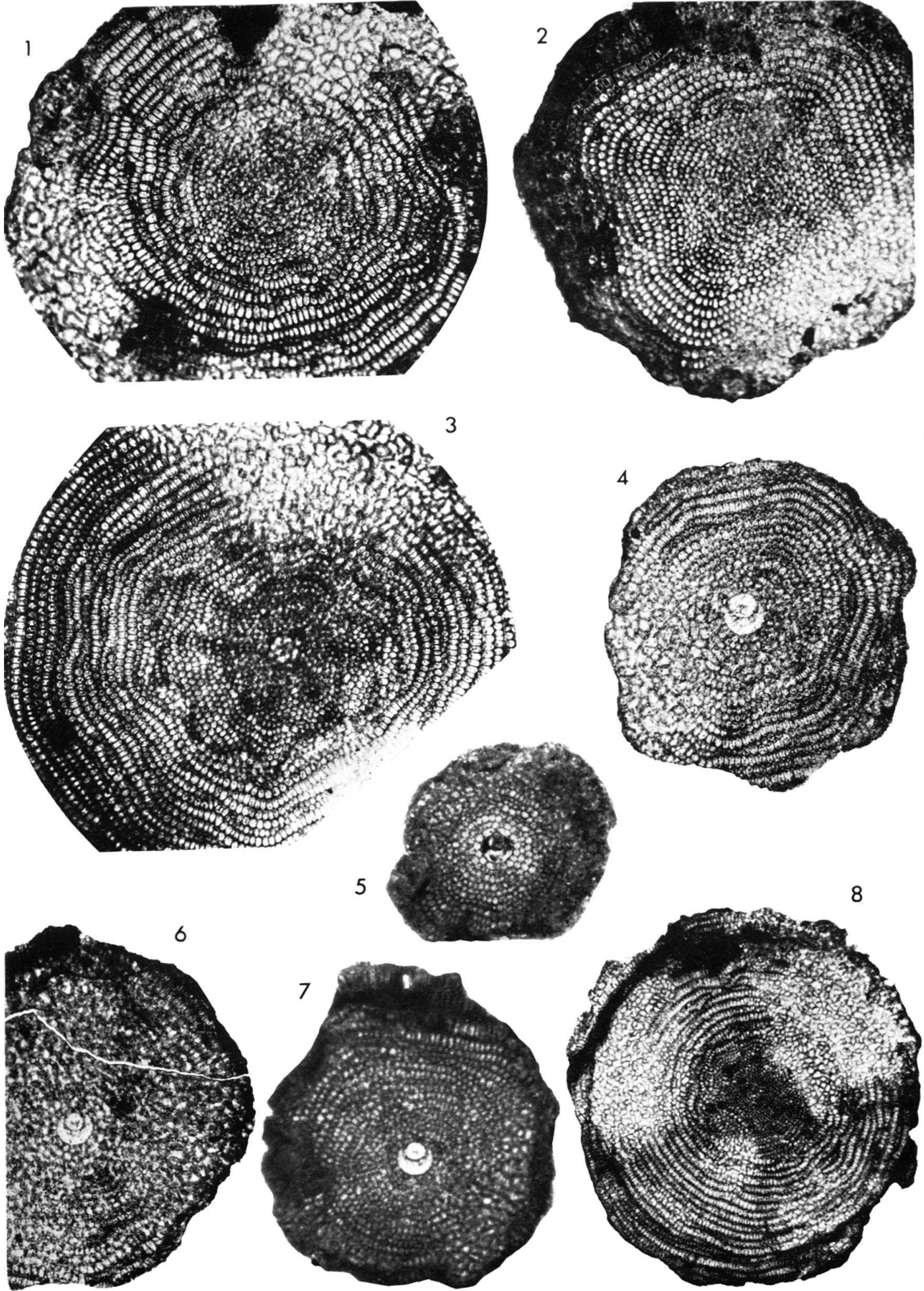


6



**Plate 17**

- Fig.1 *Neodiscoyclina bullbrooki* (VAUGHAN & COLE). . . . . p. 556  
B-form, showing the large rotaloid embryonic spiral. K.3878. C 31198.  
× 38.
- Fig.2 Id., K.3878, C 31199. × 38.
- Fig.3 Id., K.3878 (see also Pl.23, Fig.3). C 31200. × 38.
- Fig.4 Id., A-form with far-embracing “nephrolepidine” nucleoconch, complete  
ring of periembrionic chambers and undulating equatorial pattern.  
K.3878. C 31188. × 38.
- Fig.5 Id., A-form. K.10722. C 31217. × 38.
- Fig.6 Id., A-form. K.3878. C 31189. × 38.
- Fig.7 Id., A-form. K.10722. C 31218. × 38.
- Fig.8 Id., B-form, entire specimen, showing a polygonal arrangement of the  
equatorial layer in the center but circular growth towards the periphery.  
K.3878. C 31201. × 19.

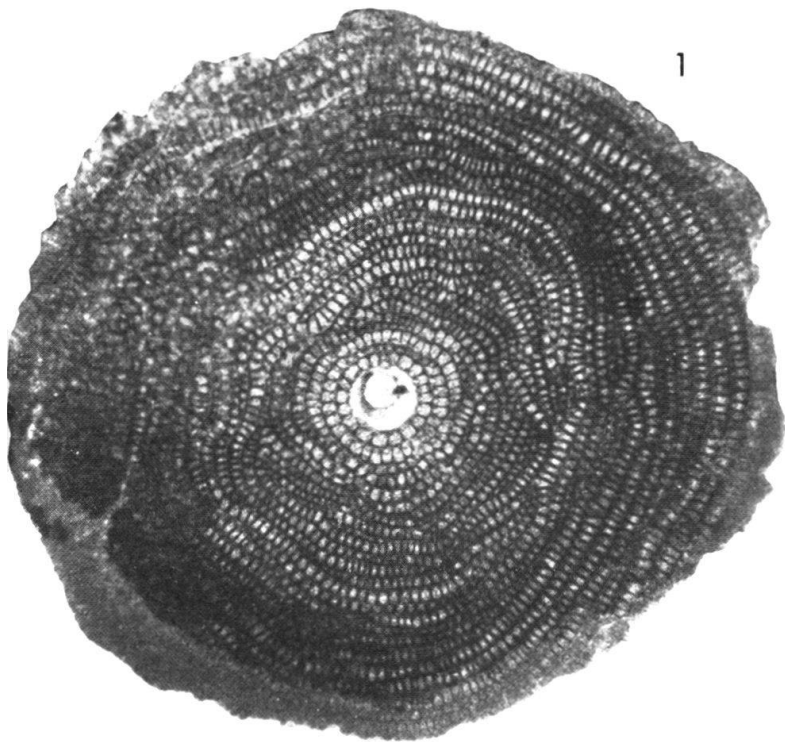


## Plate 18

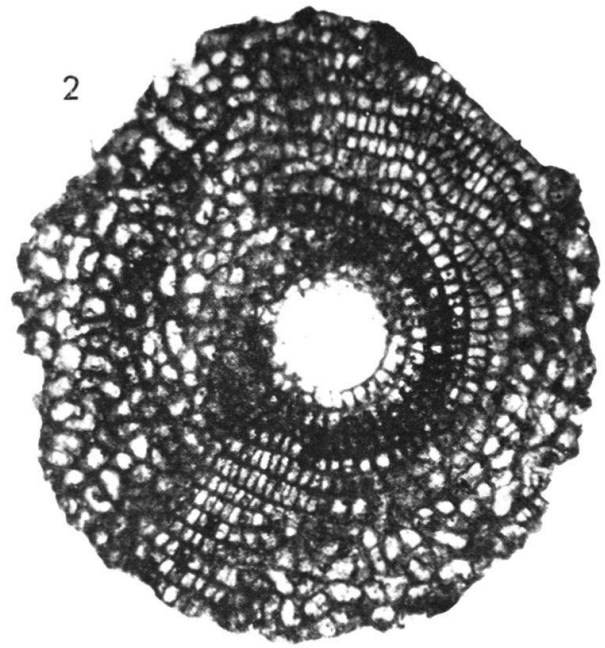
All figures × 38.

Fig. 1	<i>Neodiscocyclina mauryae</i> n. sp. . . . .	p. 558
	Holotype. K. 10722. C 31219.	
Fig. 2	<i>Neodiscocyclina anconensis</i> (BARKER) . . . . .	p. 559
	Barbados, Murphys beds, S. 711 (coll. A. Senn). C 31257.	
Fig. 3	<i>Neodiscocyclina anconensis</i> (BARKER) . . . . .	p. 559
	Compare the size of the lateral chambers and especially the height of the equatorial layer with those of <i>N. mauryae</i> , Fig. 4! Barbados, Murphys beds, S. 711 (coll. A. Senn). C 31258.	
Fig. 4	<i>Neodiscocyclina mauryae</i> n. sp. . . . .	p. 559
	Paratype. K. 10721. C 31213.	
Fig. 5	<i>Neodiscocyclina mauryae</i> n. sp. . . . .	p. 558
	Paratype. E. L. 1440. C 31231.	
Fig. 6	<i>Neodiscocyclina mauryae</i> n. sp. . . . .	p. 558
	Paratype. K. 10721. C 31215.	

