The British Lithostrotiontidae

John R. Nudds

THE BRITISH LITHOSTROTIONTIDAE

by John R. Nudds

Graduate Society

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All figures are X4 unless otherwise stated.

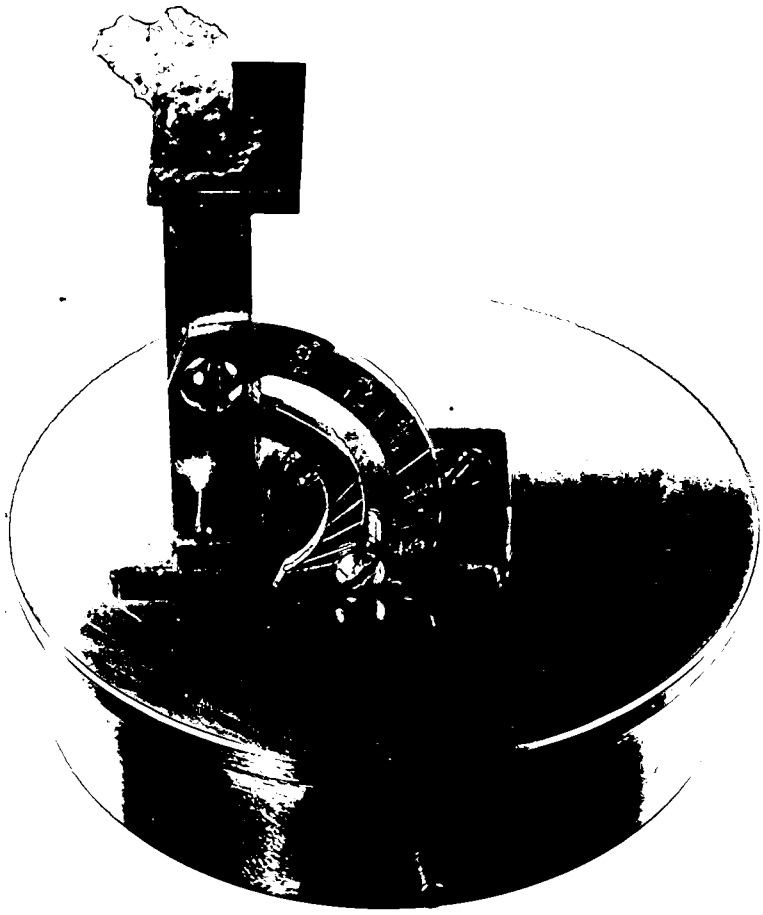
EXPLANATION OF PLATES

PLATE 2

The graduated tilting mounting block designed for attachment to the Croft grinder.

Fig. 1. A laterally budding corallite attached to the mounting block which is set in a vertical position for grinding the parent corallite.

Fig. 2. The same laterally budding corallite with the mounting stage set at an angle for grinding the daughter corallite.



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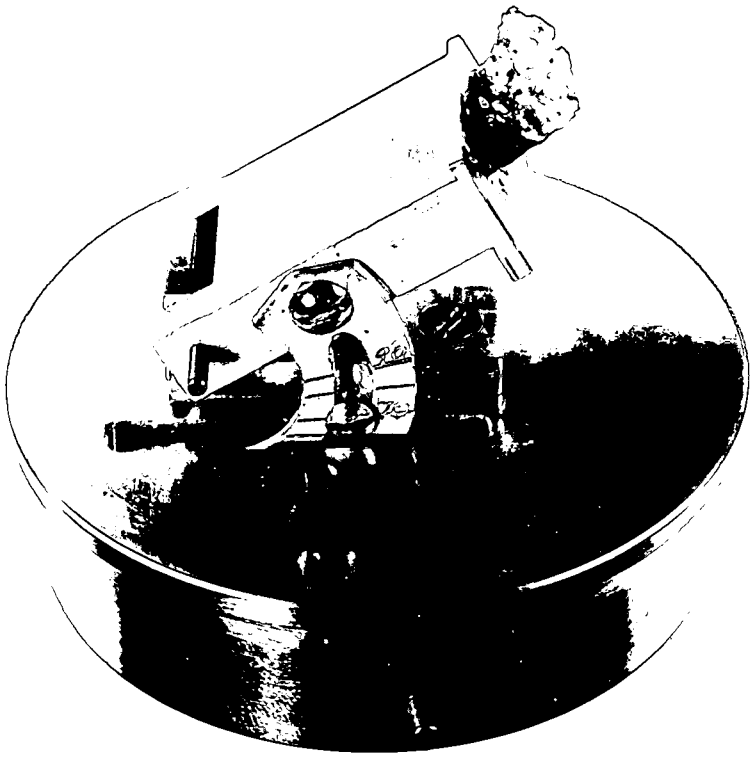

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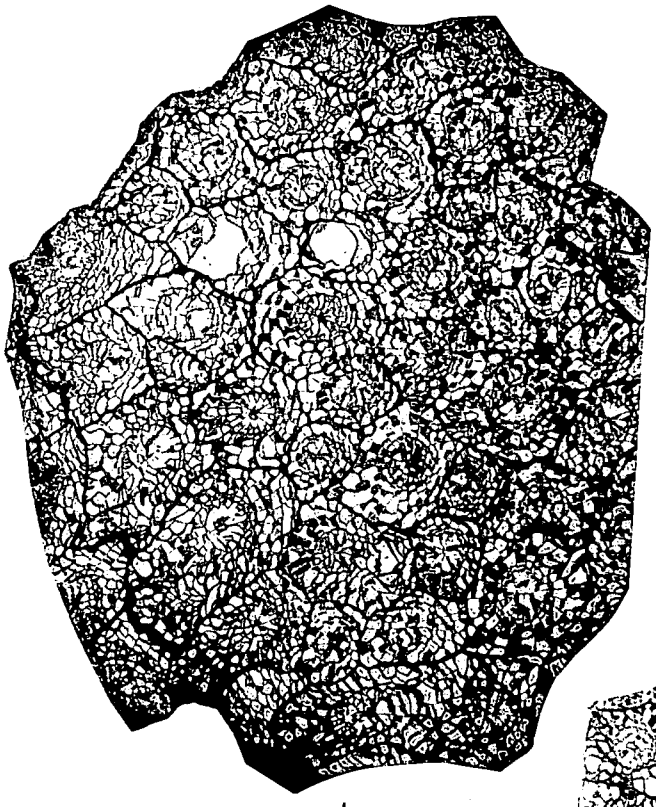
PLATE 3

Fig. 1. L.maccoyanum Milne-Edwards and Haime. 'Mountain Limestone', ?Oswestry, No. MIL Z87 bis a, Milne-Edwards and Haime Collection, Museum National D'Histoire Naturelle, Paris. Section cut from the specimen fig'd by Edwards and Haime, 1852, Tab.XL11, fig.2a. Here chosen as lectotype.

Fig. 2. L.maccoyanum Milne-Edwards and Haime. 'D Zone, Oswestry, Shropshire'. No. PF 688, I.G.S. Collection, Leeds. Syntype.

Fig. 3. L.maccoyanum Milne-Edwards and Haime. 'D Zone, Oswestry, Shropshire'. No. PF 689, I.G.S. Collection, Leeds. Syntype.



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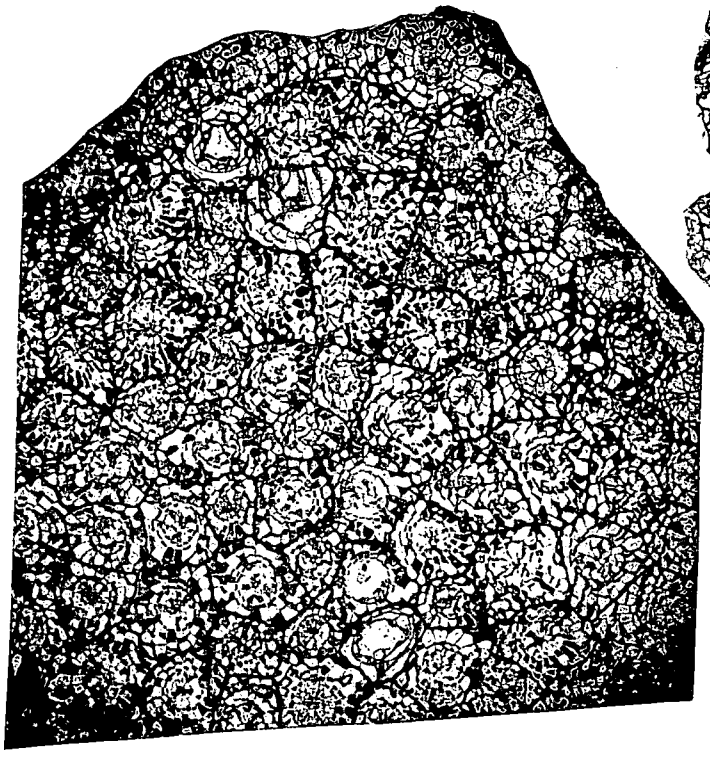

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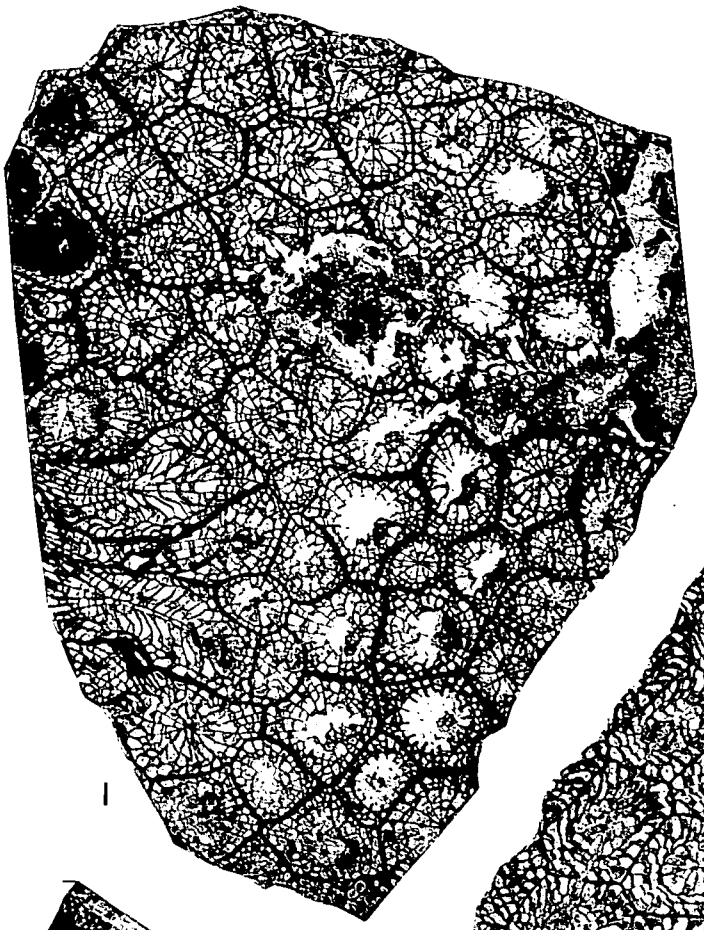
PLATE 4

Fig. 1. *L. maccoyanum* Milne-Edwards and Haime. Great Scar Limestone, Hartley Quarry, Kirkby Stephen, Cumbria. No. JN 20gv11.

Fig. 2. *L. maccoyanum* Milne-Edwards and Haime. Bankhouses Limestone, Bonnyrigg, Houseteads, Northumberland. No. JN 130ai.

Fig. 3. *L. maccoyanum* Milne-Edwards and Haime. Great Scar Limestone, Hartley Quarry, Kirkby Stephen, Cumbria. No. JN 20giv.

Fig. 4. *L. maccoyanum* Milne-Edwards and Haime. Bankhouses Limestone, Tipalt Burn, Northumberland. No. JN 117ai.



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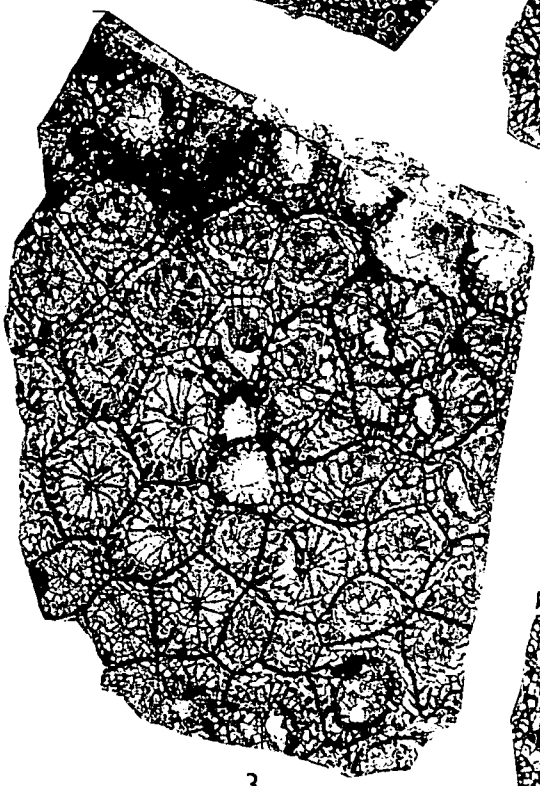

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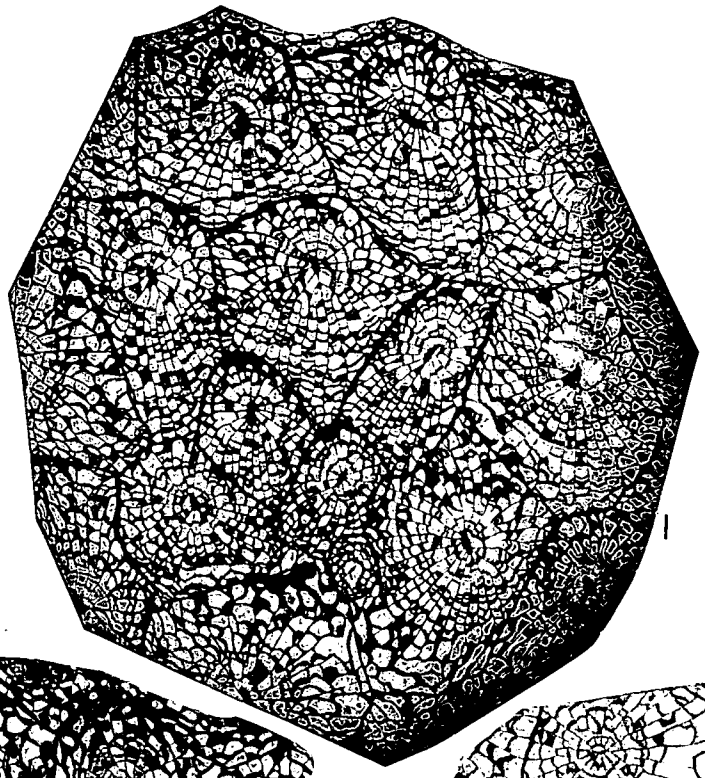
PLATE 5

Fig. 1. L.decipiens(McCoy). 'Carboniferous Limestone, Derbyshire'. No. SMA 2077c, Sedgwick Museum, Cambridge. Lectotype.

Fig. 2. L.decipiens(McCoy). Middle Limestone, Mill Gill, Askrigg, Wensleydale. No. JN 140cii.

Fig. 3. L.decipiens(McCoy). Middle Limestone, Mill Gill, Askrigg, Wensleydale. No. JN 140kiii.