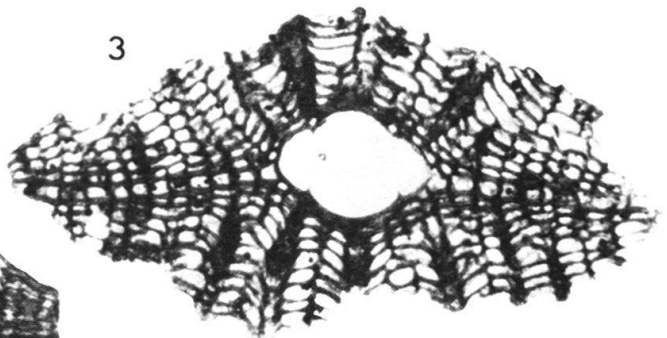




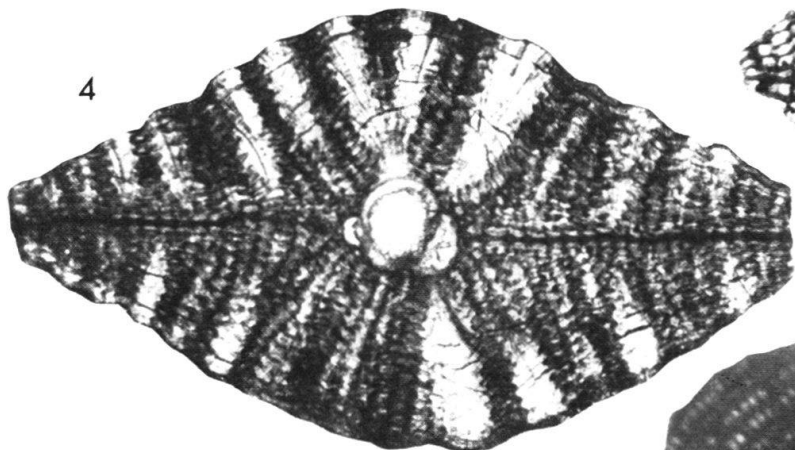
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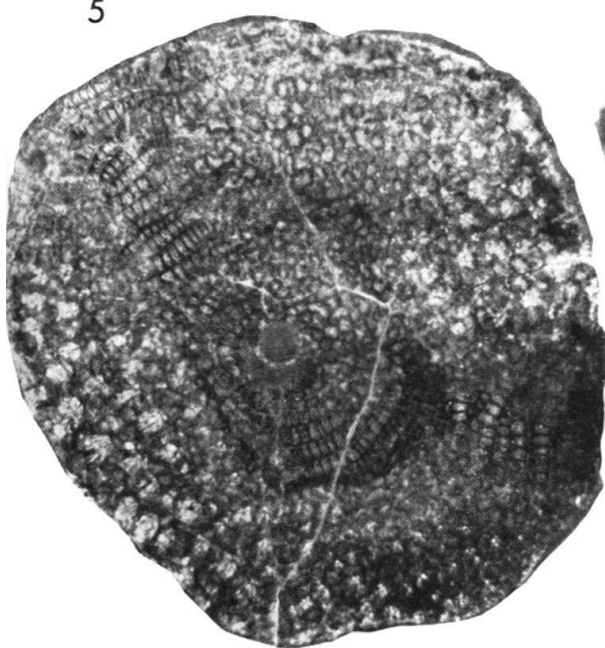
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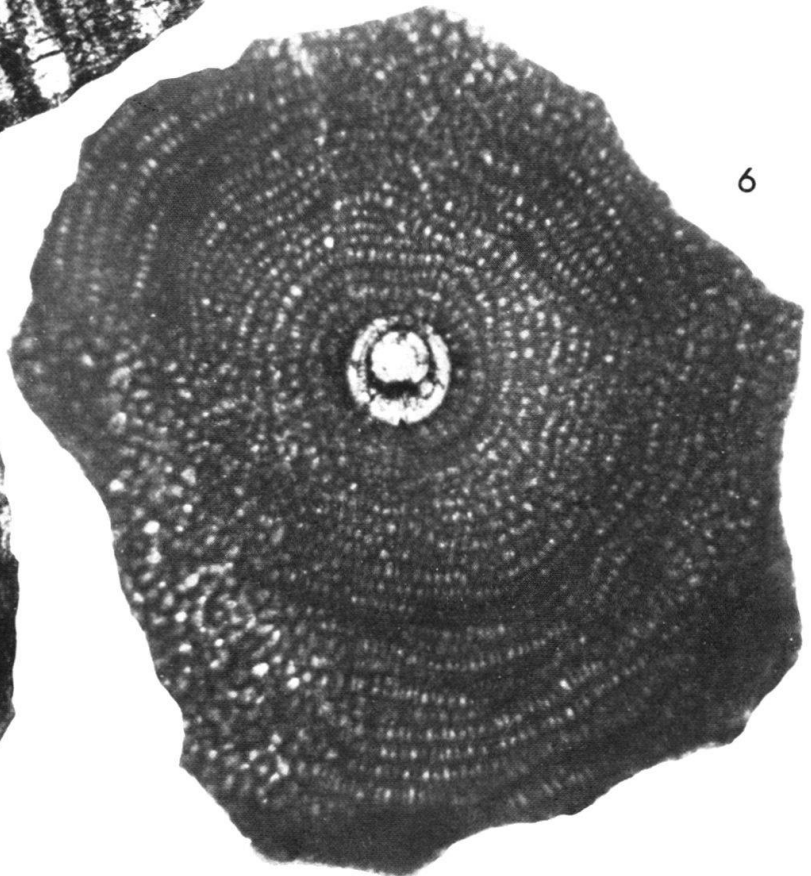
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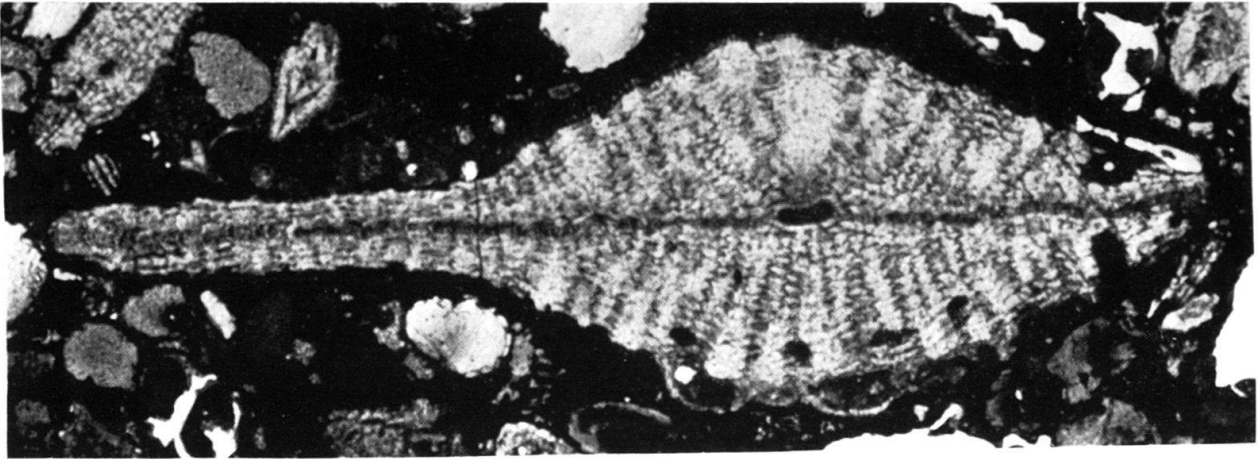


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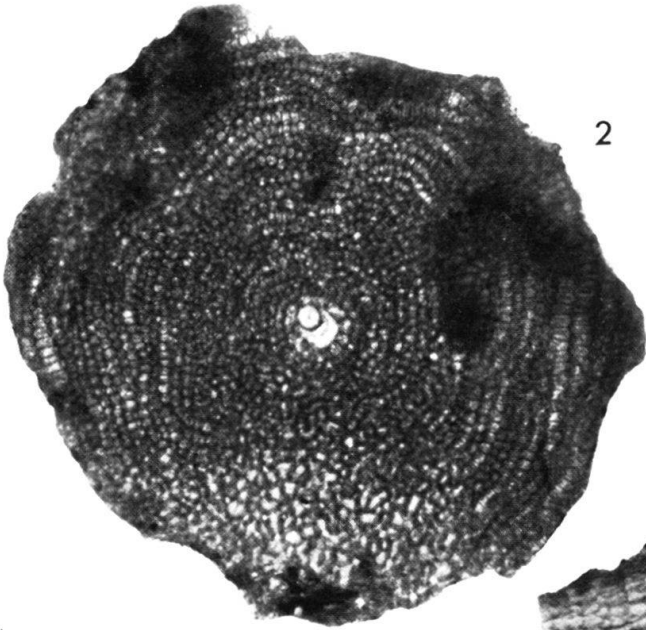
## Plate 19

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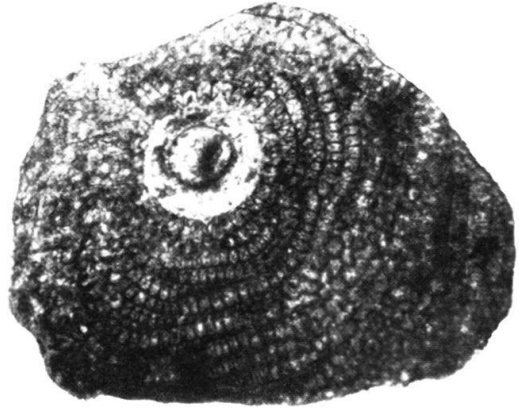
- Fig. 1 *Neodiscocyclina mauryae* n. sp. . . . . p. 559  
Paratype. A-form, specimen in hard rock matrix, with intact flange on one side. J.S.1955. C 31275.
- Fig. 2 *Neodiscocyclina bullbrooki* (VAUGHAN & COLE). . . . . p. 557  
A-form with a "nephrolepidine" nucleoconch, a pair of large symmetric auxiliary chambers over the protoconch and an undulating equatorial pattern. K.10721. C 31216.
- Fig. 3 *Neodiscocyclina mauryae* n. sp.. . . . . p. 558  
Paratype. A-form . K.10721. C 31214.
- Fig. 4 *Neodiscocyclina mauryae* n. sp. or *N. bullbrooki* (VAUGHAN & COLE). . . . . p. 559  
Probably microspheric; oblique tangential section J.S.1955. C 31265.
- Fig. 5 *Neodiscocyclina bullbrooki* (VAUGHAN & COLE). . . . . p. 556  
B-form (after VAUGHAN & COLE 1941, Pl. 21, Fig. 5). K.3878. U. S. N. M., Washington.
- Fig. 6 *Neodiscocyclina mauryae* n. sp.. . . . . p. 559  
Paratype. A-form, worn specimen (the section also contains two specimens of *Amphistegina undecima* n. sp.). J.S.1955. C 31270.



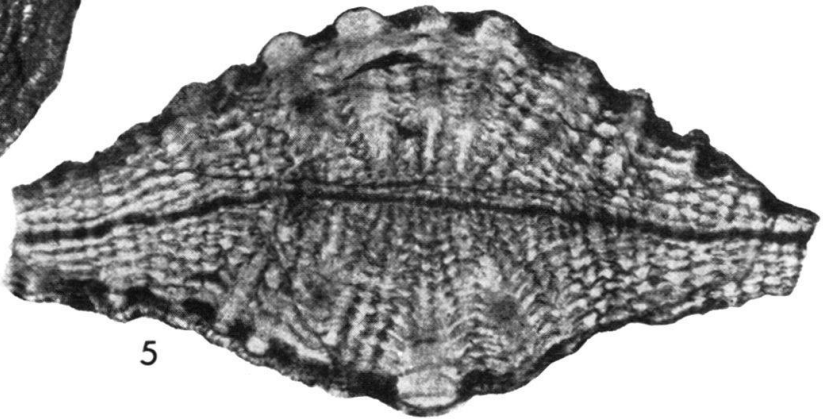
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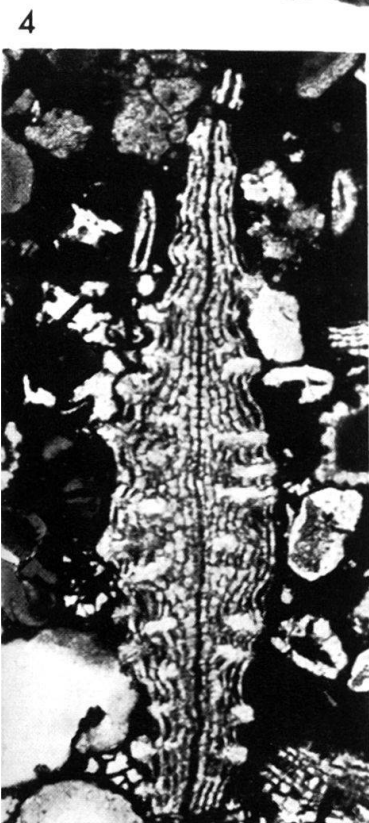
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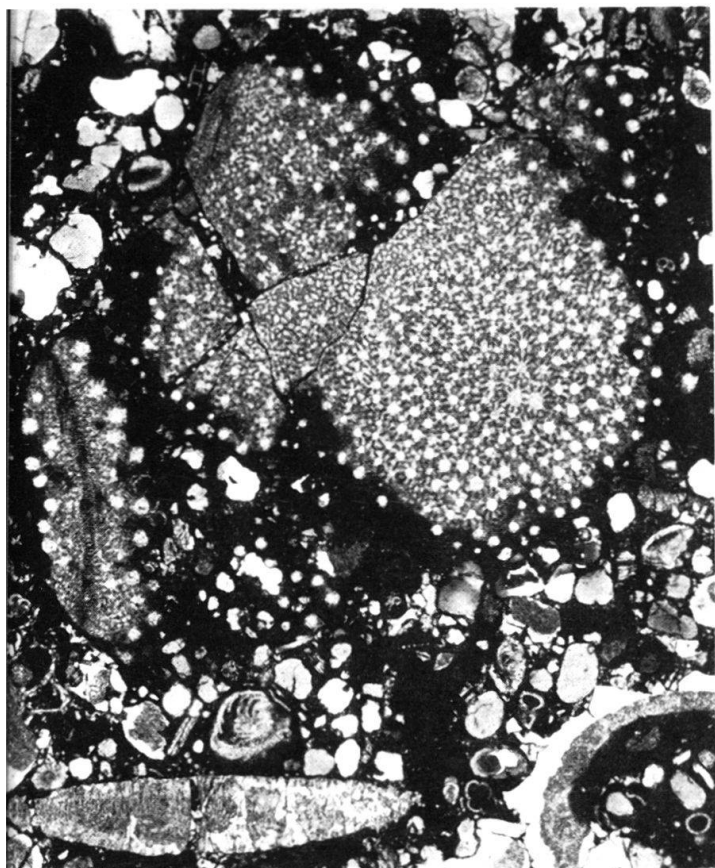
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## Plate 20

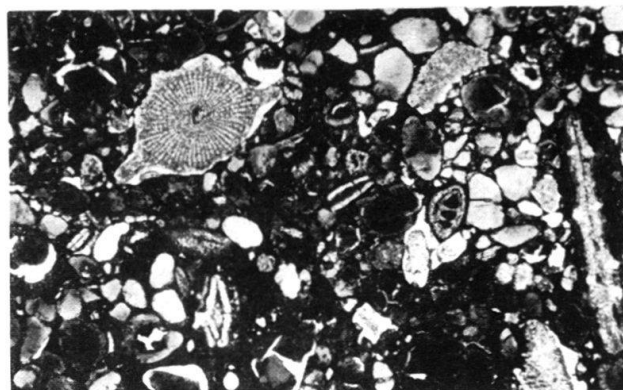
Random thin sections of the hard glauconitic limestone J.S. 1955; all figures  $\times 14$ .

- Fig. 1 *Neodiscocyclina mauryae* n.sp. . . . . p. 559  
B-forms, superficial-horizontal and oblique sections; *Amphistegina undecima* n.sp. *Globorotalia* s.l., echinoids, mollusks (right bottom). C 31274.
- Fig. 2 Transverse section of a thorny echinoid spine (a section of such a spine, when passing between the thorns without touching them, can look exactly like a recrystallized specimen of *Sphaerogypsina*). C 31271.
- Fig. 3 *Neodiscocyclina mauryae* n.sp., specimen with its wide thin flange intact on one side; echinoid spine and -plate. C 31272.
- Fig. 4 *Neodiscocyclina mauryae* n.sp., B-form; oblique section showing local thickening of the peripheral region, suggesting undulation of the flange. C 31268.
- Fig. 5 *Neodiscocyclina mauryae* n.sp., B-form; vertical section through the peripheral part of the test, showing the presence of heavy pillars even on the thin flange. Also in this picture are the A-form of *N. mauryae*, *Proporocyclina tobleri*, *Robulus*, etc. C 31273.
- Fig. 6 *Neodiscocyclina mauryae* n.sp., A-form, rolled specimen, paratype; *Proporocyclina tobleri*. C 31276.
- Fig. 7 *Neodiscocyclina mauryae* n.sp., B-form, oblique section; pillared *Proporocyclina tobleri*, *Amphistegina undecima*, bryozoans, echinoid spine, opaque algae. C 31269.
- Note: All rock sections show that the fossils are crushed by pressure after deposition: they are autochthonous, not reworked (see Part 1, p. 415). The rounded white patches in some of the pictures are holes caused by the loss of glauconite grains during the process of grinding of the thin section.

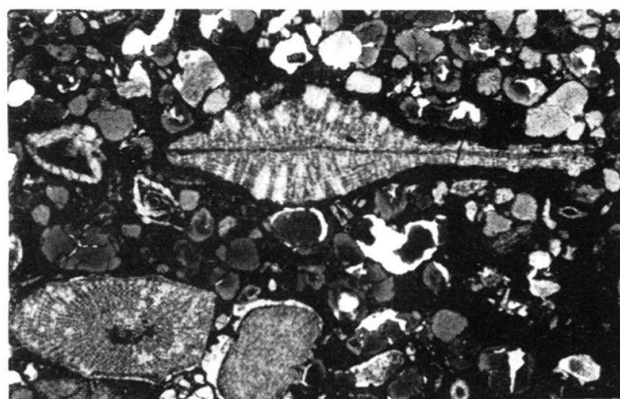




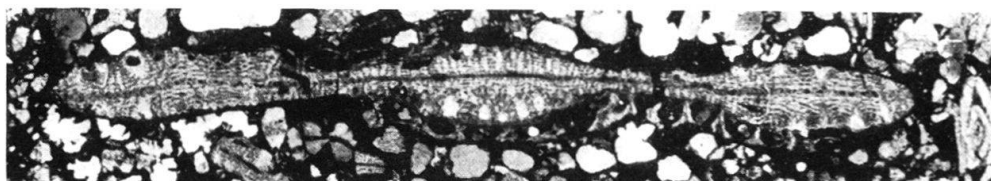
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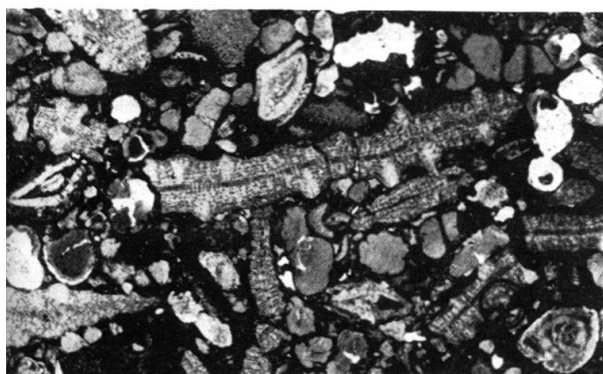
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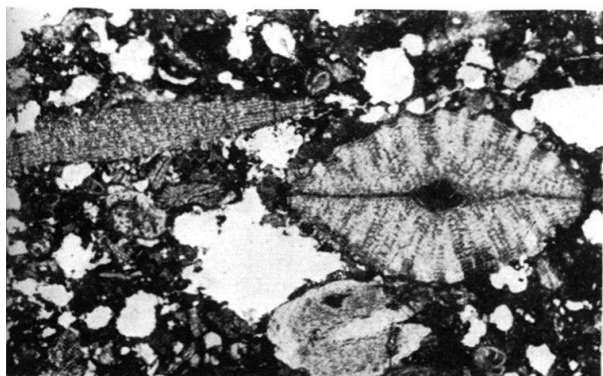
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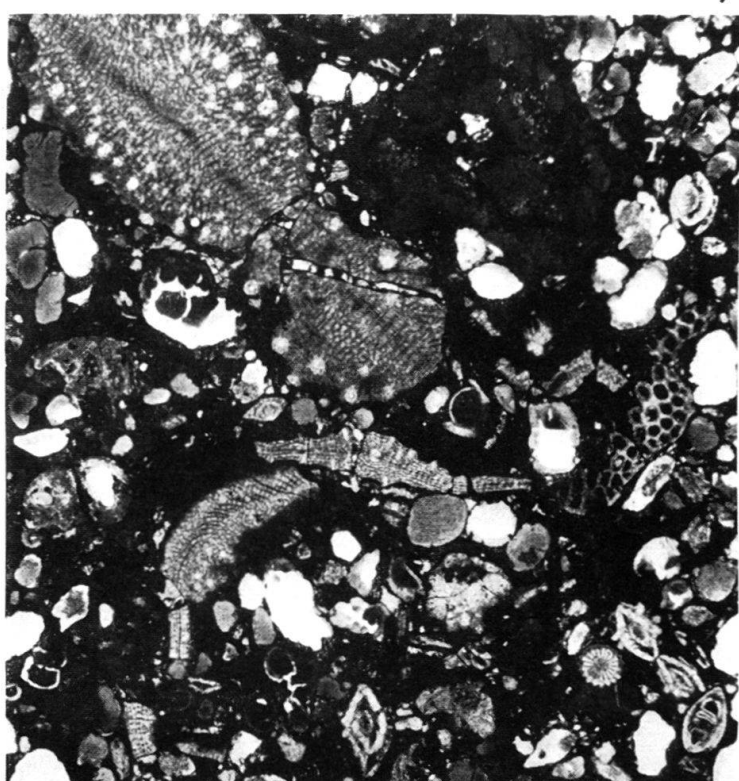
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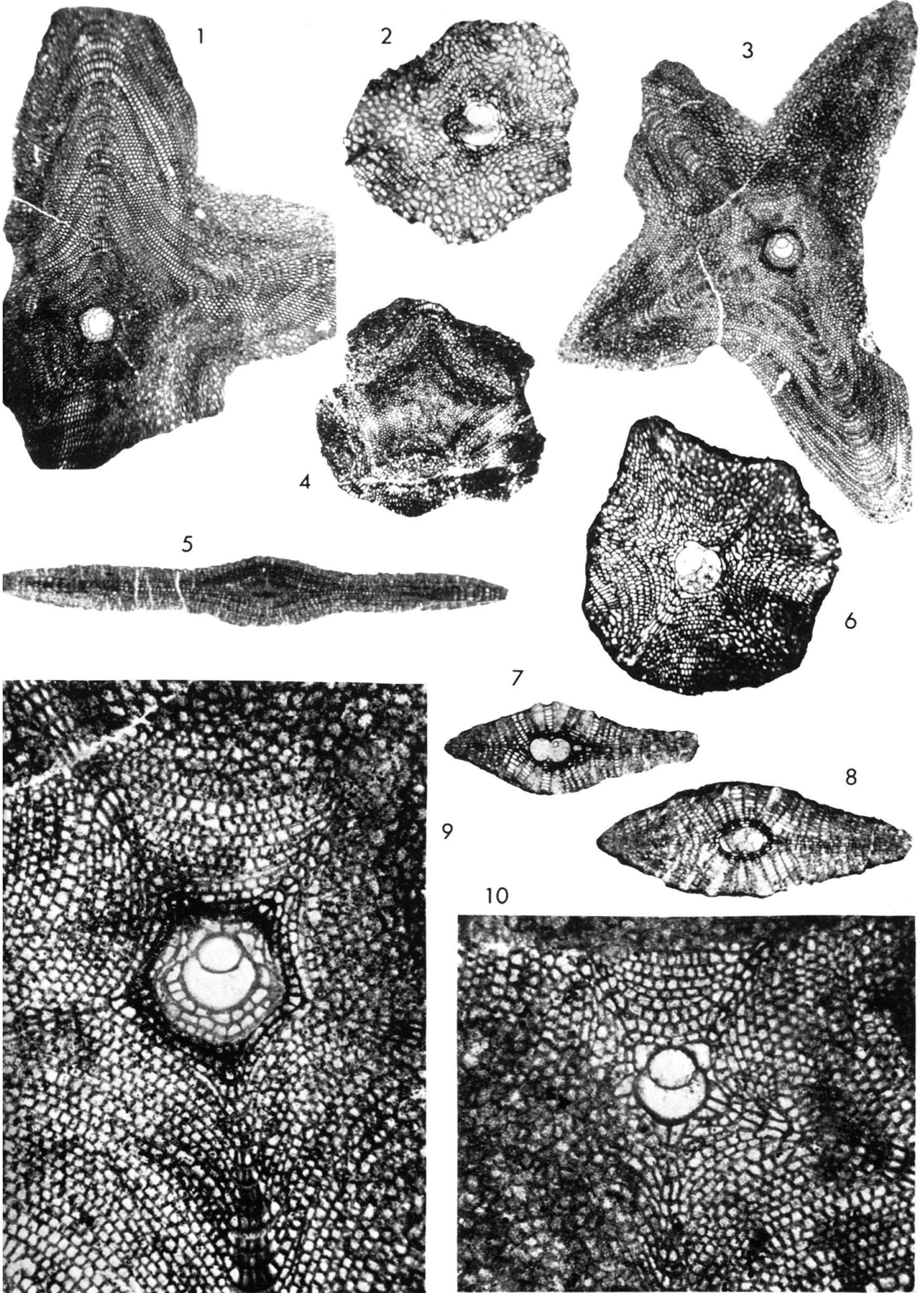