Fig. 4. L.decipiens(McCoy). Lectotype of Nematophyllum clissioides McCoy. 'Carboniferous Limestone, Derbyshire'. No. SMA 2071h, Sedgwick Museum, Cambridge. Fig'd Hill, 1940, p.178, pl.x, fig.2. Cut from specimen fig'd McCoy, pl.38, fig.2b.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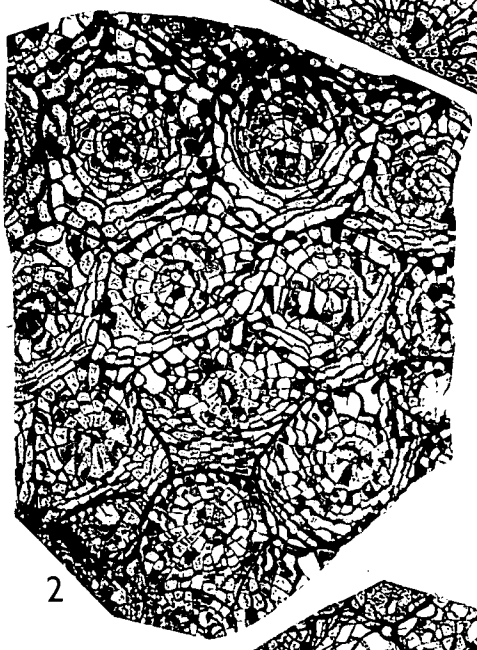
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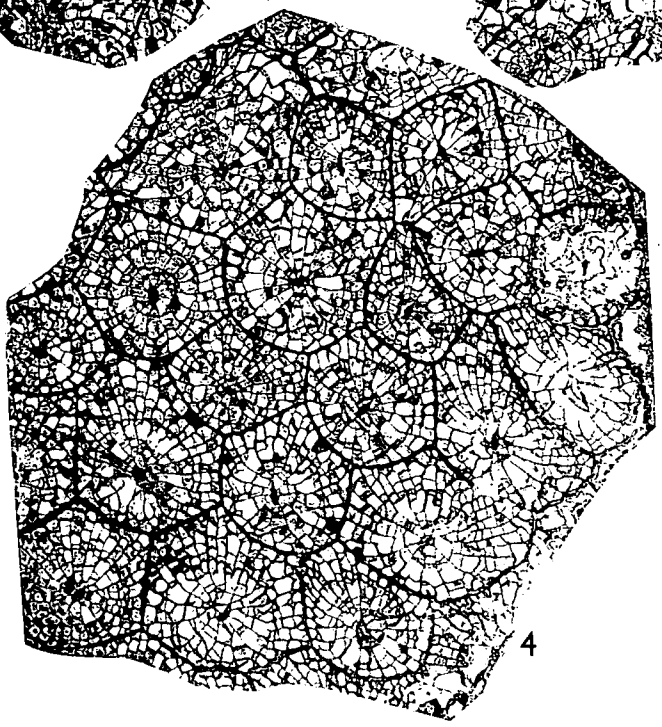
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PLATE 6

Fig. 1. L.decipiens(McCoy). Potts Beck Limestone, Potts Beck, Orton, Cumbria. No. JN 185gi.

Fig. 2. L.decipiens(McCoy). Holotype of L.derbiense Milne-Edwards and Haime (=Stylastraea irregularis McCoy, non Defrance). 'Carboniferous Limestone, Derbyshire'. No. SMA 2398b, Sedgwick Museum, Cambridge.

Fig. 3. L.decipiens(McCoy). Great Scar Limestone, Hartley Quarry, Kirkby Stephen, Cumbria. No. JN 19 ii.

Fig. 4. L.decipiens(McCoy). Great Scar Limestone, Hartley Quarry, Kirkby Stephen, Cumbria. No. JN 19iI.

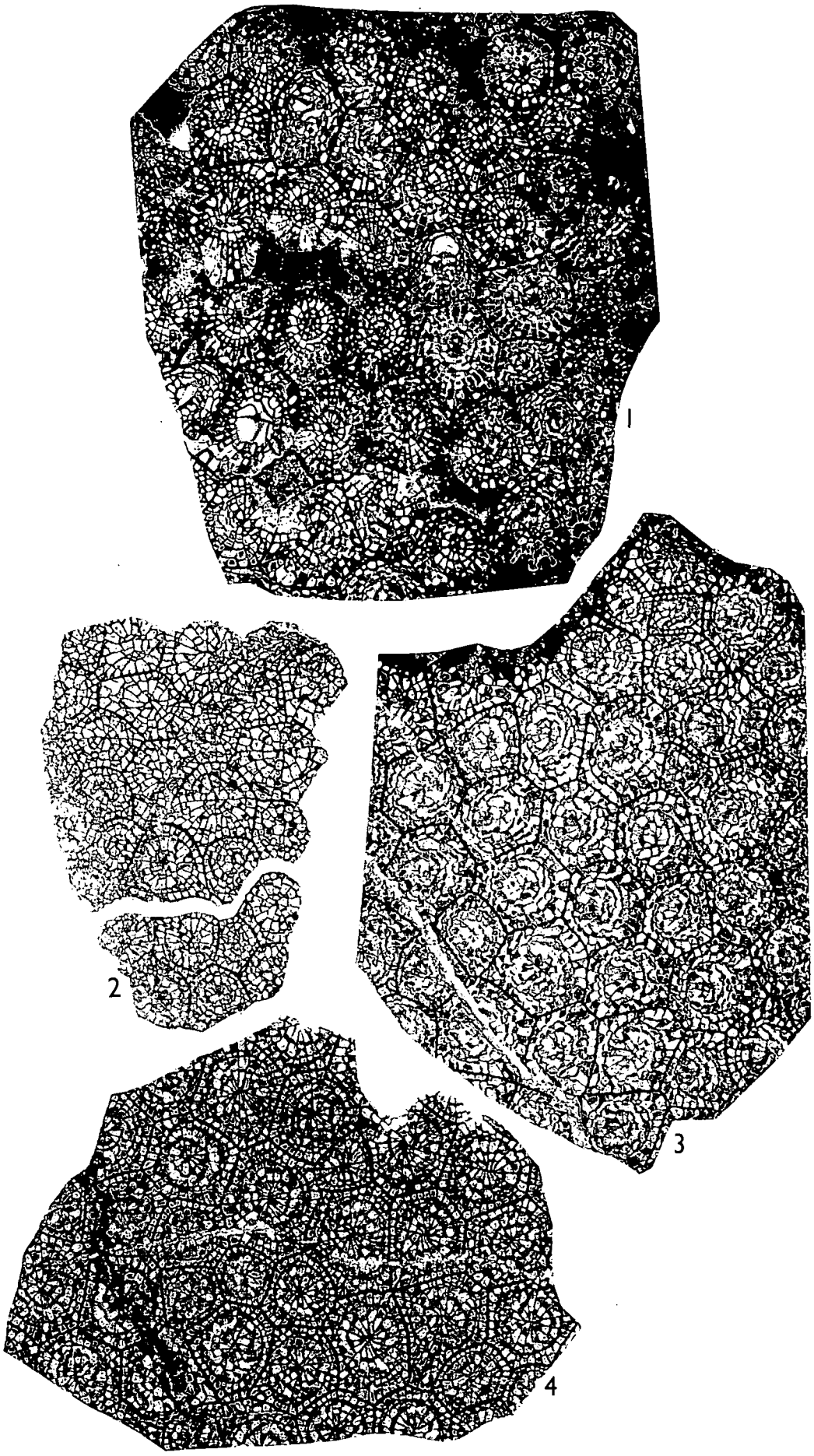
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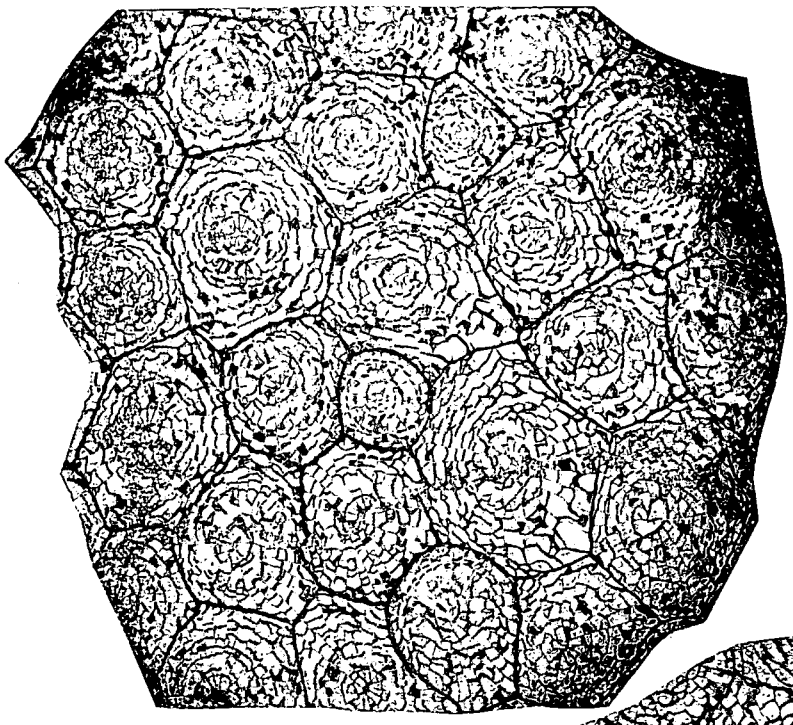
PLATE 7

Fig. 1. L.decipiens(McCoy). Holotype of L.portlocki var.vesiculifer Hudson. 'Yoredale Series, O Zone, Arn Gill, Askrigg, Yorkshire'. No. PF 697, I.G.S. Collection, Leeds. Cit'd Hudson, 1929, p.454.

Fig. 2. L.decipiens(McCoy). Great Scar Limestone, Hartley Quarry, Kirkby Stephen, Cumbria. No. JN 20fiv.

Fig. 3. L.decipiens(McCoy). Great Scar Limestone, Hartley Quarry, Kirkby Stephen, Cumbria. No. JN 19ziv.



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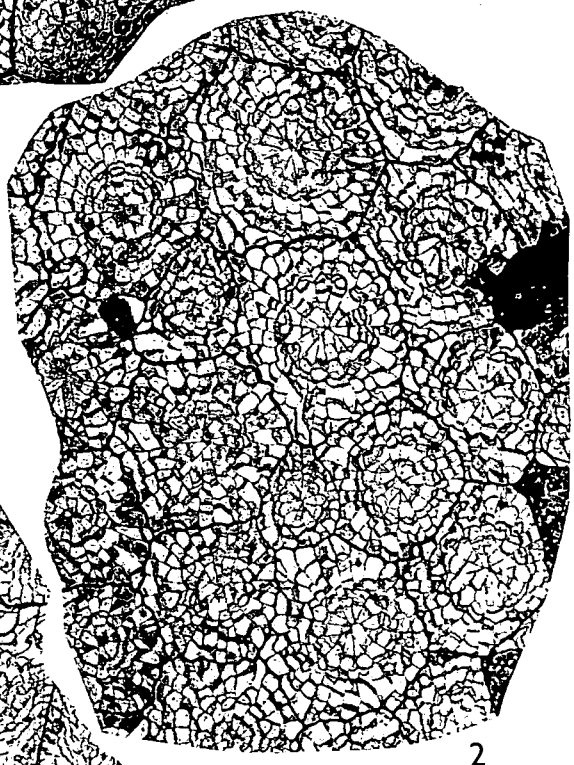

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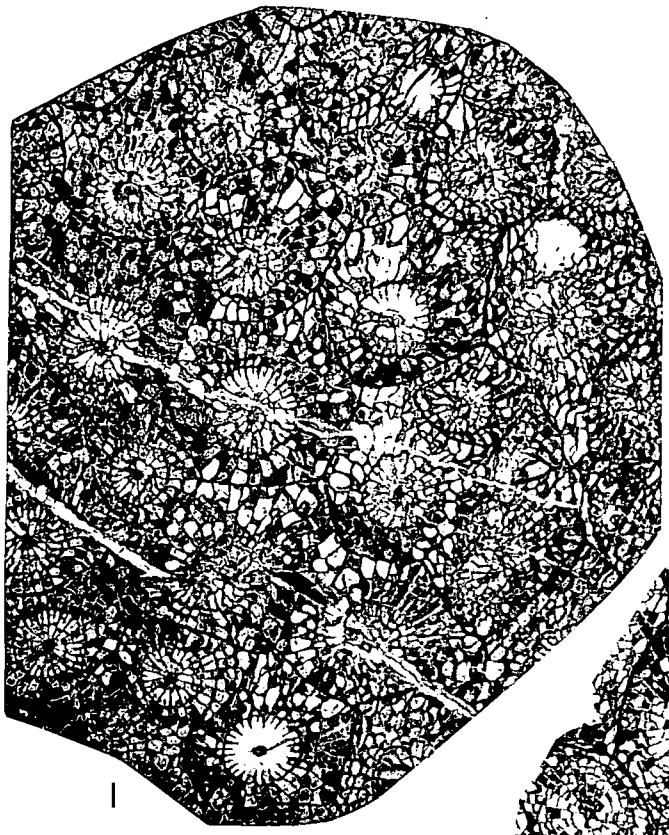
PLATE 8

Fig. 1. *L.decipiens*(McCoy). Harlow Hill Limestone, Harlow Hill, Northumberland. No. JN 17diii.

Fig. 2. *L.decipiens*(McCoy). Great Scar Limestone, Askrigg, Wensleydale. No. JN 156aiv.

Fig. 3. L.decipiens(McCoy). Harlow Hill Limestone, Harlow Hill, Northumberland. No. JN 17dii.



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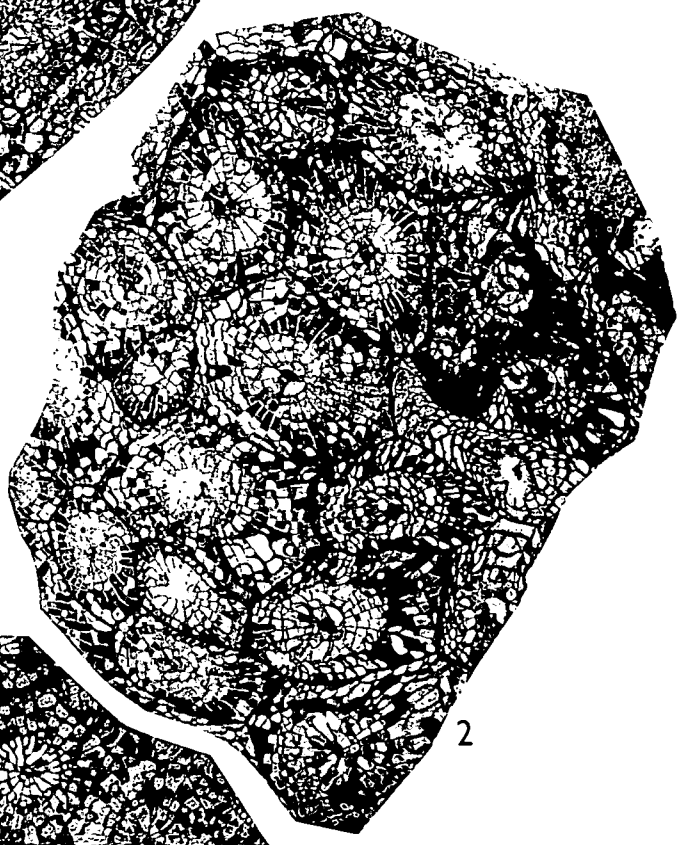

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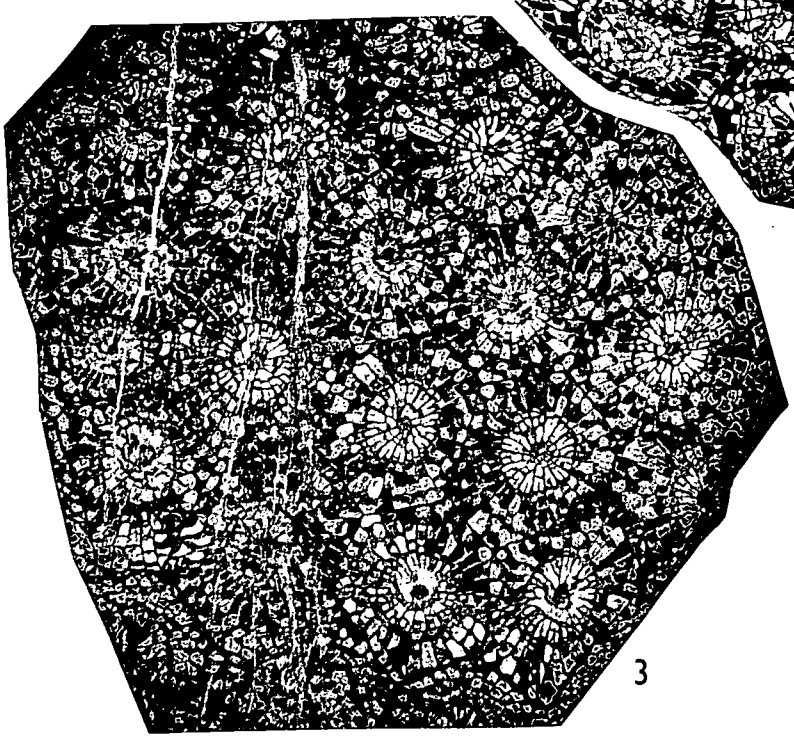

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PLATE 9

Fig. 1. L. decipiens (McCoy). Moulds Meaburn Limestone, Moulds Meaburn, Cumbria. No. JN 114ai.

Fig. 2. L. decipiens (McCoy). Coral band at top of Single Post Limestone, Tipalt Burn, Northumberland. No. JN 108ai.

Fig. 3. L. decipiens (McCoy). Tyne Bottom Limestone, Lime Kiln Sike, S. side of Burnhope Reservoir, Teesdale. No. JN 89aii.

Fig. 4. L. decipiens (McCoy). Gayle Limestone, Mill Gill, Askrigg, Wensleydale. No. JN 132hi.


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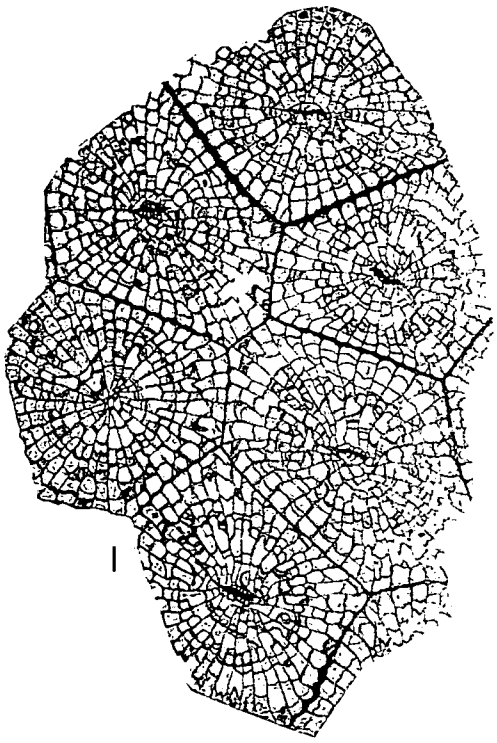
PLATE 10

Fig. 1. L.vorticale(Parkinson). Holotype of L.flemingi(McCoy). 'Carboniferous Limestone, Derbyshire'. No. SMA 2051j, Sedgwick Museum, Cambridge. Cut from specimen fig'd McCoy, 1851, p.100, pl.3A, figs.3,3a and 3b.
With the lack of type material for L.vorticale, this species (and therefore the genus Lithostrotion, of which L.vorticale is the genotype) can be interpreted on this specimen.

Fig. 2. L.vorticale(Parkinson). Great Scar Limestone(S2), Crummockdale, Austwick, Yorkshire. Nos.JN 147ai & JN 147aii.

Fig. 3. L.vorticale(Parkinson). S2 limestone, Ore Hill Quarry, Kirkby Stephen, Cumbria. No. JN 32ai.

Fig. 4. L.vorticale(Parkinson). Great Scar Limestone, Aysgarth lower falls, Aysgarth, Wensleydale. No. JN 1581i.



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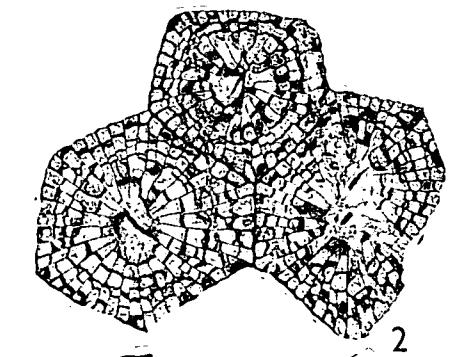

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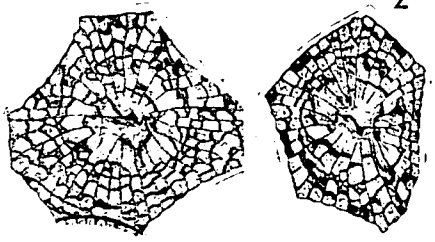

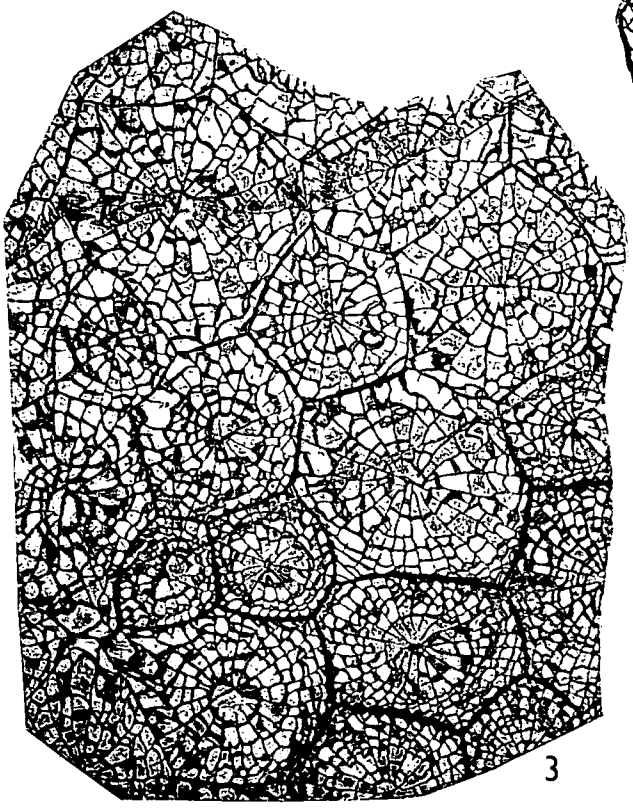

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PLATE 11

Fig. 1. L.vorticale(Parkinson). Timpony Limestone, Dry Gill House, Stump Cross, Pately Bridge, Yorkshire. No. JN 177bi.

Fig. 2. L.vorticale(Parkinson). Type of L.portlocki(Bronn) (nom. nov. for Astraea irregularis Portlock, non Defrance). 'Tyrone'. No. PF 685, I.G.S. Collection, Leeds.

Fig. 3. L.vorticale(Parkinson). Potts Beck Limestone, Ash Fell Edge, Ravenstonedale, Kirkby Stephen, Cumbria. No. JN 157bii.

Fig. 4. L.vorticale(Parkinson). Great Scar Limestone(S2), Horton-in-Ribblesdale. Nos. JN 149aiii & JN 149aiv.

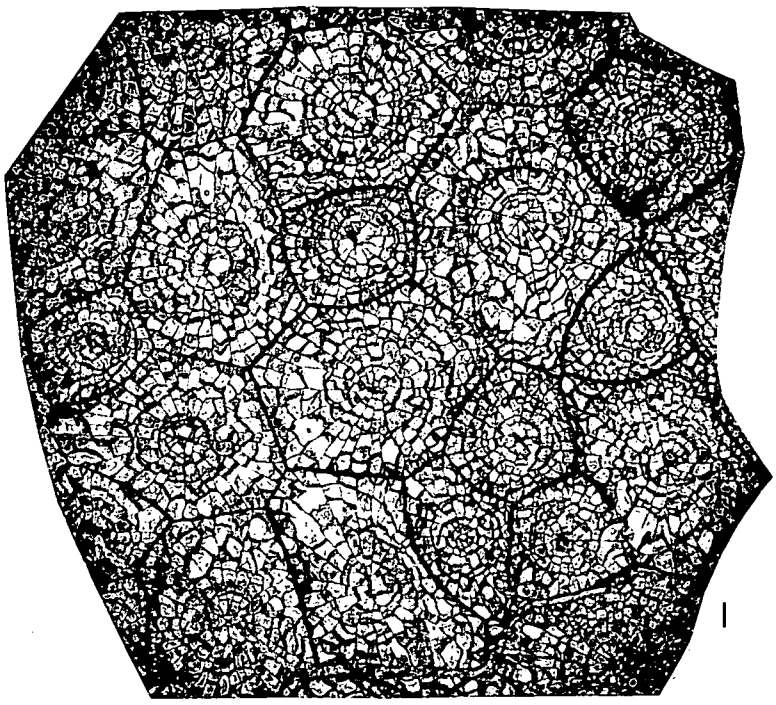
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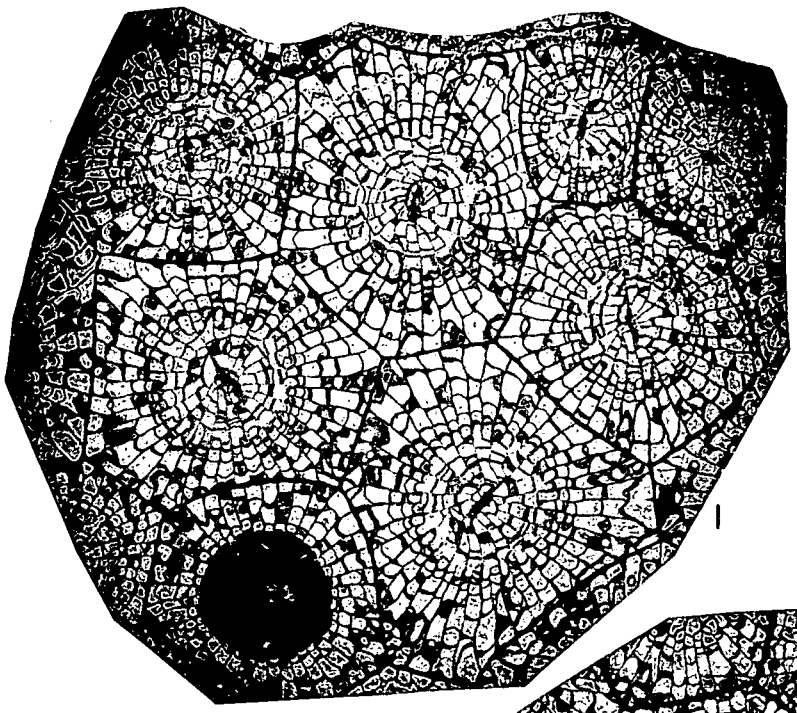
PLATE 12

Fig. 1. L.vorticale(Parkinson). Timpony Limestone, Dry Gill House, Stump Cross, Pately Bridge, Yorkshire. No. JN 177ai.

Fig. 2. L.vorticale(Parkinson). Timpony Limestone, Dry Gill House, Stump Cross, Pately Bridge, Yorkshire. No. JN 177di.

Fig. 3. L.vorticale(Parkinson). Holotype of L.minus(McCoy). 'Carboniferous Limestone, ?S2, Kendal, Westmorland'. No. SMA 2401c, Sedgwick Museum, Cambridge. Fig'd Hudson, 1930, p.57, pl.1, fig.3.



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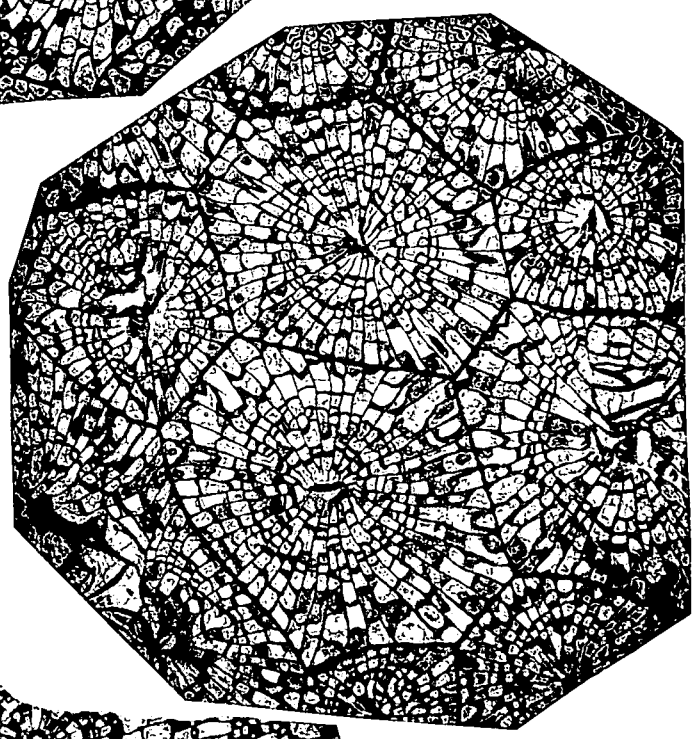

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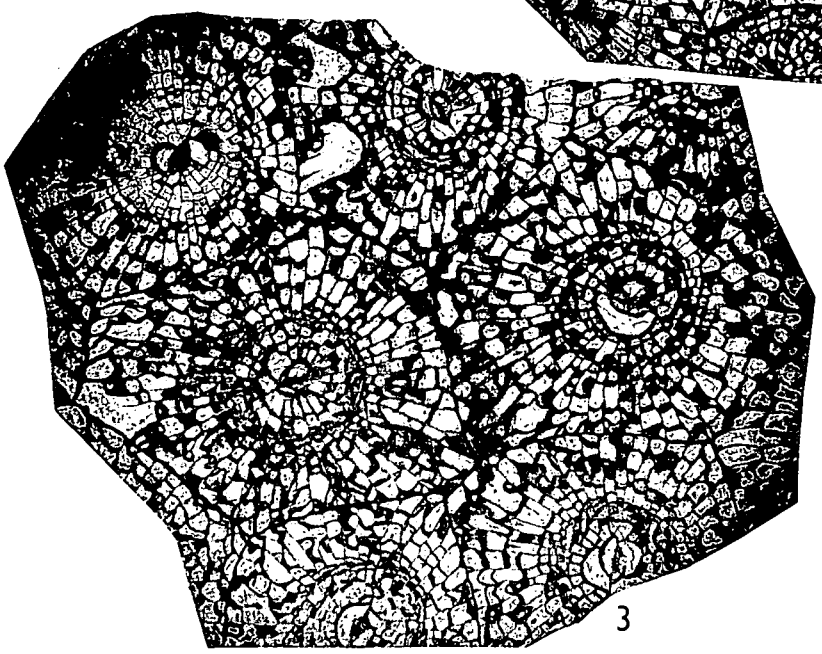

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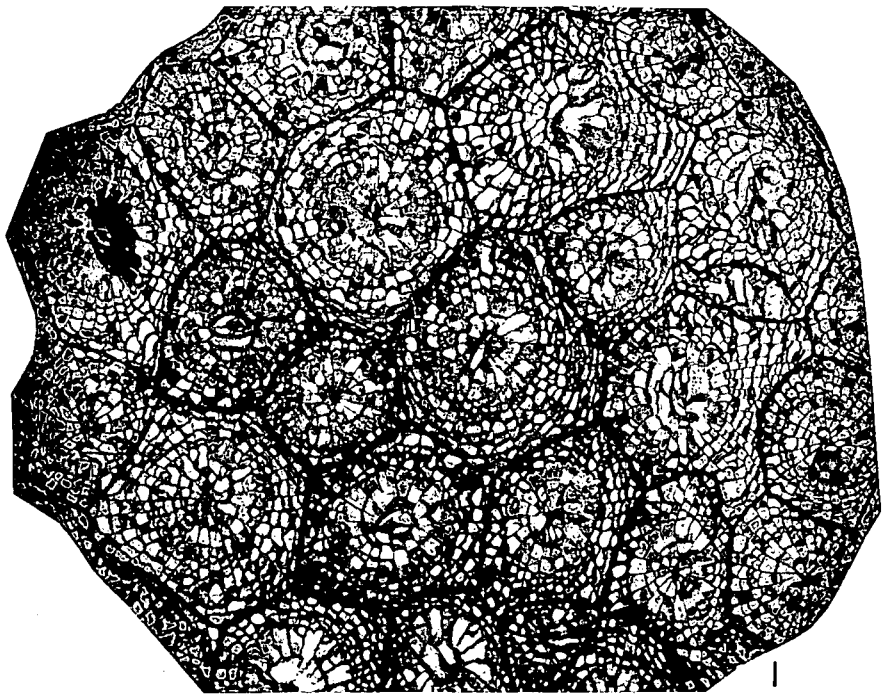
PLATE 13

Fig. 1. L.vorticale(Parkinson). Great Scar Limestone, Aysgarth lower falls, Aysgarth, Wensleydale. No. JN 158ji.