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## Plate 21

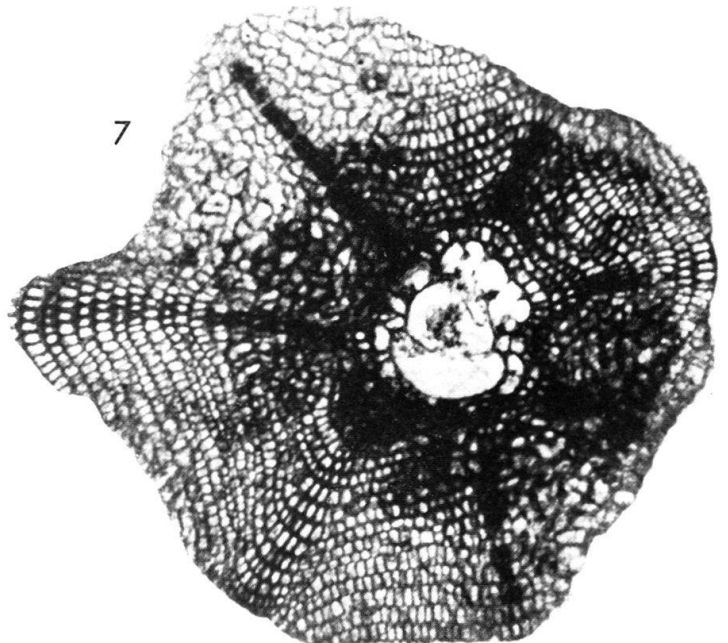
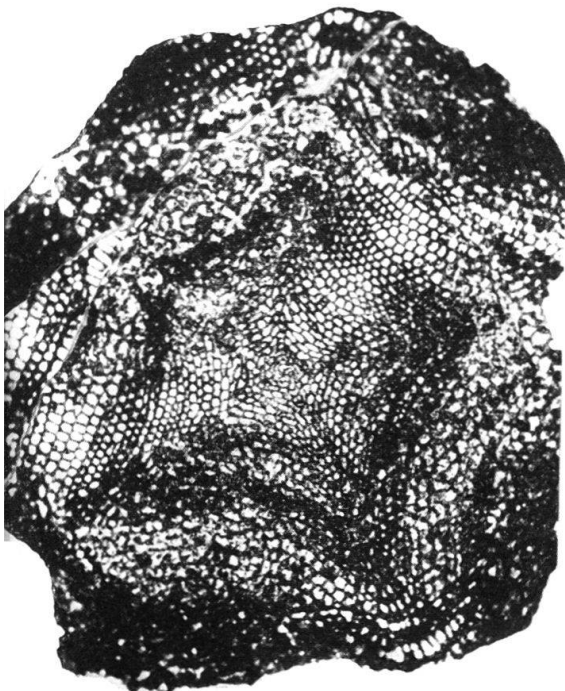
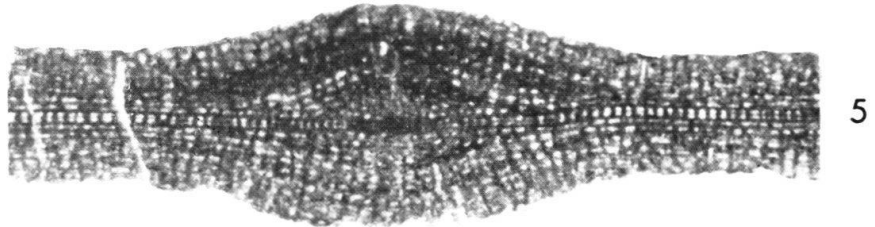
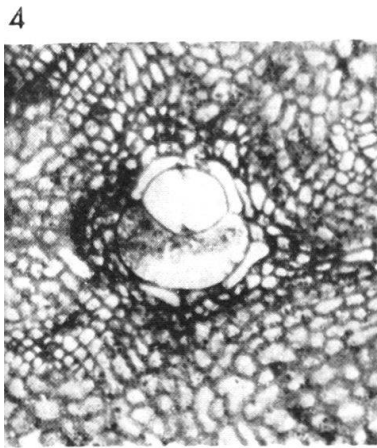
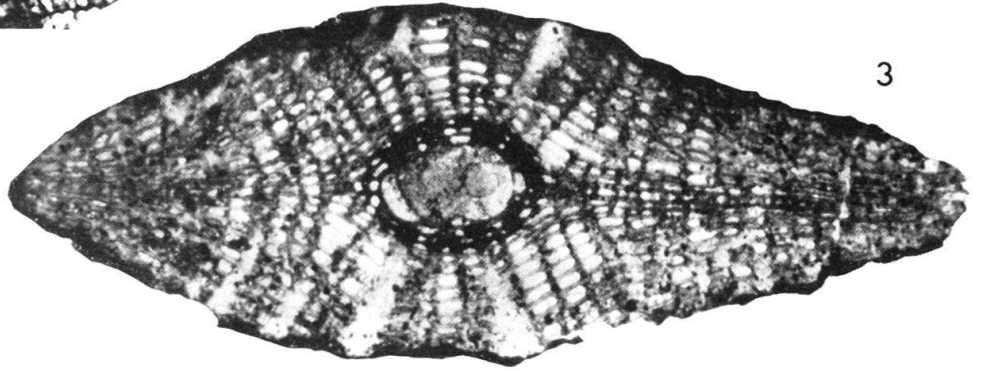
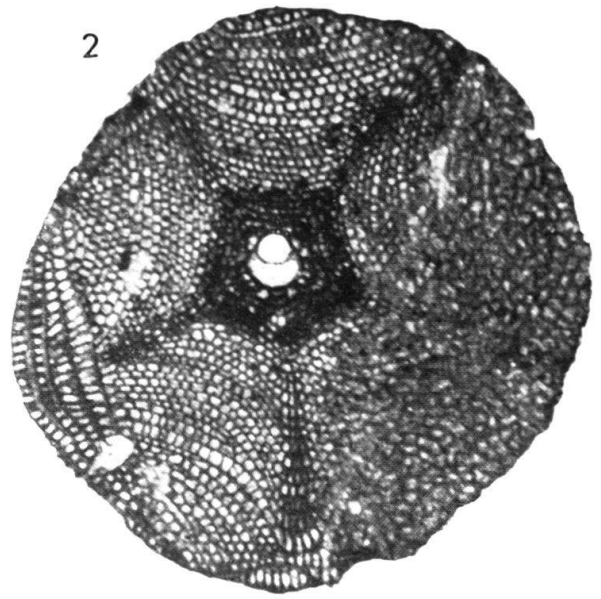
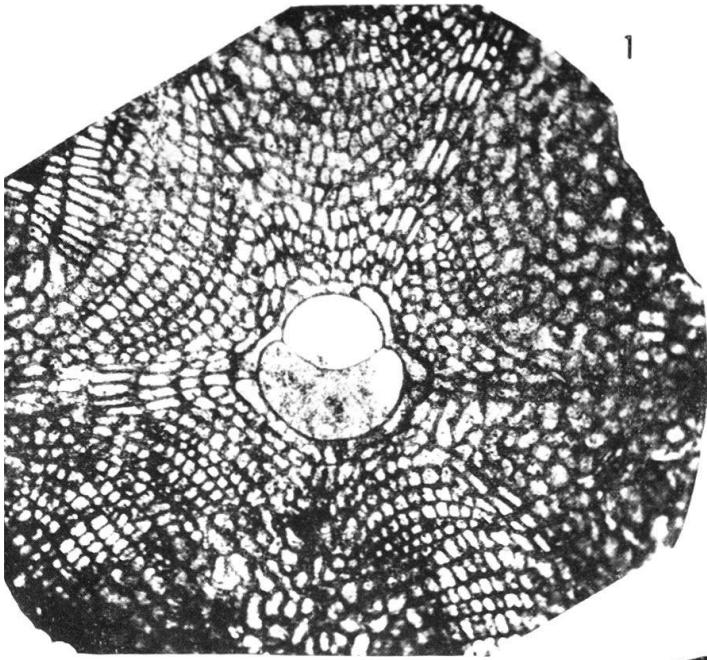
Fig. 1	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . A-form (phot. T. F. Grimsdale); see Pl. 23, Fig. 4). K. 2854. Specimen probably in Shell's collection in The Hague. × 19.	p. 561
Fig. 2	<i>Asterocyclina soldadensis</i> n. sp. . . . . Paratype. Note the large lateral chambers (see Pl. 22, Fig. 4). K. 2651. C 31093. × 19.	p. 563
Fig. 3	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . A-form (see Fig. 9). K. 1316. C 31061. × 19.	p. 561
Fig. 4	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . B-form (see Pl. 22, Fig. 6). K. 2854. C 31118. × 19.	p. 562
Fig. 5	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . A-form, off-center vertical section (see Pl. 22, Fig. 5). K. 2854. C 31120. × 19.	p. 561
Fig. 6	<i>Asterocyclina soldadensis</i> n. sp. . . . . Holotype (see Pl. 22, Fig. 1). K. 2651. C 31094. × 19.	p. 563
Fig. 7	<i>Asterocyclina soldadensis</i> n. sp. . . . . Paratype. K. 2651. C 31095. × 19.	p. 563
Fig. 8	<i>Asterocyclina soldadensis</i> n. sp. . . . . Paratype. See Pl. 22, Fig. 3. K. 2651. C 31096. × 19.	p. 563
Fig. 9	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . Detail of Fig. 3. K. 1316. C 31061. × 71.	p. 561
Fig. 10	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . K. 1316. C 31060. × 71.	p. 561



## Plate 22

All figures × 38.

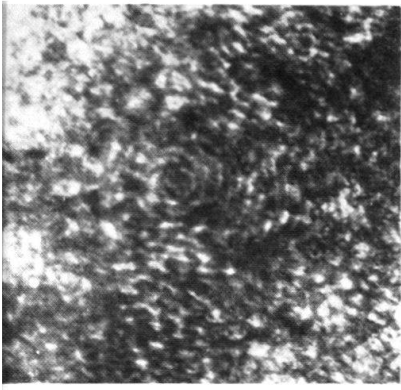
Fig. 1	<i>Asterocyclina soldadensis</i> n.sp. . . . . Holotype (same specimen as Pl. 21, Fig. 6). K. 2651. C 31094.	p. 563
Fig. 2	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . Regenerated and worn lenticular specimen. K. 1499. C 31074.	p. 561
Fig. 3	<i>Asterocyclina soldadensis</i> n.sp.. . . . . Paratype. Same specimen as Pl. 21, Fig. 8); compare Fig. 5. K. 2651. C 31096.	p. 563
Fig. 4	<i>Asterocyclina soldadensis</i> n.sp.. . . . . Paratype. Detail of Pl. 21, Fig. 2. K. 2651. C 31093.	p. 563
Fig. 5	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . A-form, detail of Pl. 21, Fig. 5. K. 2854. C 31120.	p. 561
Fig. 6	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . B-form (same specimen as Pl. 21, Fig. 4). K. 2854. C 31118.	p. 562
Fig. 7	<i>Asterocyclina</i> aff. <i>monticellensis</i> COLE & PONTON . . . . . With solid radial rods embedded in the lateral tissue. K. 1499. C 31277.	p. 564



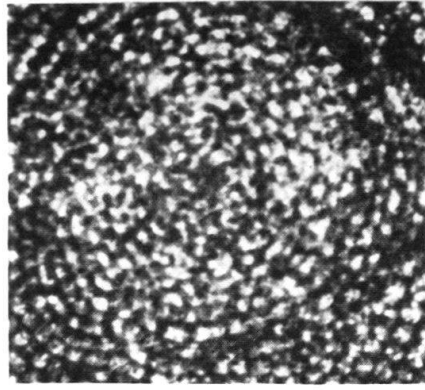
## Plate 23

Fig. 1	<i>Neodiscocyclina barkeri</i> (VAUGHAN & COLE) . . . . . B-form (same specimen as Pl. 14, Fig. 8), central part with embryonic spiral of the "rotaloid" type. K. 2951. C 31141. × 85.	p. 551
Fig. 2	<i>Neodiscocyclina grimsdalei</i> (VAUGHAN & COLE) . . . . . B-form (same specimen as Pl. 15, Fig. 2 and 6), central part with small "rotaloid" embryonic spiral. K. 2951 B. C 31167. × 85.	p. 553
Fig. 3	<i>Neodiscocyclina bullbrooki</i> (VAUGHAN & COLE). . . . . B-form (same specimen as Pl. 17, Fig. 3), central part with large "rotaloid" embryonic spiral, ventral side. K. 3878. C 31200. × 85.	p. 556
Fig. 4	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . A-form, detail of Pl. 21, Fig. 1 (photo T. F. Grimsdale). K. 2854. Specimen probably in Shell's collection in The Hague. × 76.	p. 561
Fig. 5	<i>Asterocyclina asterisca</i> (GUPPY) . . . . . B-form, center showing simple embryonic spiral. K. 2854. C 31119. × 85.	p. 562
Fig. 6	<i>Amphistegina undecima</i> n.sp. . . . . Paratype. B-form. K. 10722. C 31221. × 34.	p. 564
Fig. 7	Id., K. 10721. C 31212. × 34.	
Fig. 8	<i>Amphistegina undecima</i> n.sp. . . . . Holotype, B-form. K. 3878. C 31193. × 34.	p. 564
Fig. 9	<i>Amphistegina undecima</i> n.sp. . . . . Paratype. K. 3878. C 31194. × 34.	p. 564
Fig. 10	Id., K. 3878. C 31195. × 34.	
Fig. 11	Id., K. 10722. C 31222. × 34.	
Fig. 12	Id., K. 10722. C 31223. × 34.	
Fig. 13	Id., A-form, K. 10722. C 31224. × 34.	
Fig. 14	Id., A-form, K. 10722. C 31225. × 34.	
Fig. 15	Id., A-form, E. L. 1440. C 31232. × 34.	
Fig. 16	Id., B-form, E. L. 1440. C 31233. × 34.	
Fig. 17	<i>Amphistegina pauciseptata</i> n.sp. . . . . Paratype. K. 3878. C 31190. × 34.	p. 565
Fig. 18	Id., K. 3878. C 31191. × 34.	
Fig. 19	<i>Amphistegina cf. pauciseptata</i> n.sp. . . . . K. 10722. C 31226. × 34.	p. 565
Fig. 20	<i>Amphistegina undecima</i> n.sp. . . . . Paratype. Flat variety. J.S. 1955. C 31266. × 34.	p. 564
Fig. 21	Id., J.S. 1955. C 31267. × 34.	
Fig. 22	<i>Amphistegina pauciseptata</i> n.sp. . . . . Holotype. K. 3878. C 31192. × 34.	p. 565