Fig. 2. L.vorticale(Parkinson). S2 limestone, Brampton, Cumbria. No. JN 155ai.

Fig. 3. L.vorticale(Parkinson). Bankhouses Limestone, Tipalt Burn, Northumberland. No. JN 129aiv.



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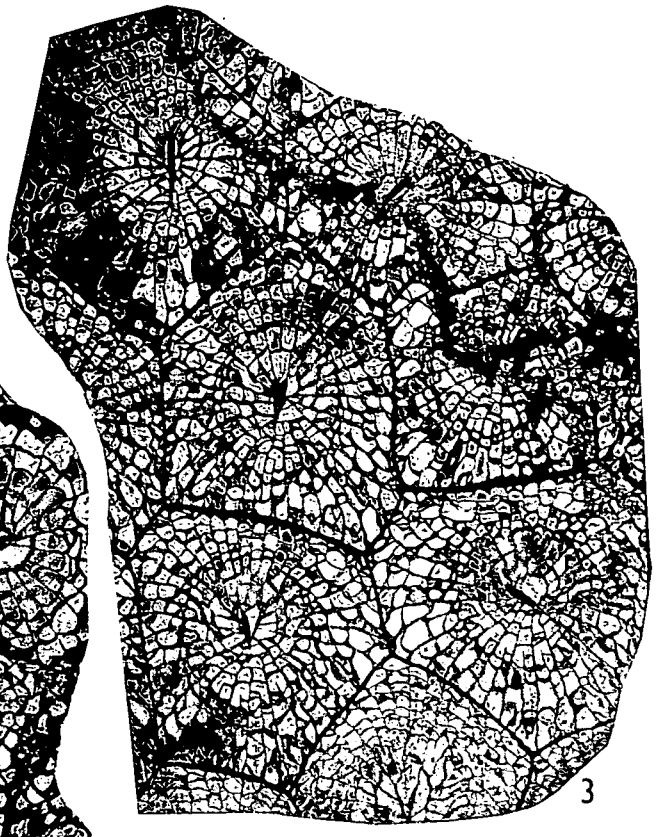

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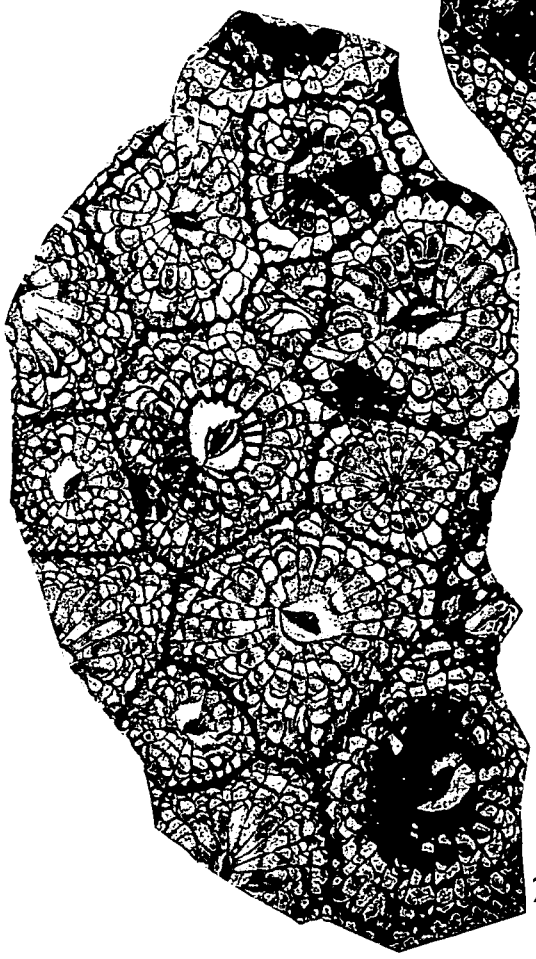

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PLATE 14

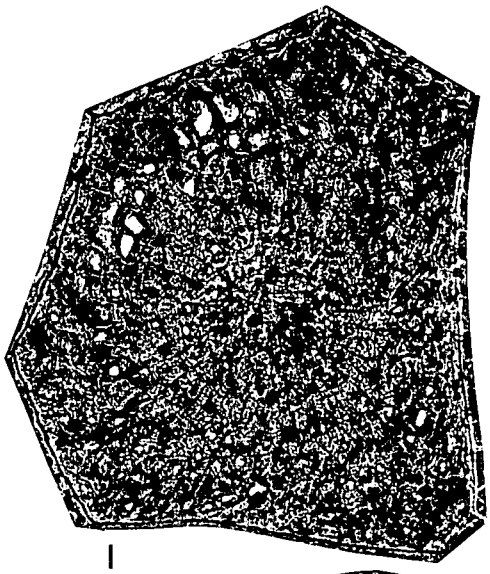
Fig. 1. L.aranea(McCoy). Carboniferous Limestone, Ireland. No. 50-1926, National Museum of Ireland, Dublin. Holotype.

Fig. 2. L.aranea(McCoy). Carboniferous Limestone, Ireland. No. 51-1926, National Museum of Ireland, Dublin. Holotype.

Fig. 3. L.aranea(McCoy). Holotype of L.arachnoideum(McCoy). 'Carboniferous Limestone, Derbyshire'. No. SMA 2400c, Sedgwick Museum, Cambridge. Fig'd Hudson, 1930, p.97, pl.1, fig.5a.

Fig. 4. L.aranea(McCoy). Holotype of L.arachnoideum var.ischnon Hudson. Great Scar Limestone, Scaleber, Yorkshire. No. PF 691, I.G.S. Collection, Leeds. Fig'd Garwood and Goodyear, 1924, pl.xviii, fig.4b. Cit'd Hudson, 1930, p.97.

Fig. 5. L.aranea(McCoy). Holotype of L.arachnoideum var.ischnon Hudson. Great Scar Limestone, Scaleber, Yorkshire. No. PF 692, I.G.S. Collection, Leeds. Fig'd Garwood and Goodyear, 1924, pl.xviii, fig.4a. Cit'd Hudson, 1930, p.97



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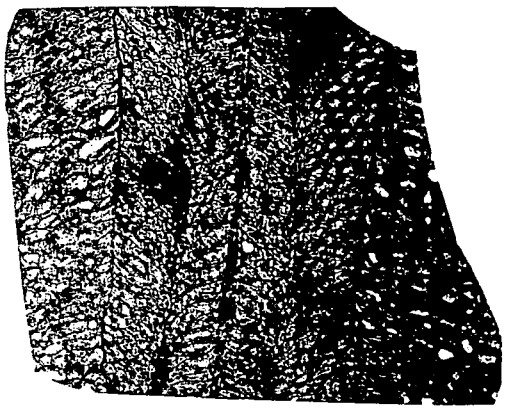

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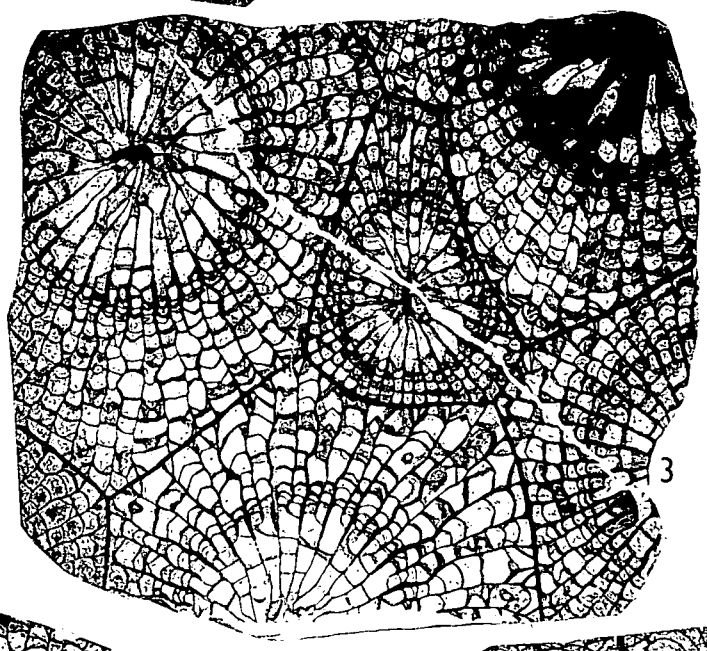

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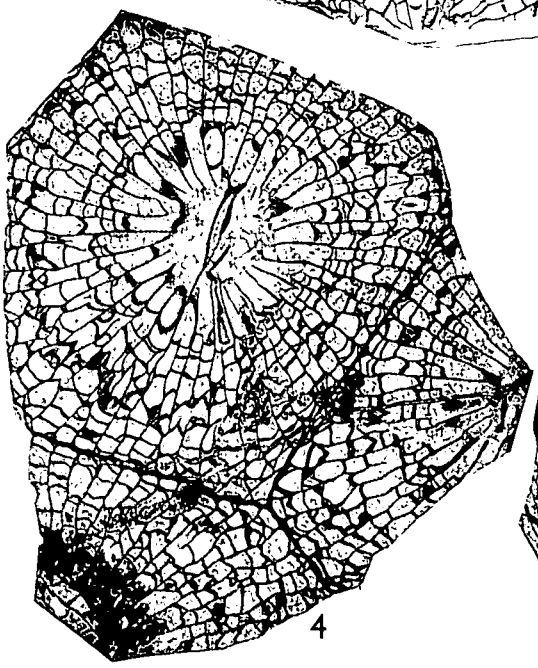

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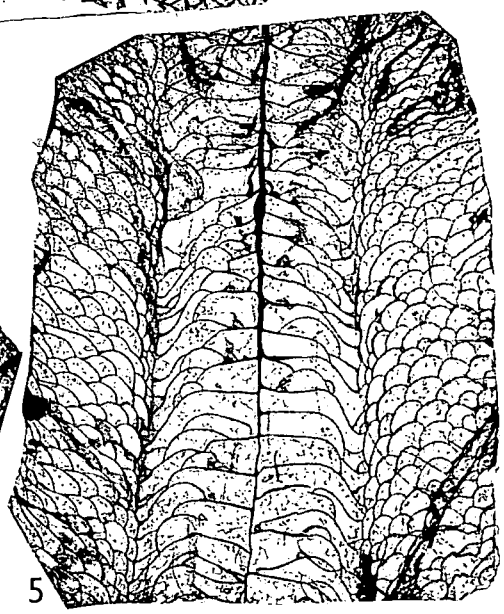

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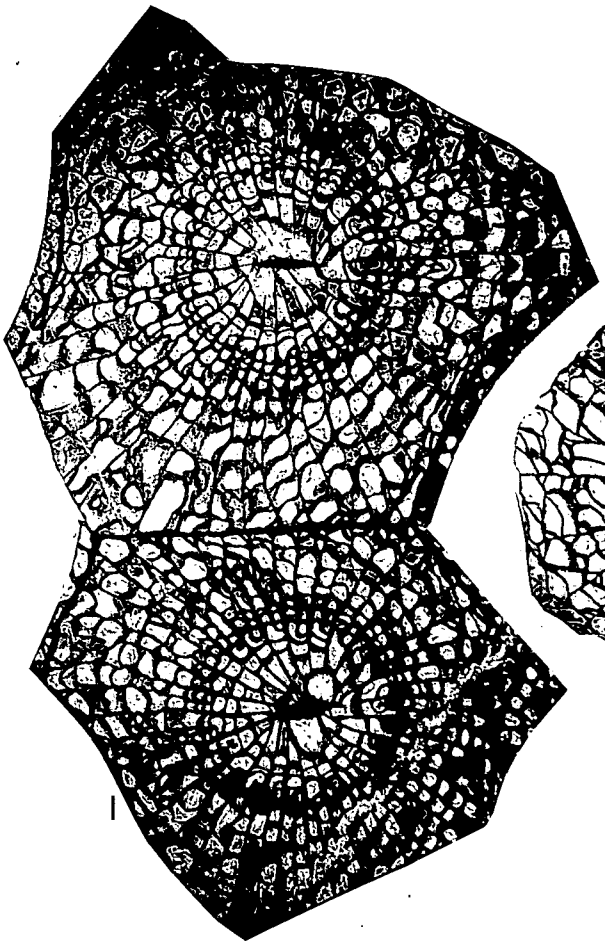
PLATE 15

Fig. 1. L. aranea (McCoy). Porcellaneous Limestone (S2), Ingleton. No. JN 90ai.

Fig. 2. L. aranea (McCoy). Porcellaneous Limestone (S2), Ingleton. No. JN 90aiv.

Fig. 3. L. aranea (McCoy). Porcellaneous Limestone (S2), Ingleton. No. JN 90av.