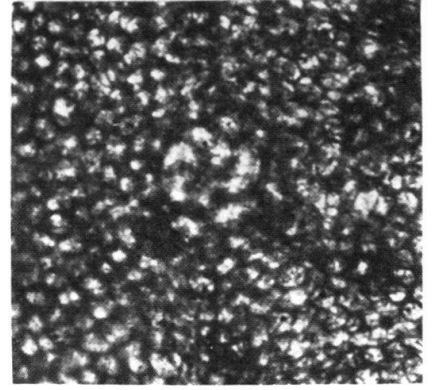




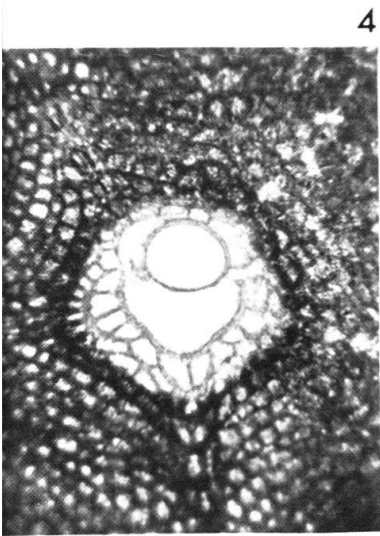
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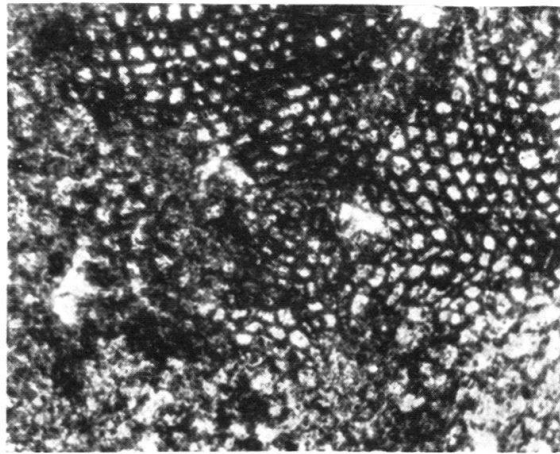
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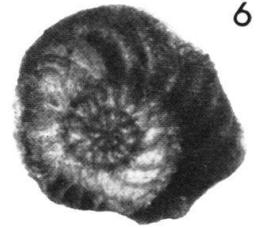
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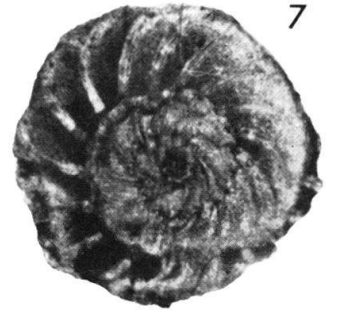
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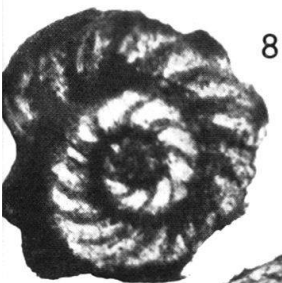
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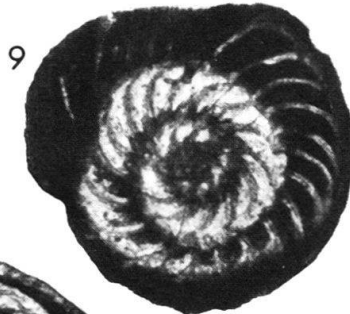
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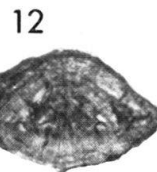


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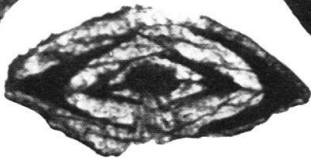


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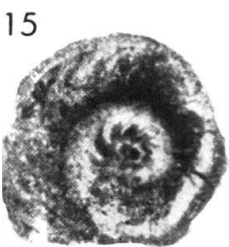
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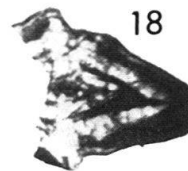
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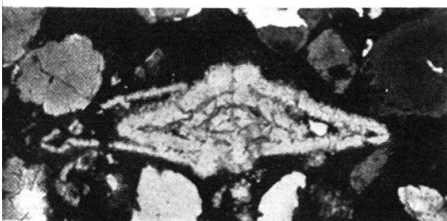
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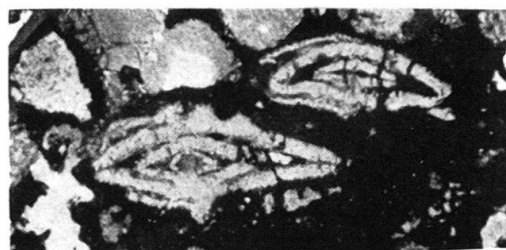
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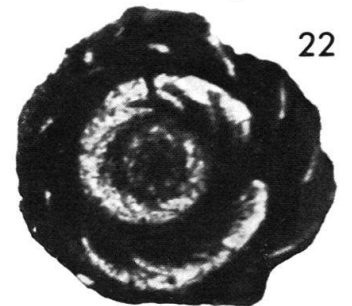
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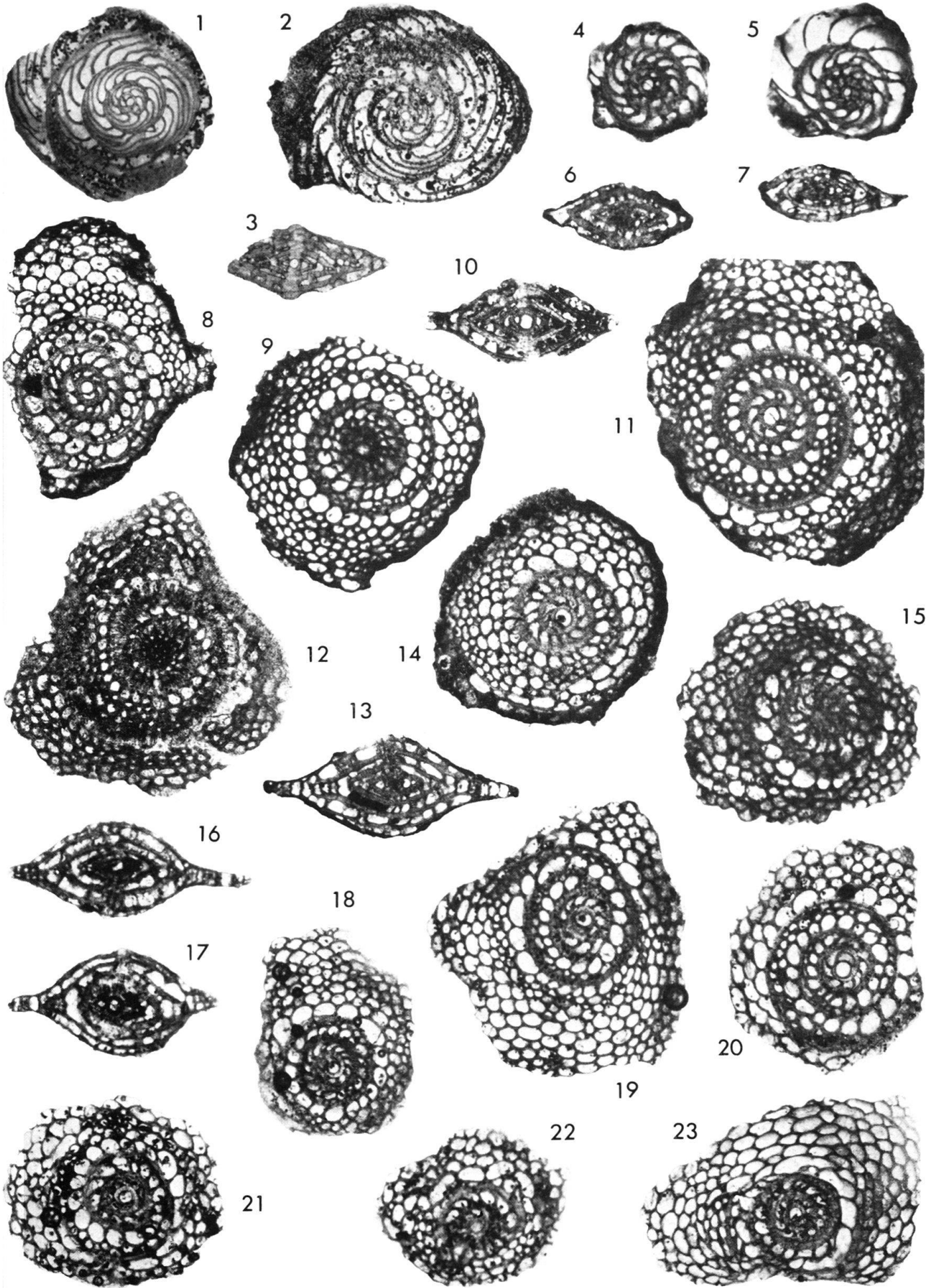


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## Plate 24

All figures × 34.

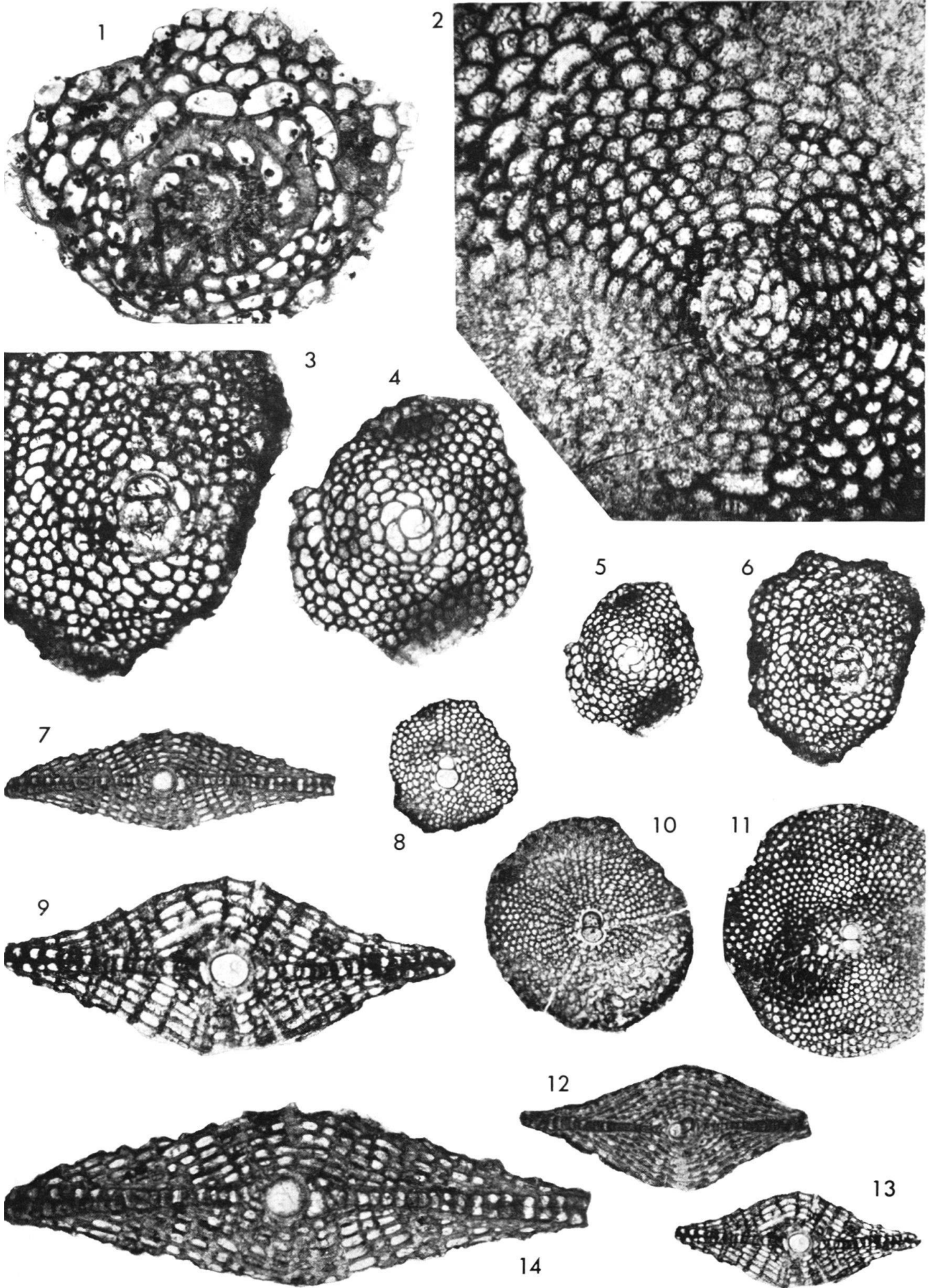
Fig. 1	<i>Amphistegina grimsdalei</i> n.sp. . . . . Paratype. K. 2854. Specimen in Shell's collection in The Hague.	p. 566
Fig. 2	<i>Amphistegina grimsdalei</i> n.sp. . . . . Holotype (compare Pl. 5, Fig. 9, 13). Flat flaring form. K. 2651. C 31091.	p. 566
Fig. 3	<i>Amphistegina grimsdalei</i> n.sp. . . . . Paratype. K. 2854. Specimen in Shell's collection in The Hague.	p. 566
Fig. 4–7	<i>Amphistegina</i> sp. [cf. <i>pregrimsdalei</i> (CAUDRI)] . . . . . K. 2652. Fig. 4: C 31104; Fig. 5: C 31105; Fig. 6: C 31106; Fig. 7: C 31107.	p. 566
Fig. 8	<i>Helicosteginopsis soldadensis</i> (GRIMSDALE). . . . . A-form, specimen with narrow spiral. K. 2651. C 31097.	p. 570
Fig. 9	Id., A-form (compare Fig. 12). K. 1499. C 31072.	
Fig. 10	Id., K. 2651. C 31098.	
Fig. 11	Id., similar to Fig. 8 but with a smaller number of undivided amphistegine chambers. K. 2651. C 31099.	
Fig. 12	Id., B-form (compare Fig. 9). K. 1499. C 31073.	
Fig. 13	Id., A-form, K. 2651. C 31100.	
Fig. 14	Id., specimen with a wider-opening spiral than those of Fig. 8 and 11. K. 2651. C 31101.	
Fig. 15	Id., specimen with well-defined central body and thin flange, without any lateral tissue; internal spiral not continued in the flange. K. 3741. C 31187.	
Fig. 16	Id., flanged form with a slight tendency to form lateral tissue (lefthand part of photo);? transition to <i>Helicocyclina paucispira</i> (BARKER & GRIMSDALE). J.S. 1223. C 31236.	
Fig. 17	Id., like Fig. 16 (see especially upper righth corner). J.S. 1223. C 31237.	
Fig. 18	<i>Helicocyclina paucispira</i> (BARKER & GRIMSDALE)? . . . . . Wide-flanged juvenile specimen with closed-off spiral. J.S. 1223. C 31242.	p. 571
Fig. 19	Transition form between <i>Helicosteginopsis soldadensis</i> (GRIMSDALE) and <i>Helicocyclina paucispira</i> (BARKER & GRIMSDALE), externally with a small central body and a wide thin flange, internally with a narrow but abruptly ending spiral; no lateral tissue observed. J.S. 1223. C 31238. . . . .	p. 571
Fig. 20	<i>Helicosteginopsis soldadensis</i> (GRIMSDALE). . . . . Externally with a small central body and a wide flange; spiral continuing to the edge. J.S. 1223. C 31239.	p. 570
Fig. 21	<i>Helicocyclina paucispira</i> (BARKER & GRIMSDALE)? . . . . . Juvenile, irregular and non-typical specimen with a long narrow spiral, discontinued in the flange. J.S. 1223. C 31243.	p. 571
Fig. 22	<i>Helicocyclina paucispira</i> (BARKER & GRIMSDALE) . . . . . Juvenile form with a very small central body and a wide flange, internally with a very short closed spiral of mostly undivided amphistegine chambers (see Pl. 25, Fig. 1); no lateral tissue observed. J.S. 1223. C 31241.	p. 571
Fig. 23	<i>Helicocyclina paucispira</i> (BARKER & GRIMSDALE)? . . . . . Wide-flanged specimen with very small central body, internally irregular, but spiral seemingly discontinued and closed-off; no lateral chambers observed. J.S. 1223. C 31240.	p. 571



## Plate 25

Fig. 1	<i>Helicocyclina paucispira</i> (BARKER & GRIMSDALE) . . . . . Same specimen as Pl. 24, Fig. 22). J.S. 1223. C 31241. × 69.	p. 571
Fig. 2	<i>Helicolepidina spiralis</i> TOBLER . . . . . B-form, initial part, slightly off-center on the ventral side, showing the "rotaloid" development of the embryonic spiral. K. 3677. C 31172. × 57.	p. 572
Fig. 3	<i>Helicolepidina spiralis</i> TOBLER . . . . . A-form with two auxiliary chambers giving rise to three nepionic spirals (see Fig. 6). K. 2951 B. C 31149. × 34.	p. 572
Fig. 4	<i>Helicolepidina spiralis</i> TOBLER . . . . . A-form with one auxiliary chamber giving rise to two nepionic spirals (see Fig. 5). K. 3691. C 31175. × 34.	p. 572
Fig. 5	Id., same specimen as Fig. 4. C 31175. × 19.	
Fig. 6	Id., same specimen as Fig. 3. C 31149. × 19.	
Fig. 7	<i>Lepidocyclina peruviana</i> CUSHMAN . . . . . See Fig. 14. K. 1500. C 31079. × 19.	p. 573
Fig. 8	Id., juvenile specimen (see Pl. 26, Fig. 3). K. 1500. C 31080. × 19.	
Fig. 9	Id., vertical section showing the "duplication" of the equatorial layer in the peripheral region and the "solid separation wall" between the two layers (see Fig. 13). K. 1500. C 31081. × 34.	
Fig. 10	Id., specimen with very pronounced radial rows of equatorial chambers. K. 2951 B. C 31152. × 19.	
Fig. 11	Id., K. 1500. C 31082. × 19.	
Fig. 12	Id., K. 1500. C 31078. × 19.	
Fig. 13	Id., K. 1500 (same specimen as Fig. 9). C 31081. × 19.	
Fig. 14	Id., vertical section showing the "duplication" of the equatorial layer (same specimen as Fig. 7). K. 1500. C 31079. × 34.	

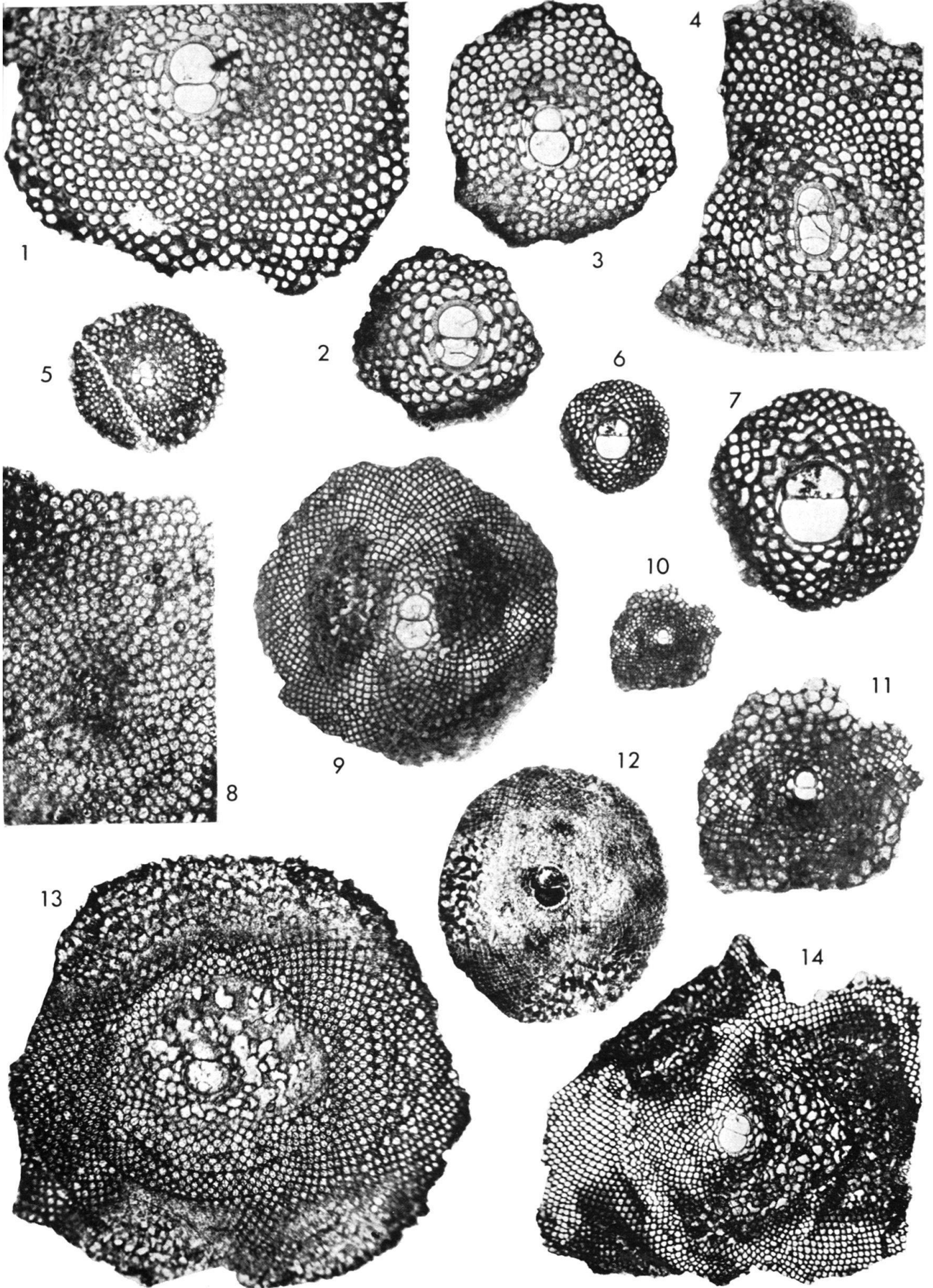






## Plate 26

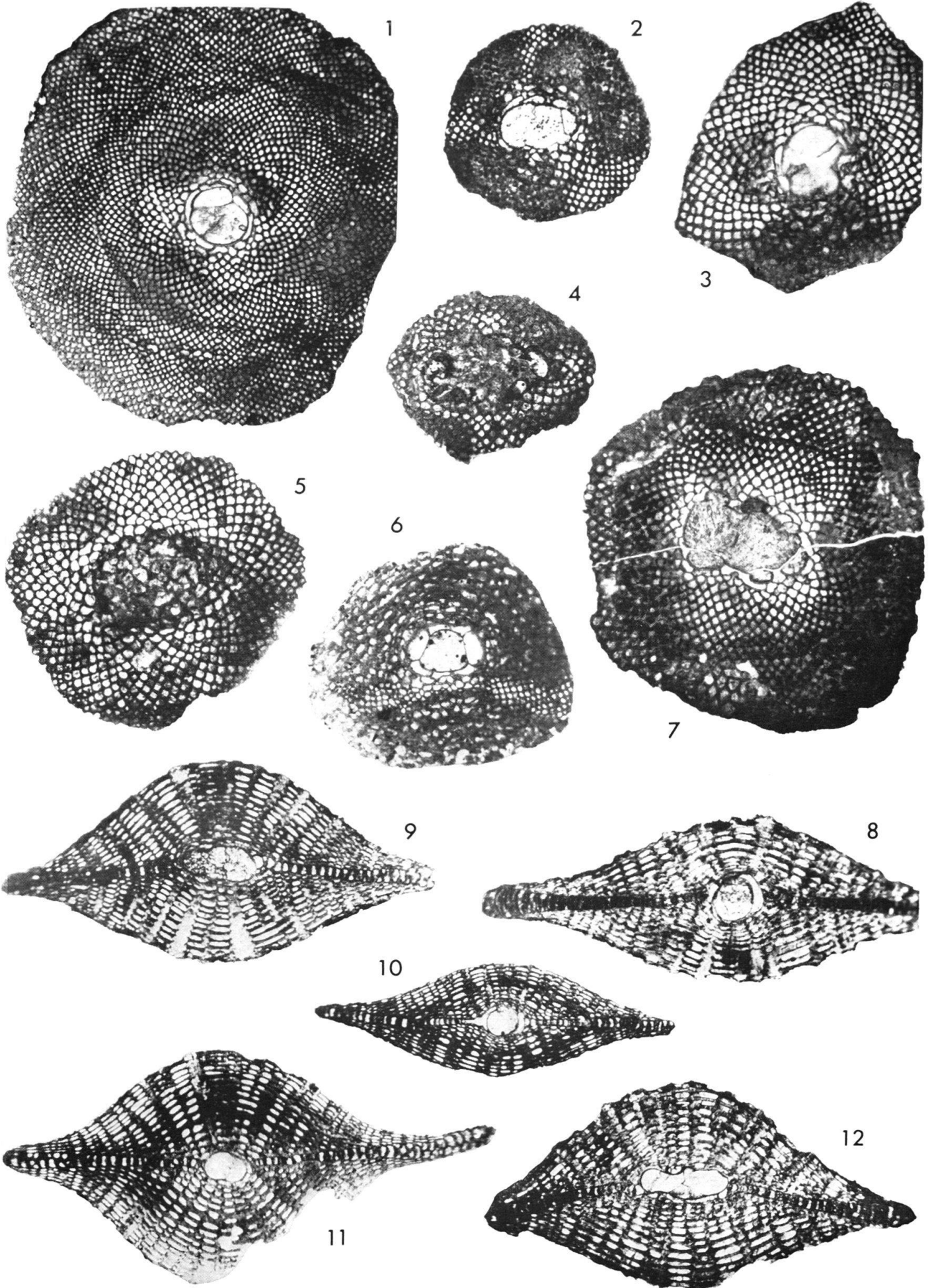
Fig. 1	<i>Lepidocyclina peruviana</i> CUSHMAN . . . . . Specimen in which the radial pattern is less pronounced. K. 1500. C 31083. × 34.	p. 573
Fig. 2	Id., juvenile specimen, K. 1500, C 31084. × 34.	
Fig. 3	Id., juvenile specimen, same as Pl. 25, Fig. 8. K. 1500, C 31080. × 34.	
Fig. 4	Id., K. 1500, C 31085. × 34.	
Fig. 5	<i>Lepidocyclina peruviana nana</i> n. subsp. . . . . Holotype. K. 3692. C 31182. × 34.	p. 574
Fig. 6	<i>Lepidocyclina pustulosa</i> (DOUVILLÉ) . . . . . Juvenile form (see Fig. 7; compare Fig. 10). K. 3741. C 31186. × 19.	p. 577
Fig. 7	Id., same specimen as Fig. 6; compare Fig. 11. K. 3741, C 31186. × 38.	
Fig. 8	<i>Lepidocyclina peruviana</i> CUSHMAN . . . . . B-form. K. 3692. C 31183. × 34.	p. 574
Fig. 9	<i>Lepidocyclina pustulosa</i> (DOUVILLÉ) s.s. . . . . J.S. 1950. C 31245. × 19.	p. 575
Fig. 10	<i>Lepidocyclina subglobosa</i> NUTTALL . . . . . Same specimen as Fig. 11; compare Fig. 6. K. 3741. C 31260. × 19.	p. 577
Fig. 11	Id., same specimen as Fig. 10; compare Fig. 7. K. 3741, C 31260. × 38.	
Fig. 12	<i>Lepidocyclina pustulosa compacta</i> n. subsp. . . . . Holotype. Trinidad, Point Bontour, San Fernando area, St. 63. C 31252. × 19.	p. 575
Fig. 13	<i>Lepidocyclina pustulosa</i> (DOUVILLÉ) s.s. . . . . Compare for vertical section Pl. 27, Fig. 8 and 12. Rz. 251. C 31228. × 19.	p. 575
Fig. 14	<i>Lepidocyclina pustulosa trinitatis</i> (DOUVILLÉ) . . . . . Compare for vertical section Pl. 27, Fig. 9–11. K. 2854. C 31113. × 19.	p. 575



## Plate 27

All figures × 19.