Fig. 4. L. aranea (McCoy). Great Scar Limestone (?S2), Scaleber, Yorkshire. No. JN 91aii.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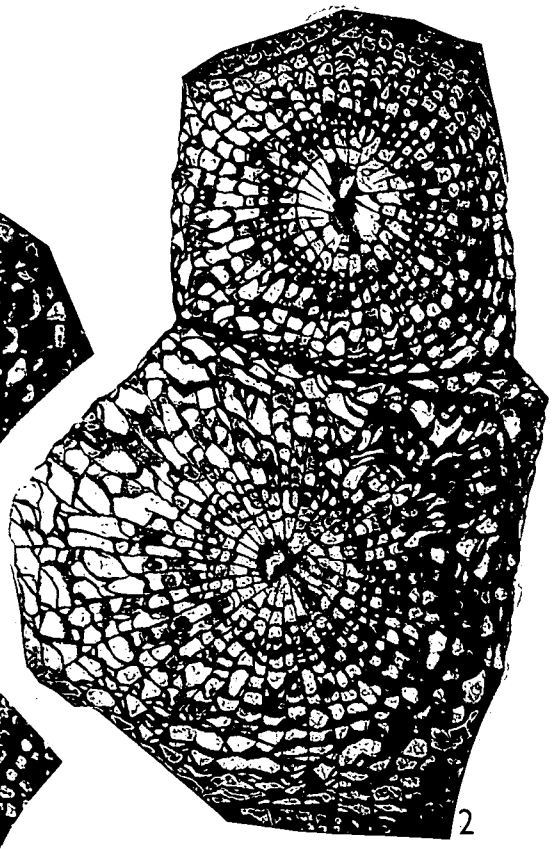
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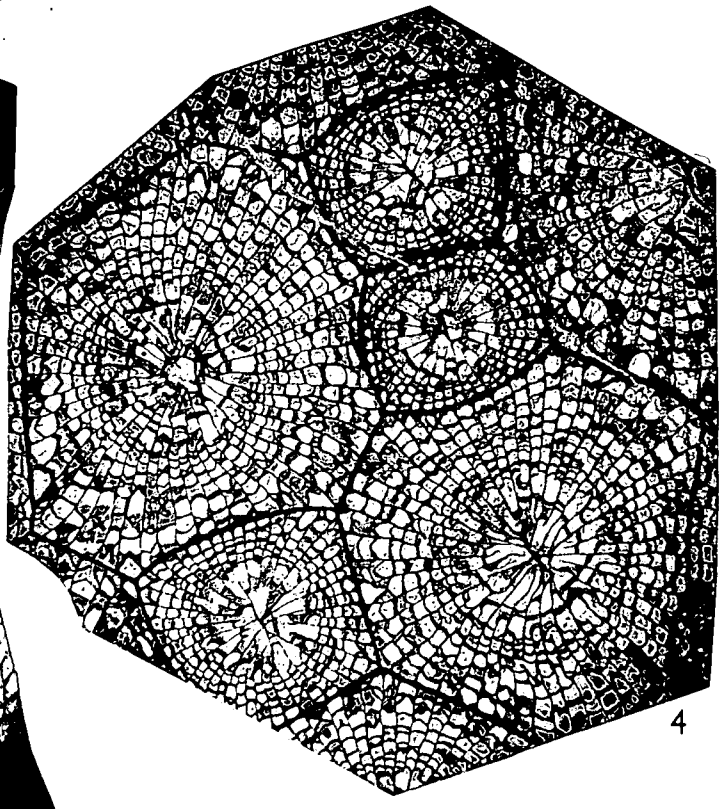
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PLATE 16

Fig. 1. L.aranea(McCoy). Holotype of L.major(McCoy). 'Carboniferous Limestone, Derbyshire'. No. SMA 2397j-k, Sedgwick Museum, Cambridge.

Fig. 2. L.aranea(McCoy). Holotype of L.major(McCoy). 'Carboniferous Limestone, Derbyshire'. No. SMA 2397b, Sedgwick Museum, Cambridge.

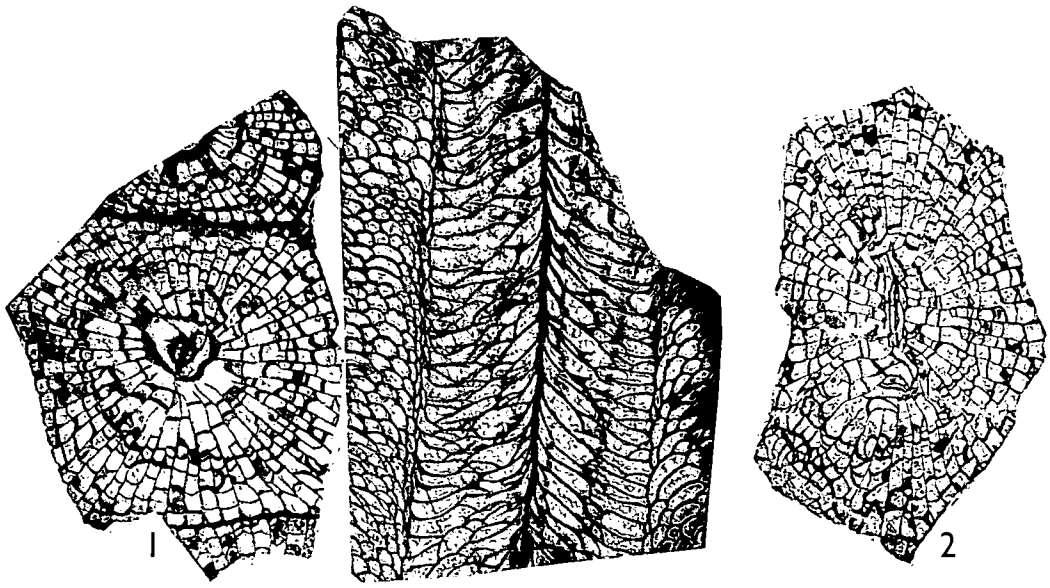
Fig. 3. L.aranea(McCoy). 'D Zone, Lower Carboniferous'. No. P 2003, Palaeontology Collection, Dept. of Geological Sciences, Univ. of Durham.

Fig. 4. L.aranea(McCoy). Great Scar Limestone, Donks Gill, Horton-in-Ribblesdale. No. JN 148aiv.

Fig. 5. L.aranea(McCoy). Great Scar Limestone, Donks Gill, Horton-in-Ribblesdale. No. JN 148aiii.

Fig. 6. L.aranea(McCoy). Great Scar Limestone, Donks Gill, Horton-in-Ribblesdale. No. JN 148ai.

Fig. 7. L.aranea(McCoy). Great Scar Limestone, Donks Gill, Horton-in-Ribblesdale. No. JN 148aii.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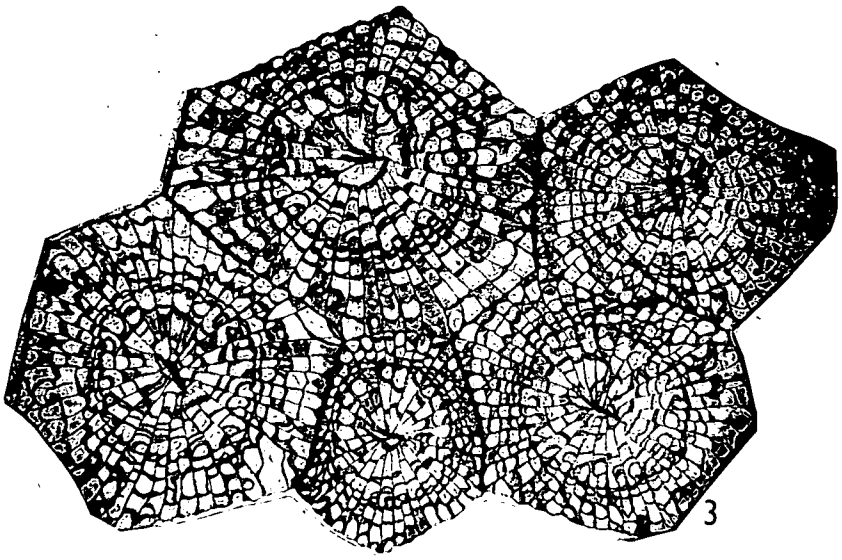
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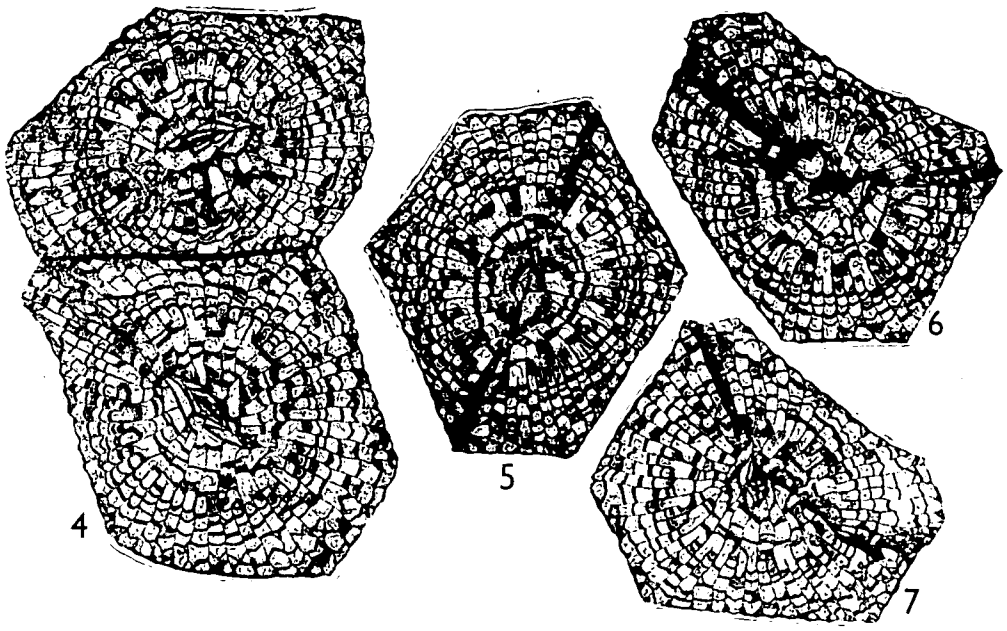
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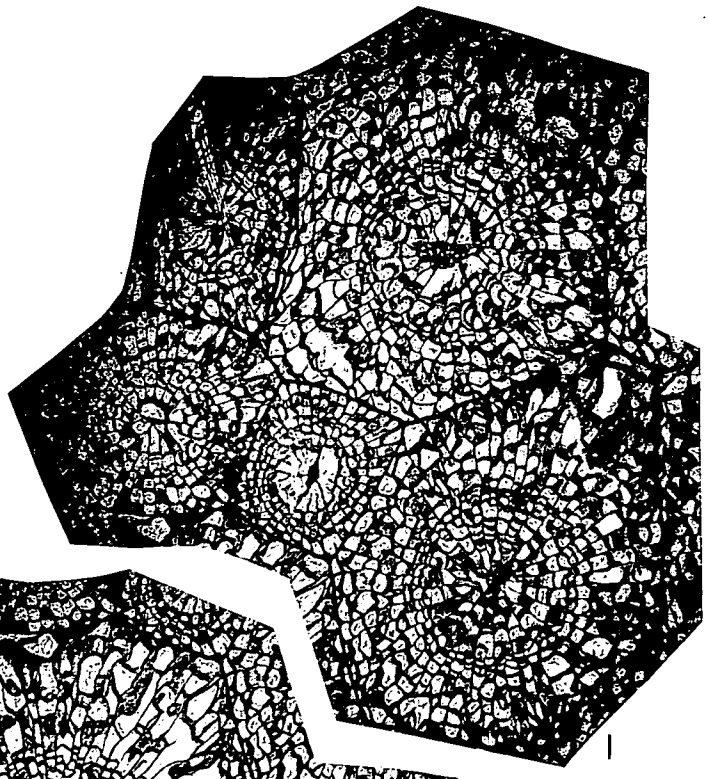
PLATE 17

Figs. 1-2. *L. aranea* (McCoy). Timpony Limestone, Dry Gill House, Stump Cross, Pately Bridge, Yorkshire. No. JN 177jii.

Fig. 3. *L. aranea* (McCoy). Peghorn/Smiddy Limestone, Birkett Hill, Nateby, Cumbria. No. JN 71eiii.



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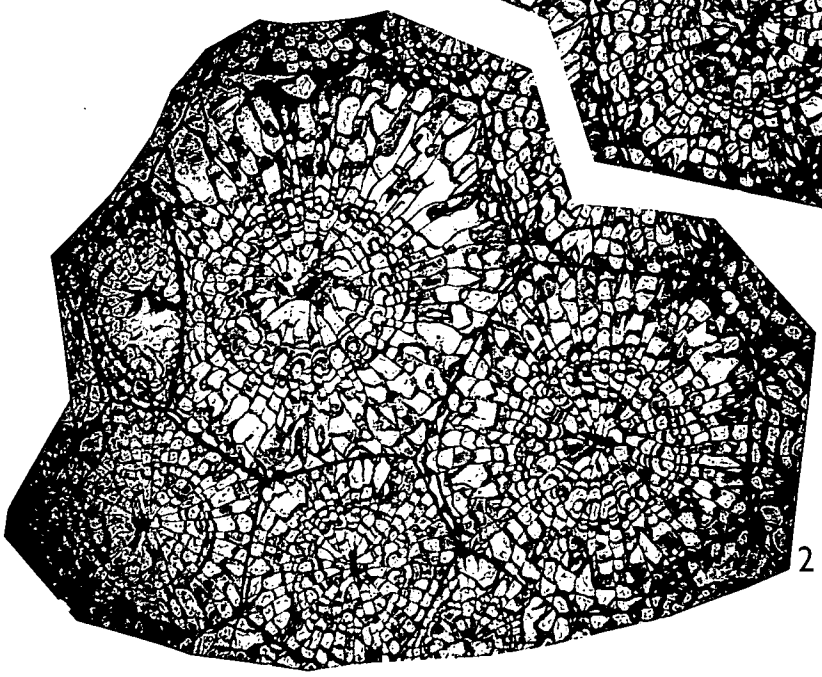

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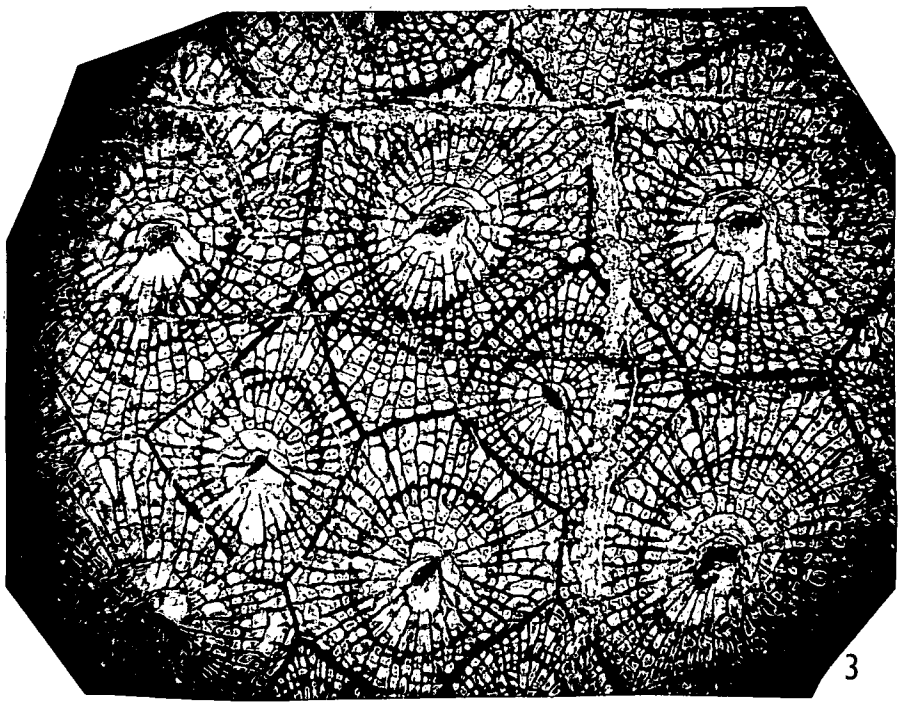

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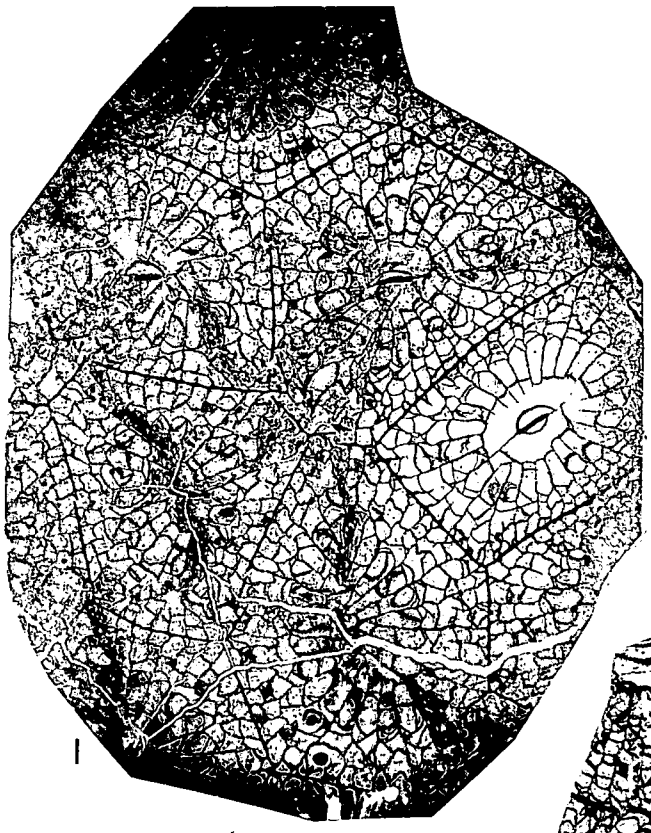
PLATE 18

Fig. 1. L.aranea(McCoy). Syntype of L.septosum(McCoy). 'Carboniferous Limestone, Armagh, Ireland'. No. SMA 2909b, Sedgwick Museum, Cambridge.