Fig. 1	<i>Lepidocyclina pustulosa trinitatis</i> (DOUVILLÉ) . . . . . With irregular nucleoconch. K. 1499. C 31075.	p. 575
Fig. 2	<i>Lepidocyclina pustulosa</i> (DOUVILLÉ), non-typical <i>tobleri</i> . . . . . K. 1316. C 31059.	p. 575
Fig. 3	<i>Lepidocyclina pustulosa</i> (DOUVILLÉ) s.s. . . . . With irregular nucleoconch and periembyronic chambers. K. 1500. C 31086.	p. 575
Fig. 4	<i>Lepidocyclina pustulosa tobleri</i> (DOUVILLÉ) . . . . . Specimen in which the cavity of the central chambers is secondarily filled up with irregular lateral tissue. K. 1499. C 31070.	p. 575
Fig. 5	Id., K. 1499, C 31071.	
Fig. 6	<i>Lepidocyclina pustulosa tobleri</i> (DOUVILLÉ) . . . . . Typical form. K. 1499. C 31069.	p. 575
Fig. 7	<i>Lepidocyclina pustulosa tobleri</i> (DOUVILLÉ) . . . . . Typically developed, but with double nucleoconch. K. 1499. C 31076.	p. 575
Fig. 8	<i>Lepidocyclina pustulosa</i> (DOUVILLÉ) s.s. . . . . Compare for horizontal section Pl. 26, Fig. 13). Rz. 251. C 31229.	p. 575
Fig. 9	<i>Lepidocyclina pustulosa trinitatis</i> (DOUVILLÉ) . . . . . Compare for horizontal section Pl. 26, Fig. 14. K. 2854. C 31110.	p. 575
Fig. 10	Id., K. 2854 (horizontal section: Pl. 26, Fig. 14). C 31111.	
Fig. 11	Id., section giving the false impression of "duplication" of the equatorial layer, cut obliquely through the high chambers of the flange (horizontal section: Pl. 26, Fig. 14). K. 2854. C 31112. . . . .	p. 574
Fig. 12	<i>Lepidocyclina pustulosa</i> (DOUVILLÉ) s.s. . . . . With very large flat nucleoconch (horizontal section: Pl. 26, Fig. 13). Rz. 251. C 31230.	p. 575

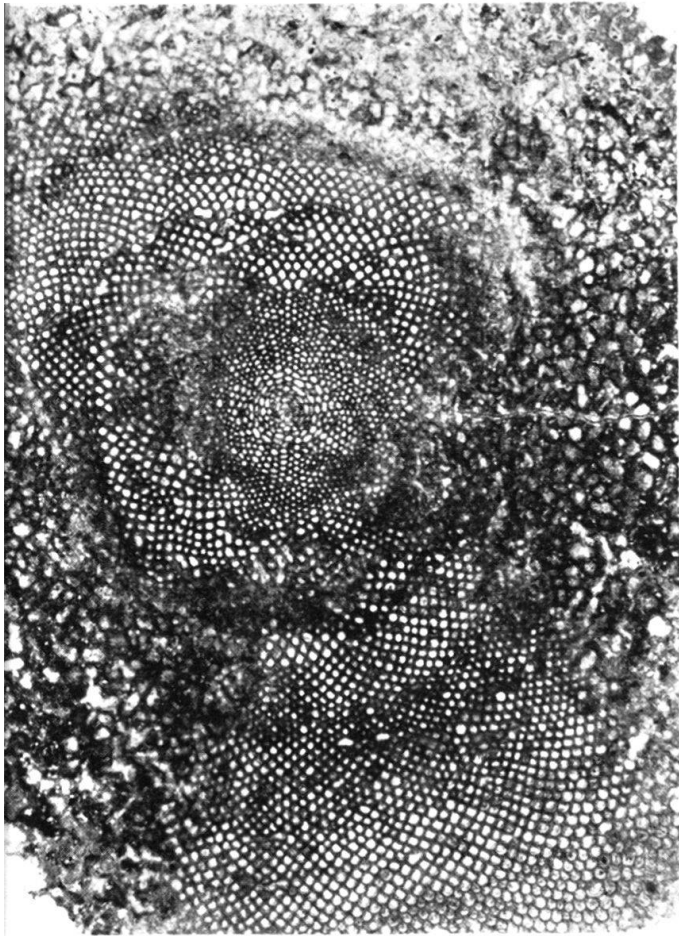


## Plate 28

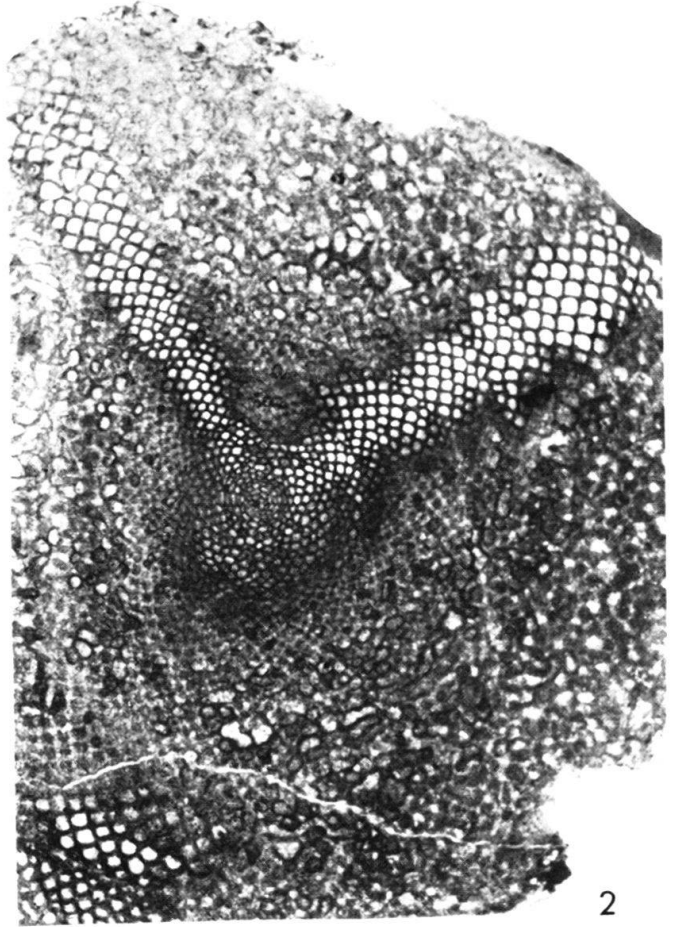
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- Fig. 1 *Lepidocyclina pustulosa* (DOUVILLÉ) . . . . . p. 575  
Large B-form; initial pattern at first on a spiral plan and loosely concentric, followed by a zone of radial rows of chambers, then suddenly assuming the adult concentric to fan-shaped pattern. K.903. C 31055.
- Fig. 2 *Lepidocyclina spatiosa* n.sp. . . . . p. 576  
Paratype. B-form; initial part with a small zone of radial rows of chambers, after which follows the adult fan-shaped pattern, periodically interrupted by circular "growth rings" (compare Pl.29, Fig.2). K.1316. C 31057.
- Fig. 3 *Lepidocyclina pustulosa* (DOUVILLÉ) . . . . . p. 575  
Large B-form; initial part lacking a zone of radial rows, assuming the adult pattern at a very early stage. K.903. C 31047.
- Fig. 4 *Lepidocyclina pustulosa* (DOUVILLÉ) . . . . . p. 575  
Large B-form; zone of radial rows starting immediately from the embryonic spiral, then gradually passing into the adult concentric pattern. K.903. C 31048.



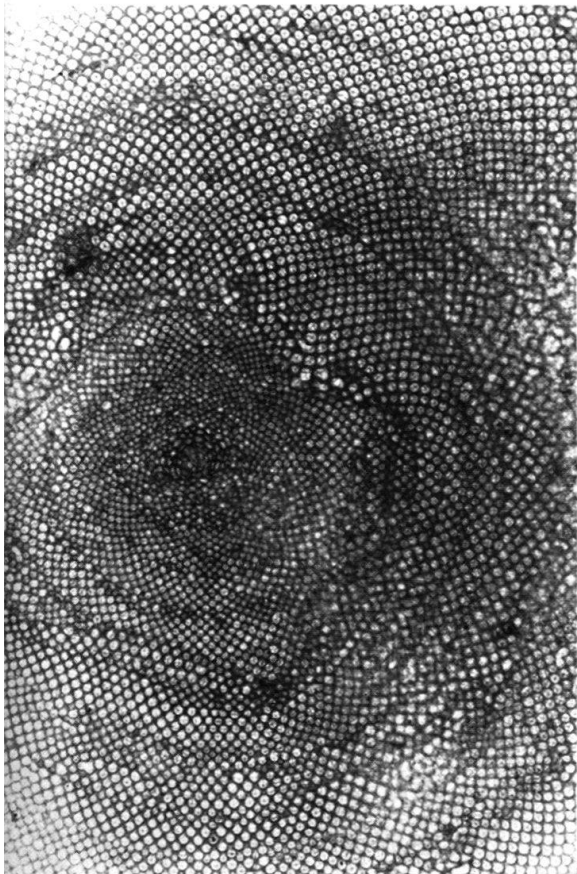


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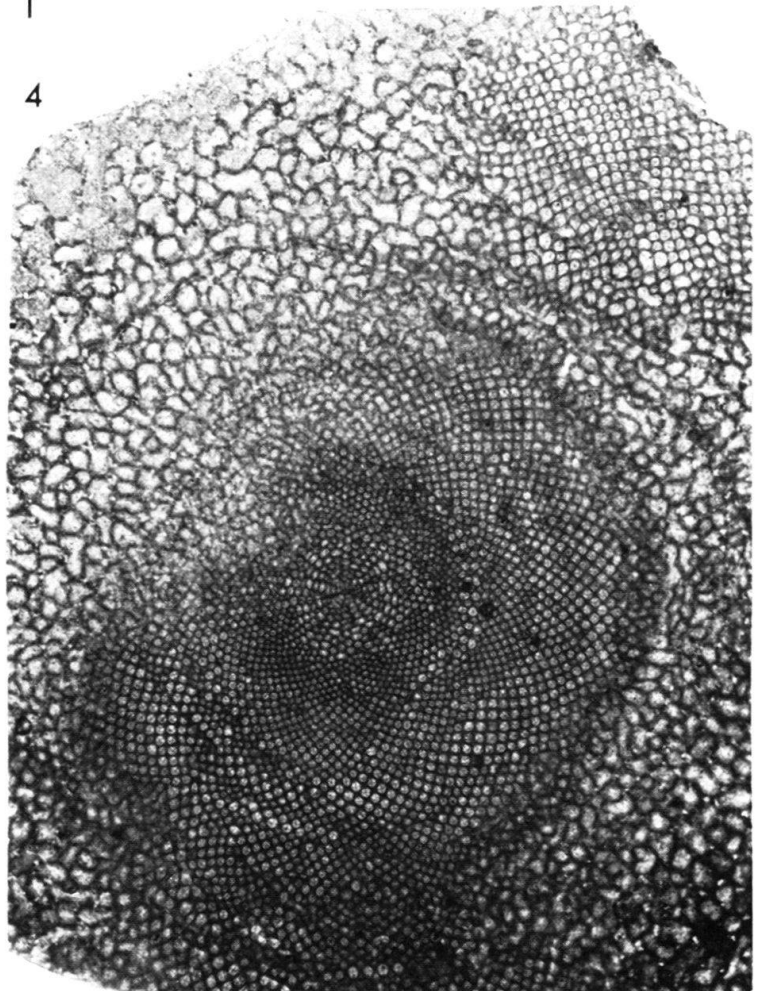