Fig. 2. L.aranea(McCoy). Syntype of L.septosum(McCoy). 'Carboniferous Limestone, Armagh, Ireland'. No. SMA 2908b, Sedgwick Museum, Cambridge.

Fig. 3. L.aranea(McCoy). Great Scar Limestone(?S2), Scaleber, Yorkshire. No. JN 164ei.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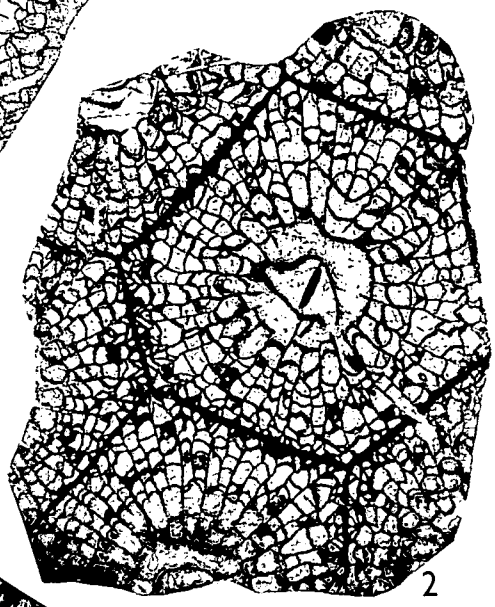
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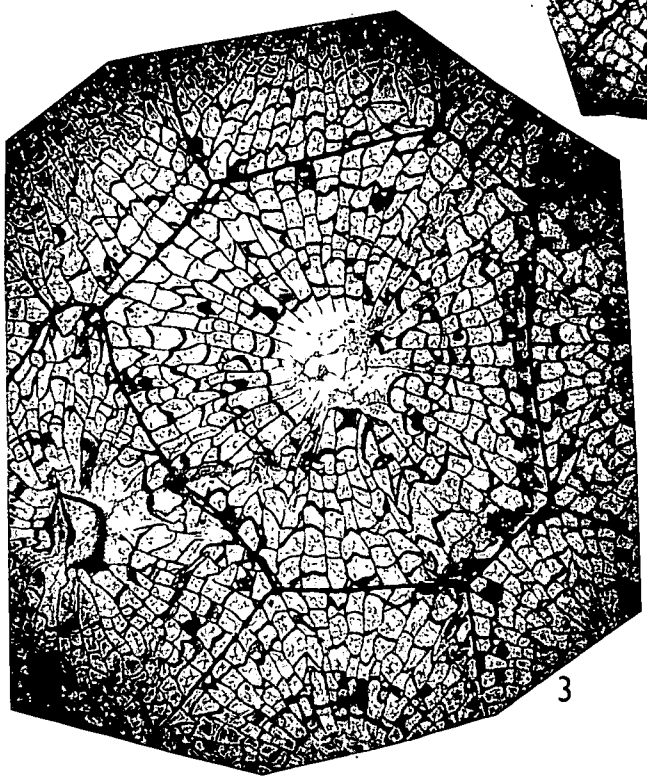
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PLATE 19

Fig. 1. L. junceum junceum (Fleming). 'Carboniferous, Rutherglen, Lanarkshire'. No. HMC 7630c, Ure Collection, Hunterian Museum, Glasgow. Cit'd Hill, 1940, p.171, Ure, 1793, p.327, Kato, 1971, p.6. Section cut from the specimen here chosen as lectotype.

Fig. 2. L. junceum junceum (Fleming). 'Carboniferous, Rutherglen, Lanarkshire'. No. HMC 7630b, Ure Collection, Hunterian Museum, Glasgow. Cit'd Hill, 1940, p.171, Ure, 1793, p.327, Kato, 1971, p.6. Section cut from the specimen here chosen as lectotype.

Fig. 3. L. junceum junceum (Fleming). Great Scar Limestone (D1), High Out Wood, Kirkby Stephen, Cumbria. No. JN 33biv.

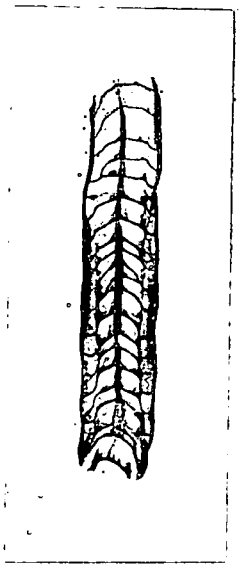
Fig. 4. L. junceum junceum (Fleming). Jew Limestone, Broomlee, Lough, Houseteads, Northumberland. No. JN 72aiv.

Fig. 5. L. junceum junceum (Fleming). Lectotype of L. coarctatum (Portlock). 'Carboniferous Limestone, Upper Limestone, Derry loran, Cookstown, Ireland. No. PF 1916, I.G.S. Collection, Leeds. Fig'd Hill, 1940, p.171, pl.ix, fig.3. Cit'd Portlock, 1843, p.335.

Fig. 6. L. junceum junceum (Fleming). Lectotype of L. coarctatum (Portlock). 'Carboniferous Limestone, Upper Limestone, Derry loran, Cookstown, Ireland. No. PF 1915, I.G.S. Collection, Leeds. Fig'd Hill, 1940, p.171, pl.ix, fig.4. Cit'd Portlock, 1843, p.335.

Fig. 7. L. junceum communicatum subsp. nov. Scar Limestone, Currick Hill, Moor House Reserve, Upper Teesdale. No. JN 74ai.

Fig. 8. L. junceum junceum (Fleming). Limestone 'O' (high D1), Greenlee Burn, N. shore of Greenlee Lough, Northumberland. No. F 88, G.A.L. Johnson Collection, Dept. of Geological Sciences, Univ. of Durham.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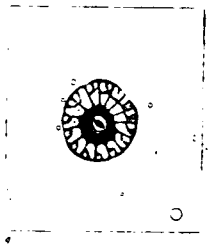
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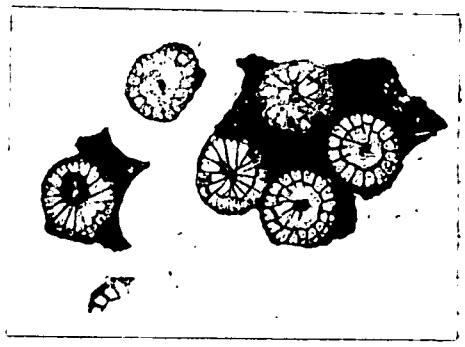
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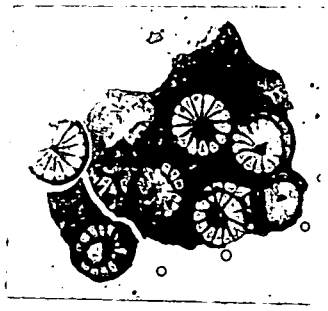
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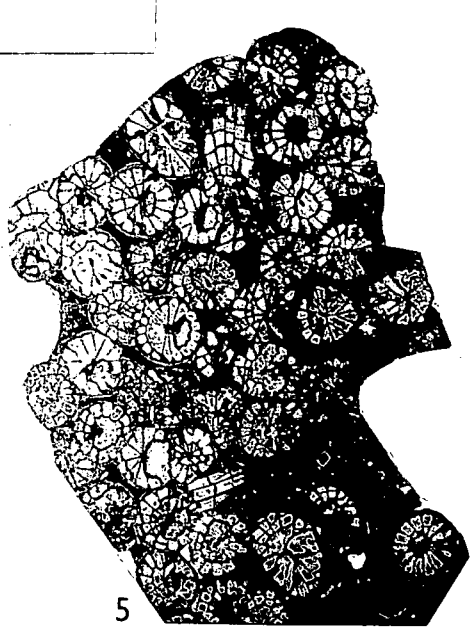
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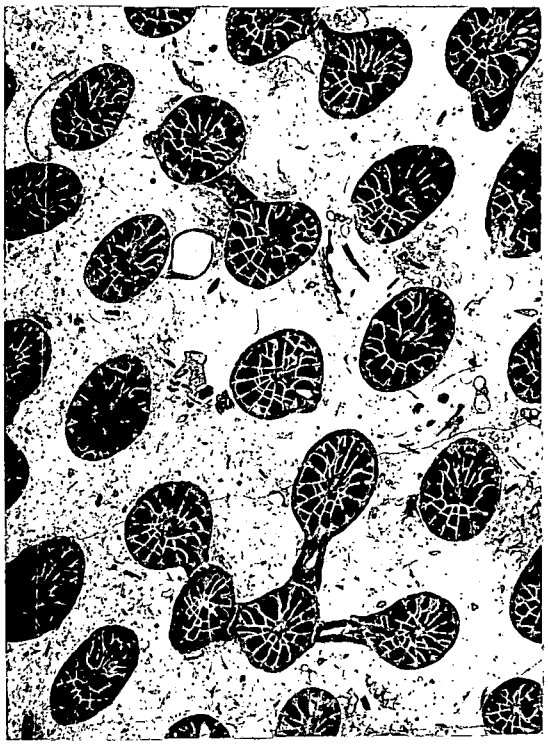

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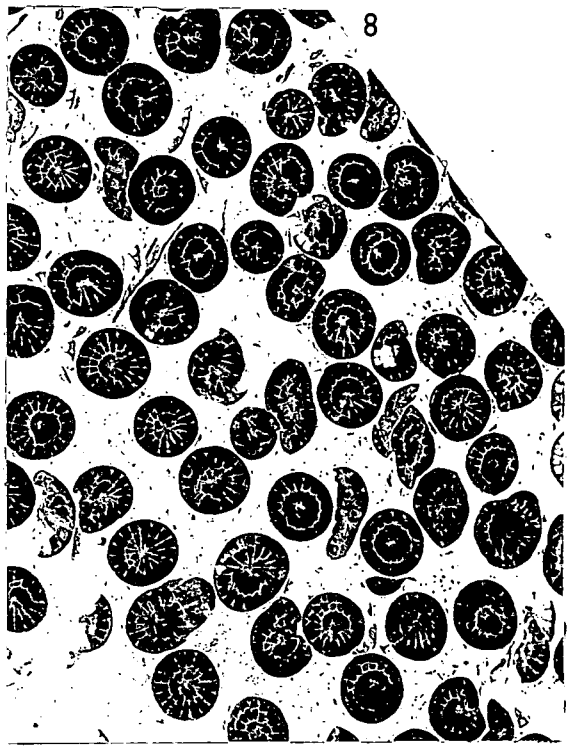

PLATE 20

Fig. 1. L.pauciradiale(McCoy). Lower Limestone, Magheramore, Tobercurry, Co. Sligo, Ireland. No. 53-1926, Griffith Collection, National Museum of Ireland. Fig'd Hill, 1940, p.169, Text fig. C, McCoy, 1844, pl.xxvii, fig.7. Lectotype.

Fig. 2. L.pauciradiale(McCoy). Hardraw Scar Limestone, W. side of Semerwater, Wensleydale. No. JN 188fiii.

Fig. 3. L.pauciradiale(McCoy). Harlow Hill Limestone, Harlow Hill, Northumberland. No. JN 17giii.

Fig. 4. L.pauciradiale(McCoy). Harlow Hill Limestone, Harlow Hill, Northumberland. No. JN 17gi.

Fig. 5. L.pauciradiale(McCoy). Hardraw Scar Limestone, W. side of Semerwater, Wensleydale. No. JN 188fix.

Fig. 6. L.pauciradiale(McCoy). Hawes Limestone, Hawes-Hardraw road, Hardraw, Wensleydale. No. JN 93aiii.


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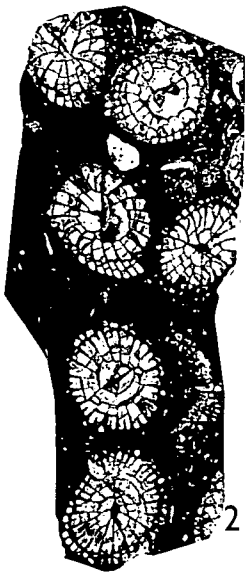
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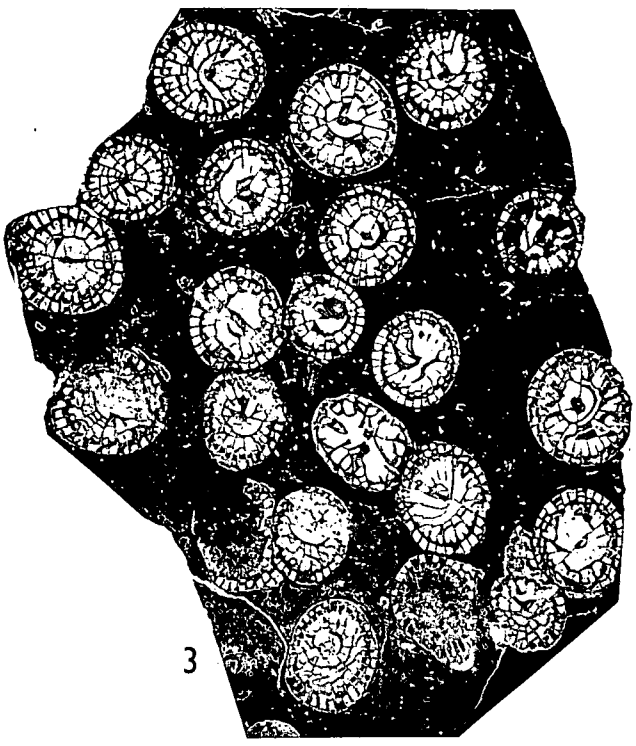
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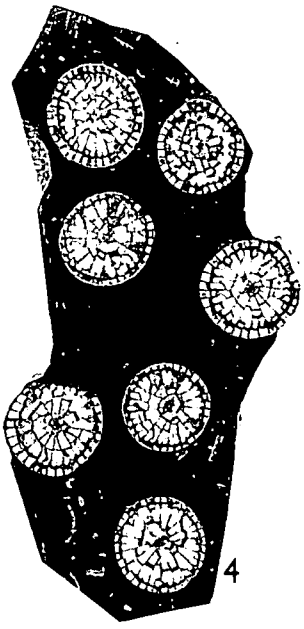
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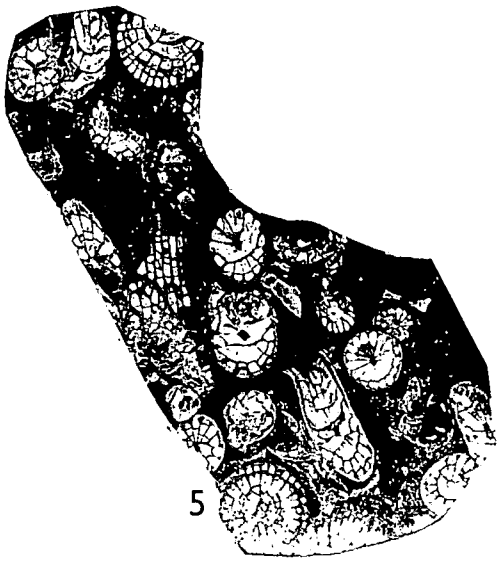
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PLATE 21

Fig. 1. L.irregulare(Phillips). Timpony Limestone, Dry Gill House, Stump Cross, Pately Bridge, Yorkshire. No. JN 177hiii.