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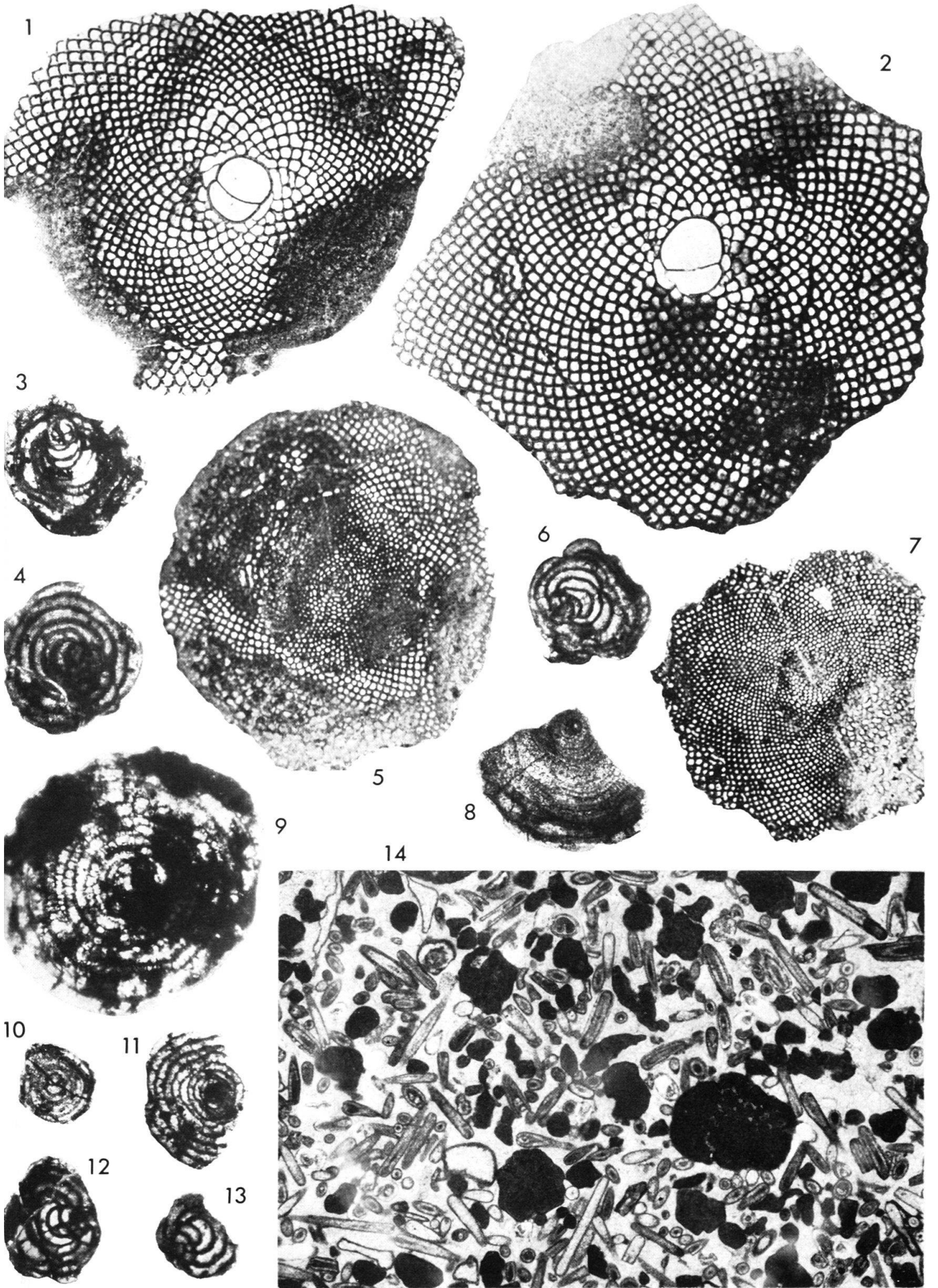


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## Plate 29

Fig. 1	<i>Lepidocyclina spatiosa</i> n. sp. . . . . Paratype. A-form. K. 2854, C 31115. × 19.	p. 576
Fig. 2	<i>Lepidocyclina spatiosa</i> n. sp. . . . . Holotype. A-form, showing conspicuous "growth rings" (compare Pl. 28, Fig. 2). K. 1316. C 31058. × 19.	p. 576
Fig. 3	<i>Cycloloculina jarvisi</i> CUSHMAN. . . . . B-form with thickened embryonic wall, median section. K. 3692. C 31050. × 38.	p. 579
Fig. 4	Id., B-form, median section. K. 3692. C 31184. × 38.	
Fig. 5	<i>Lepidocyclina pustulosa</i> (DOUVILLÉ) . . . . . Small B-form, with zone of radial rows of equatorial chambers (compare Pl. 28, Fig. 1-3). K. 903. C 31056. × 19.	p. 575
Fig. 6	<i>Cycloloculina jarvisi</i> CUSHMAN. . . . . B-form, median section. K. 3692. C 31185. × 38.	p. 579
Fig. 7	<i>Lepidocyclina pustulosa trinitatis</i> (DOUVILLÉ) . . . . . Small B-form. K. 2854. C 31114. × 19.	p. 575
Fig. 8	<i>Cycloloculina jarvisi</i> CUSHMAN. . . . . A-form, superficial horizontal section showing porous texture of the dorsal surface. K. 3692. C 31181. × 38.	p. 579
Fig. 9	Id., exceptionally large specimen; photograph (in transmitted light) of entire intact test, from the ventral side, showing the superficial chamberlets. K. 3691. C 31176. × 38.	
Fig. 10	Id., A-form, near-median section, showing also something of the dorsal pores. K. 3692. C 31051. × 38.	
Fig. 11	Id., A-form, median section, K. 3692. C 31052. × 38.	
Fig. 12	Id., B-form, median section. K. 3692. C 31053. × 38.	
Fig. 13	Id., B-form, median section. K. 3692. C 31054. × 38.	
Fig. 14	General section of a Dasyclad algae limestone (see Part 1, p. 379), showing longitudinal, oblique and transverse sections through the scattered limbs of the Dasyclads and dark fragments of other algae (Rhodophyta?) in a matrix of clear crystallized calcite (see also Pl. 30, Fig. 1, 2). Block at J.S. 1954. C 31247. × 14. . . . .	p. 582

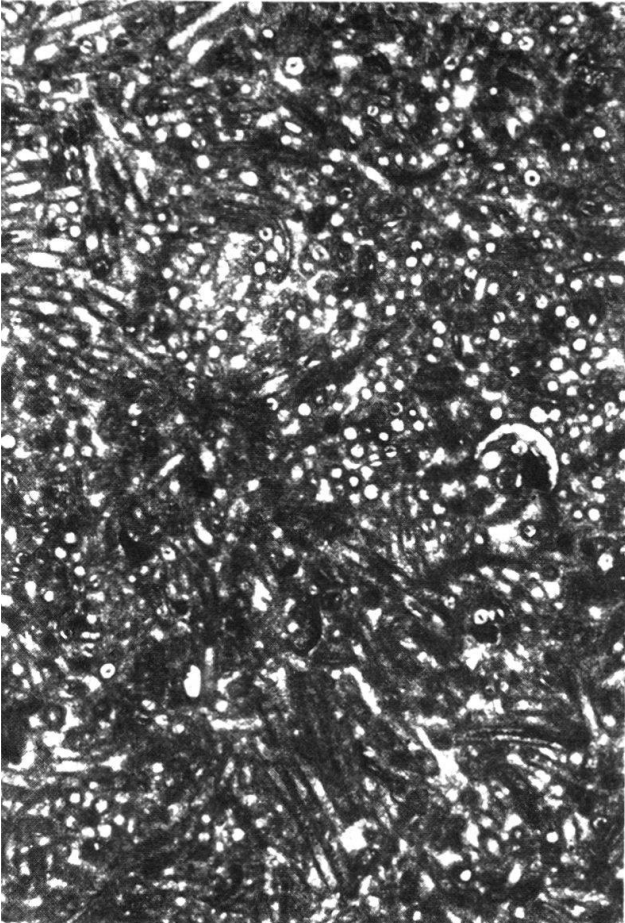


### Plate 30

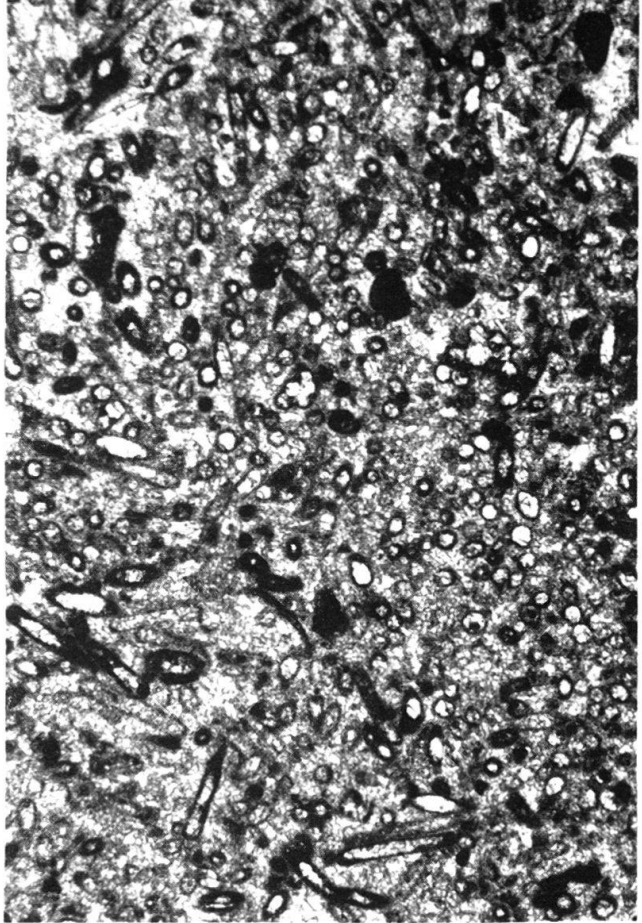
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Fig. 1	Dasyclad algae limestone (see Pl. 29, Fig. 14). Block at K. 10711. . . . .	p. 580
	C 31263.	
Fig. 2	Dasyclad algae limestone (see Pl. 29, Fig. 14). Block at K. 10724. . . . .	p. 580
	C 31264.	
Fig. 3	Limestone with unidentified algae (?). Different block from locality K. 10711. C 31261. . . . .	p. 582
Fig. 4	Limestone with unidentified algae (?). Same block as Fig. 3, K. 10711. C 31262. . . . .	p. 582

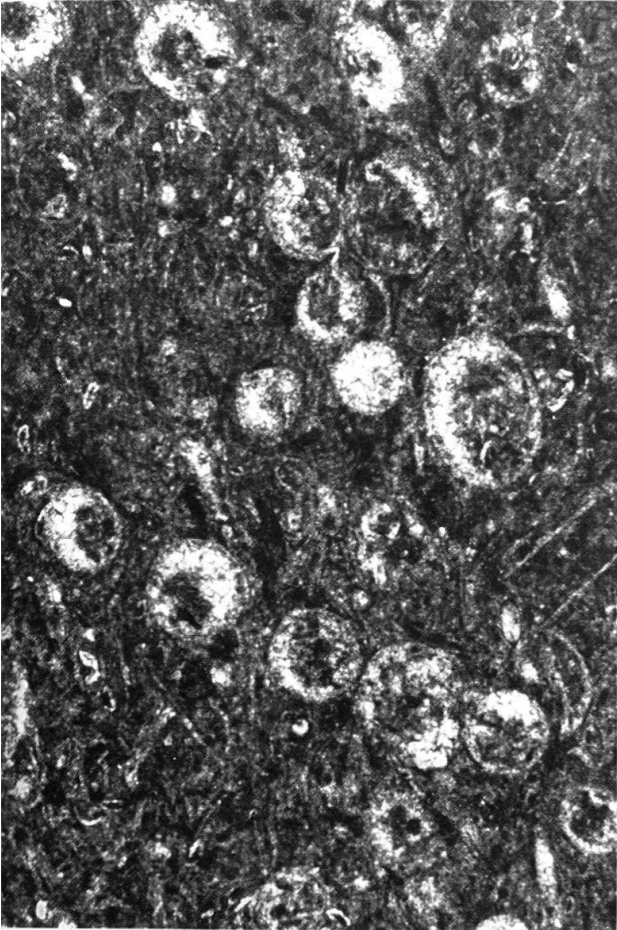




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