Fig. 2. L.irregulare(Phillips). Timpony Limestone, Dry Gill House, Stump Cross, Pately Bridge, Yorkshire. No. JN 177hi.

Fig. 3. L.irregulare(Phillips). Great Scar Limestone, lead mine tips, Ladthwaite Bottom, Nateby, Cumbria. No. JN 70aii.

Fig. 4. L.irregulare(Phillips). Great Scar Limestone, Aysgarth lower falls, Aysgarth, Wensleydale. No. JN 158bii.

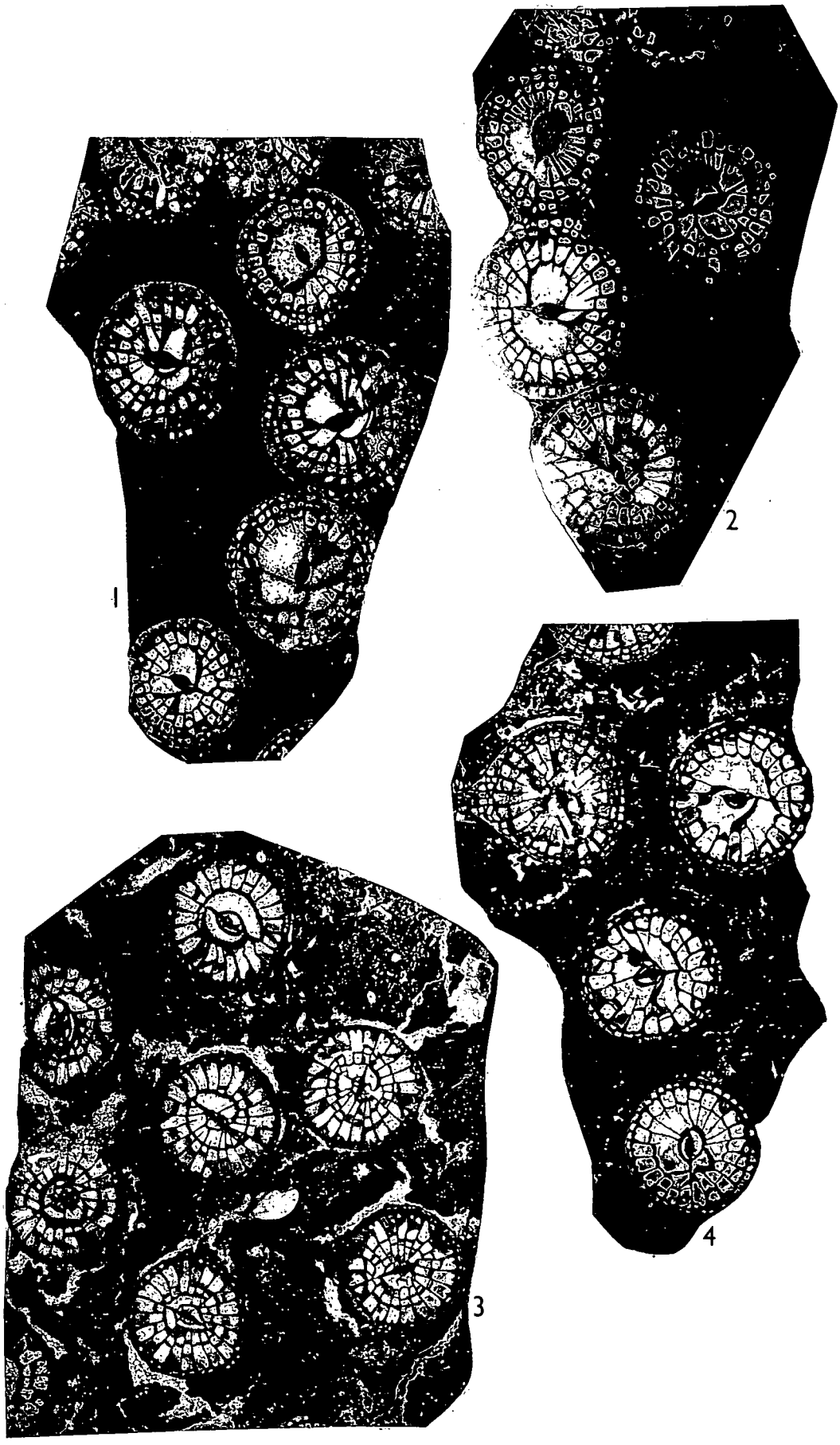
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PLATE 22

Fig. 1. *L.irregulare*(Phillips). Potts Beck Limestone, Potts Beck, Orton, Cumbria. No. JN 185ai.

Fig. 2. *L.irregulare*(Phillips). Bankhouses Limestone, Dowy Scar, Tipalt Burn, Northumberland. No. F 118, G.A.L. Johnson Collection, Dept. of Geological Sciences, University of Durham.

Figs.3-4. *L.irregulare*(Phillips). Bankhouses Limestone, Dowy Scar, Tipalt Burn, Northumberland. No. F 119, G.A.L. Johnson Collection, Dept. of Geological Sciences, University of Durham.

Fig. 5. *L.irregulare*(Phillips). Robinson Limestone, Clouds, Kirkby Stephen, Cumbria. No. JN 24aii.

Fig. 6. *L.irregulare*(Phillips). Robinson Limestone, Clouds, Kirkby Stephen, Cumbria. No. JN 24ai.

Fig. 7. *L.irregulare*(Phillips). Robinson Limestone, Clouds, Kirkby Stephen, Cumbria. No. JN 24av.

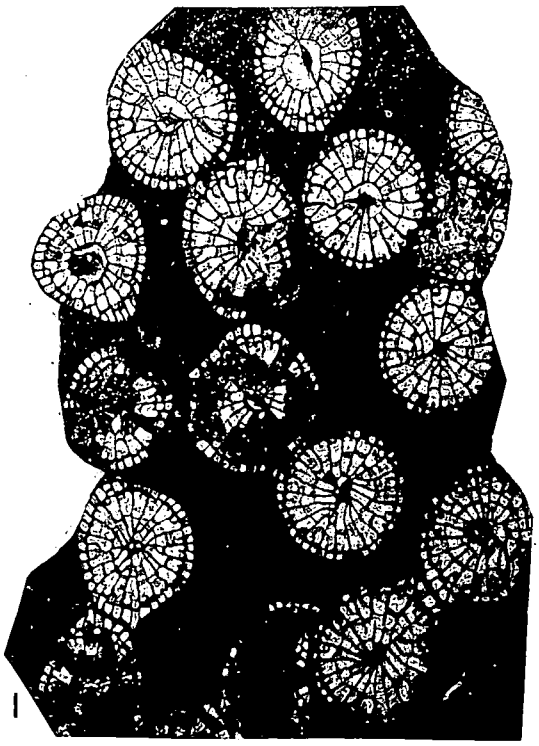
Fig. 8. *L.irregulare*(Phillips). Great Scar Limestone, Aysgarth lower falls, Aysgarth, Wensleydale. No. JN 158dii.

Fig. 9. *L.irregulare*(Phillips). Robinson Limestone, Clouds, Kirkby Stephen, Cumbria. No. JN 24bi.

Fig. 10. *L.irregulare*(Phillips). Robinson Limestone, Clouds, Kirkby Stephen, Cumbria. No. JN 24bii.

Fig. 11. *L.irregulare*(Phillips). Robinson Limestone, Clouds, Kirkby Stephen, Cumbria. No. JN 24bv.

Fig. 12. *L.irregulare*(Phillips). Potts Beck Limestone, Potts Beck, Orton, Cumbria. No. JN 185gi.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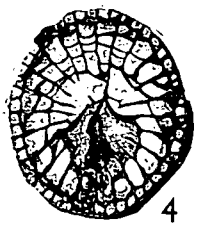
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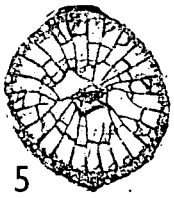
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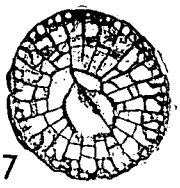
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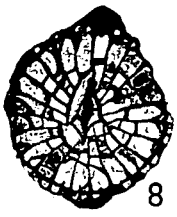
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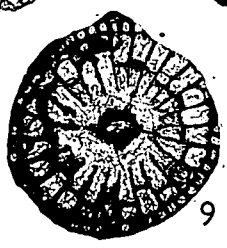
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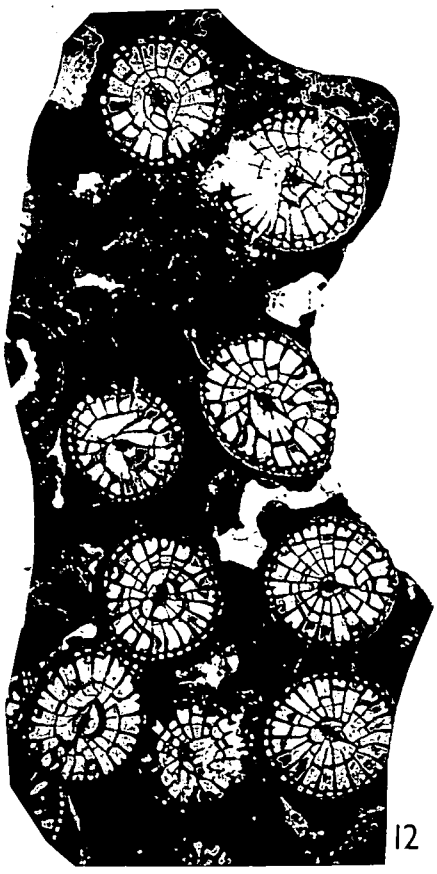
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PLATE 23

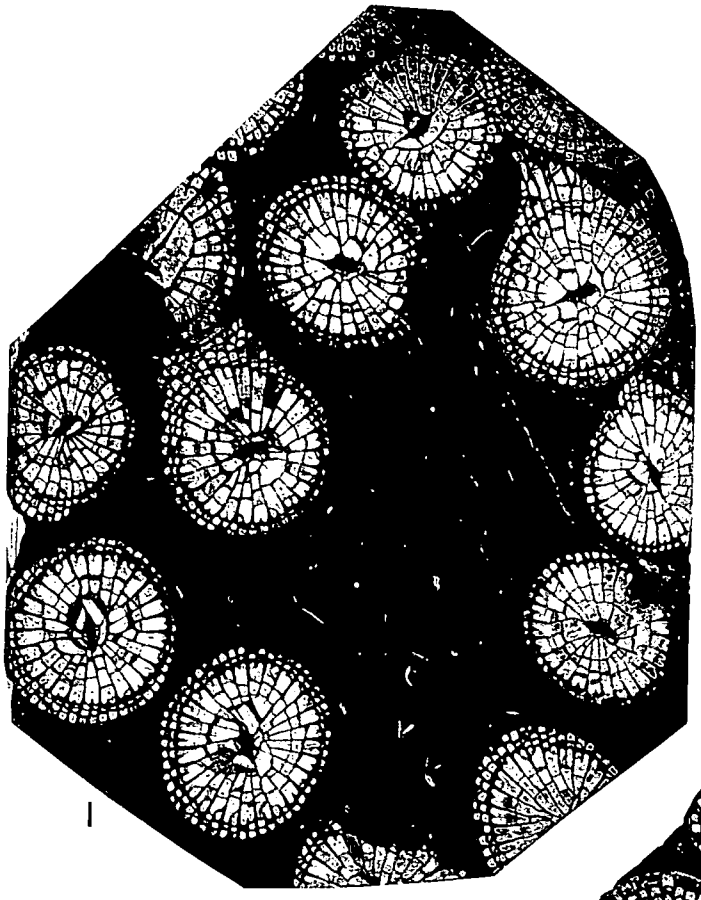
Fig. 1. L.variabile sp. nov. Hardraw Scar Limestone, W. side of Semerwater, Wensleydale. No. JN 188bi. Holotype.

Fig. 2. L.variabile sp. nov. Simonstone Limestone, Cow Pasture Wood, Whernside Pasture, Great Whernside, Kettlewell, Wharfedale. No. JN 169ci.

Fig. 3. L.variabile sp. nov. Simonstone Limestone, Cow Pasture Wood, Whernside Pasture, Great Whernside, Kettlewell, Wharfedale. No. JN 169cv.

Fig. 4. L.variabile sp. nov. Bankhouses Limestone, Low Tipalt, Northumberland. No. JN 197ai.

Fig. 5. L.variabile sp. nov. Simonstone Limestone, Cow Pasture Wood, Whernside Pasture, Great Whernside, Kettlewell, Wharfedale. No. JN 169ci.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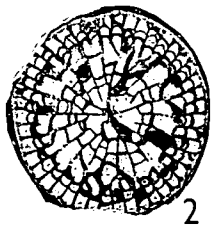
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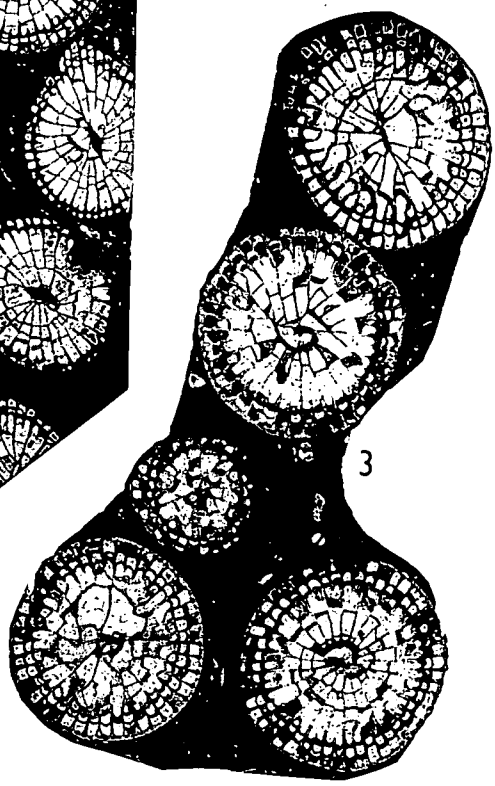
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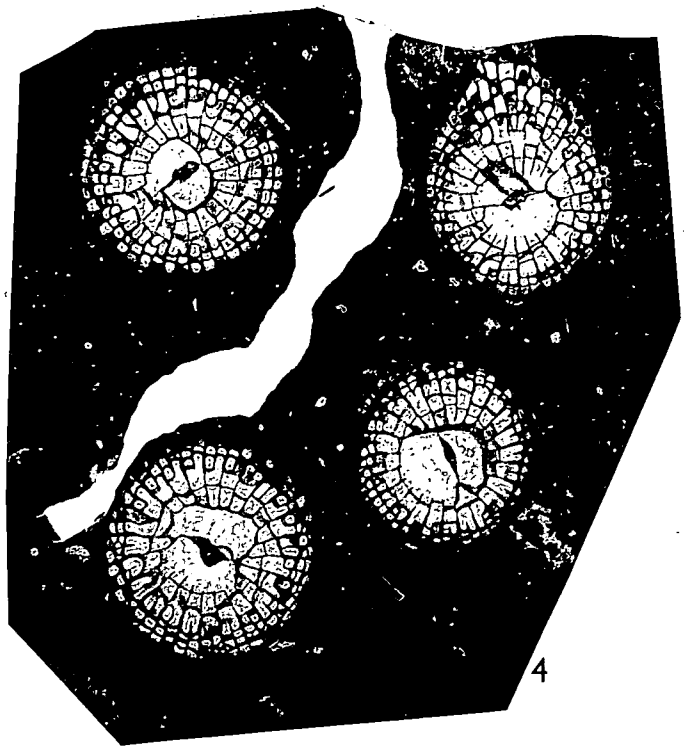
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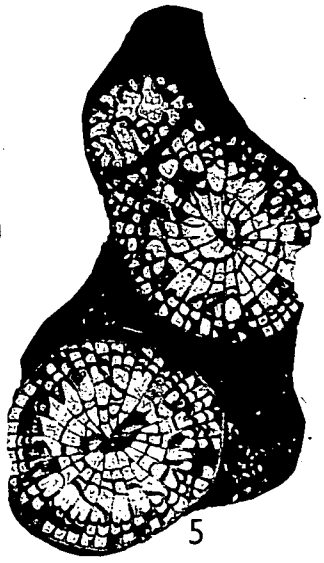
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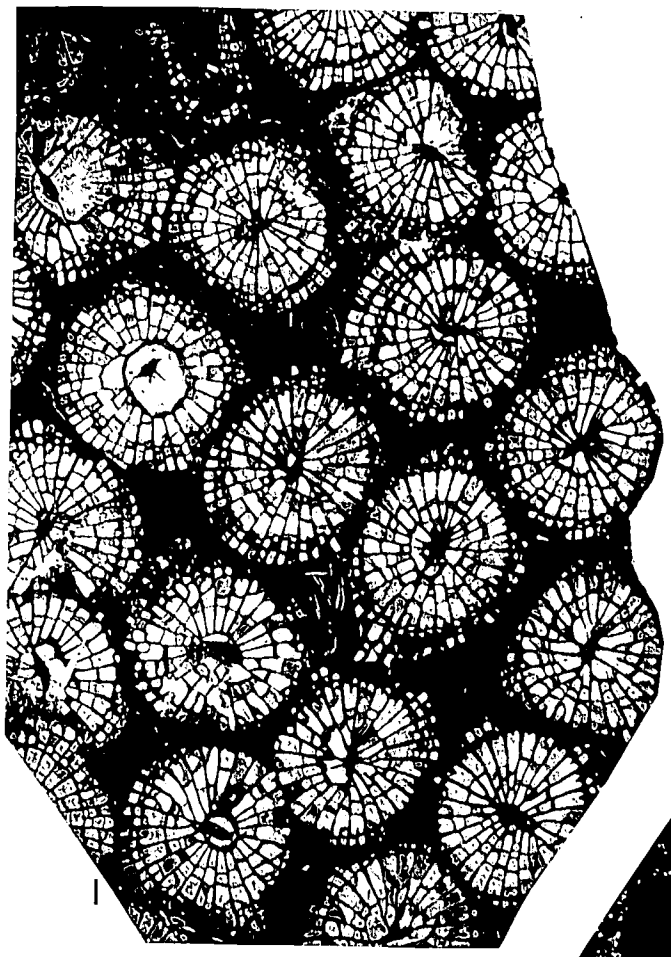
PLATE 24

Fig. 1. *L. variabile sp. nov.* Hardraw Scar Limestone, W. side of Semerwater, Wensleydale. No. JN 188aii.

Fig. 2. *L. variabile sp. nov.* Hardraw Scar Limestone, Friar's Intake, Swaledale. No. JN 134ai.

Fig. 3. *L. variabile sp. nov.* Hardraw Scar Limestone, Mill Gill, Askrigg, Wensleydale. No. JN 133ei.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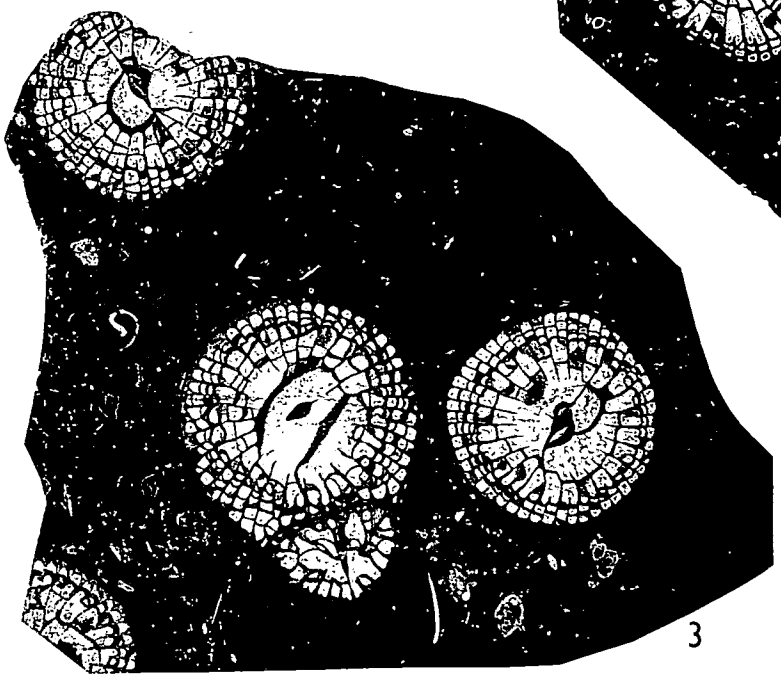
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PLATE 25

Fig. 1. *L.variabile sp. nov.* Hardraw Scar Limestone, W. side of Semerwater, Wensleydale. No. JN 188bviii. Holotype.

Fig. 2. *L.variabile sp. nov.* Hardraw Scar Limestone, W. side of Semerwater, Wensleydale. No. JN 188dv.

Fig. 3. *L.variabile sp. nov.* Hardraw Scar Limestone, W. side of Semerwater, Wensleydale. No. JN 188di.

Fig. 4. *L.variabile sp. nov.* Hardraw Scar Limestone, W. side of Semerwater, Wensleydale. No. JN 188div.

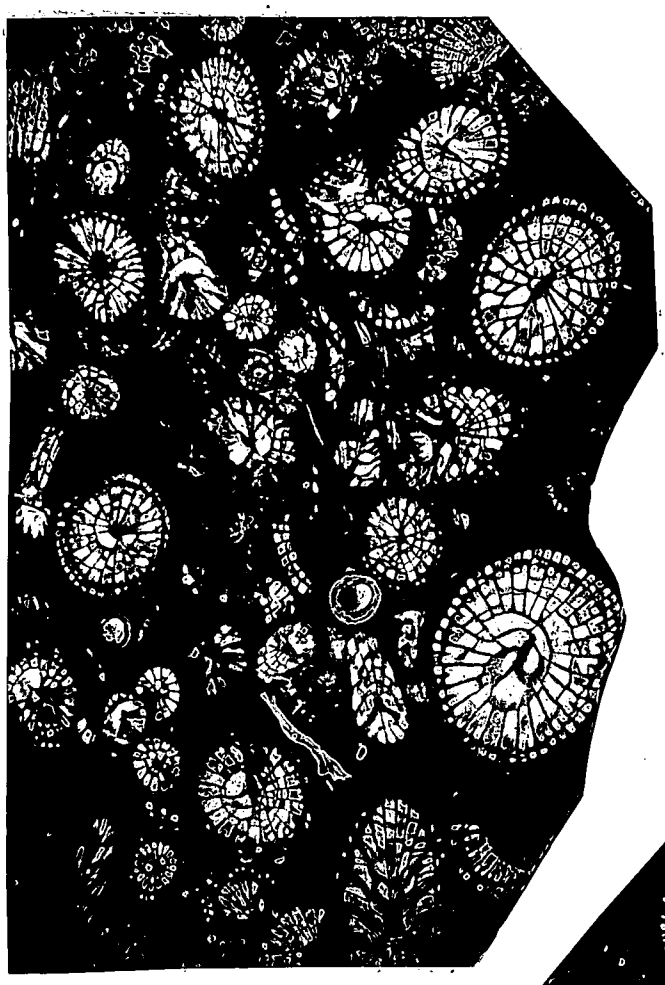

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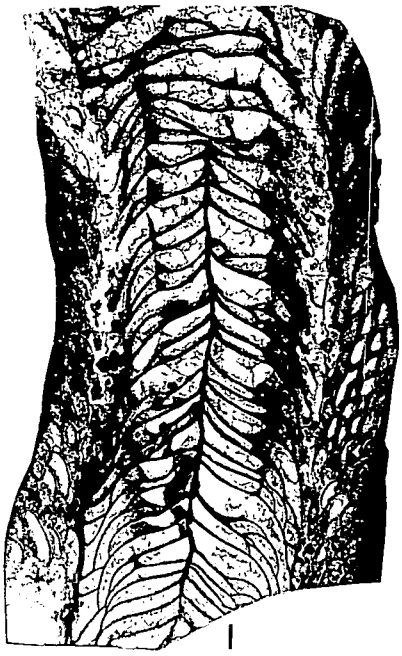
PLATE 26

Figs.1-2. L.martini praenuntium subsp. nov.. Thysanophyllum Limestone, Swallow hole, Ravenstonedale Moor, Ravenstonedale, Cumbria. No. JN 10avii. Holotype.

Figs.3-6. L.martini praenuntium subsp. nov.. Thysanophyllum Limestone, Swallow hole, Ravenstonedale Moor, Ravenstonedale, Cumbria. No. JN 10av. Holotype.

Fig. 7. L.martini praenuntium subsp. nov.. Thysanophyllum Limestone, Old Quarry, ½ W.N.W. of Pinfold Bridge, Kirkby Stephen, Cumbria. No. JN 54ai.

Fig. 8. L.martini praenuntium subsp. nov.. Thysanophyllum Limestone, Old Quarry, near Pinfold Bridge, Kirkby Stephen, Cumbria. No. JN 55aii.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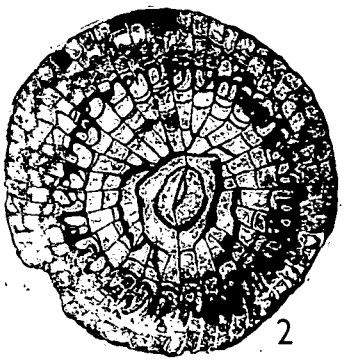
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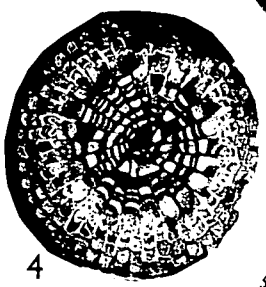
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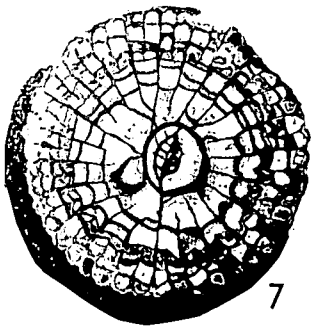
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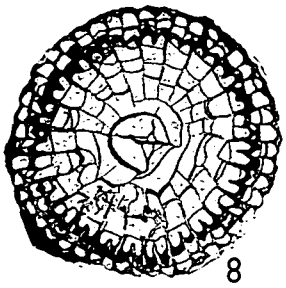
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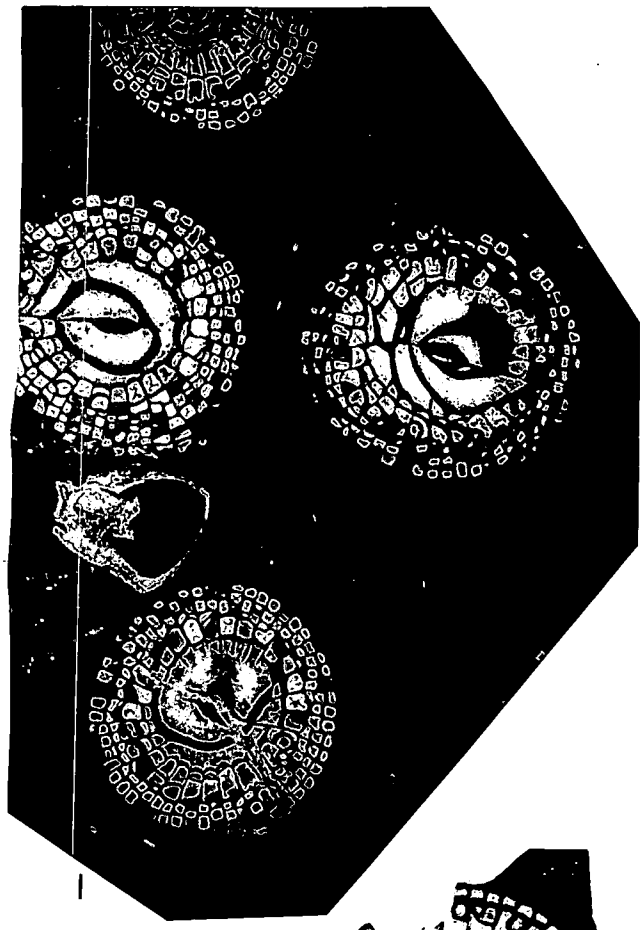
PLATE 27

Fig. 1. *L. martini* Edwards and Haime. Gayle Limestone, Mill Gill, Askrigg, Wensleydale. No. JN 132ai.

Fig. 2. *L. martini* Edwards and Haime. Ash Fell Sandstone, Ash Fell Edge, Ravenstonedale, Cumbria. No. JN 2giii.

Figs. 3-7. *L. martini* Edwards and Haime. Ash Fell Sandstone, Ash Fell Edge, Ravenstonedale, Cumbria. No. JN 2gvii.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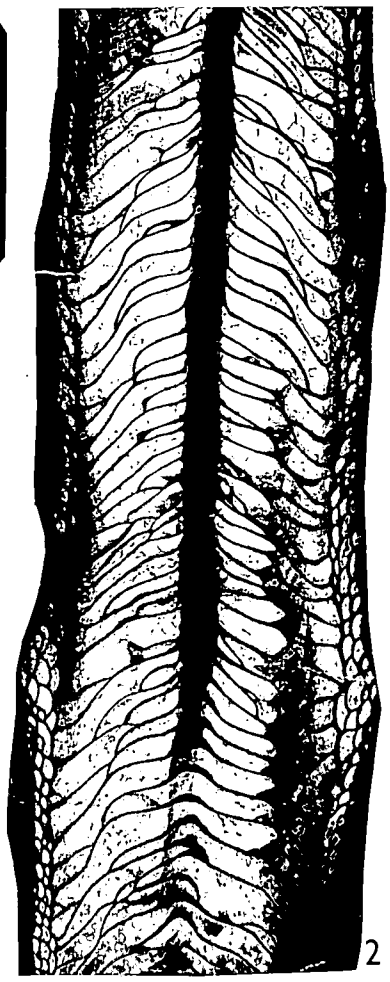
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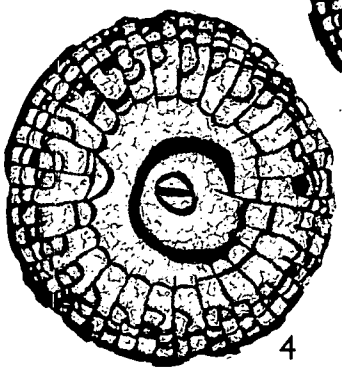
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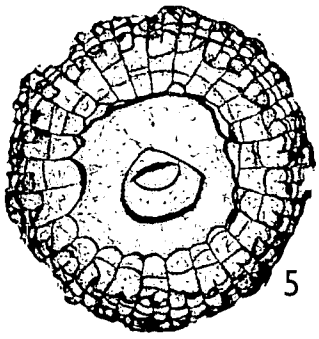
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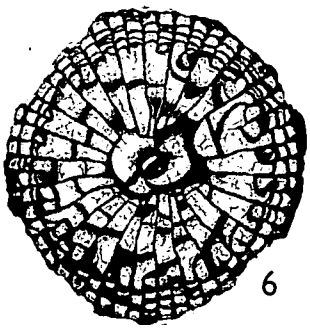
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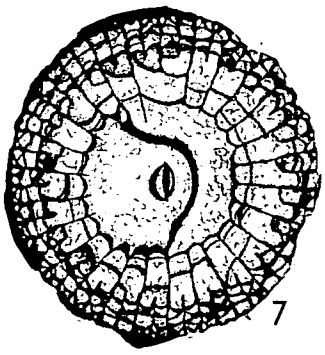
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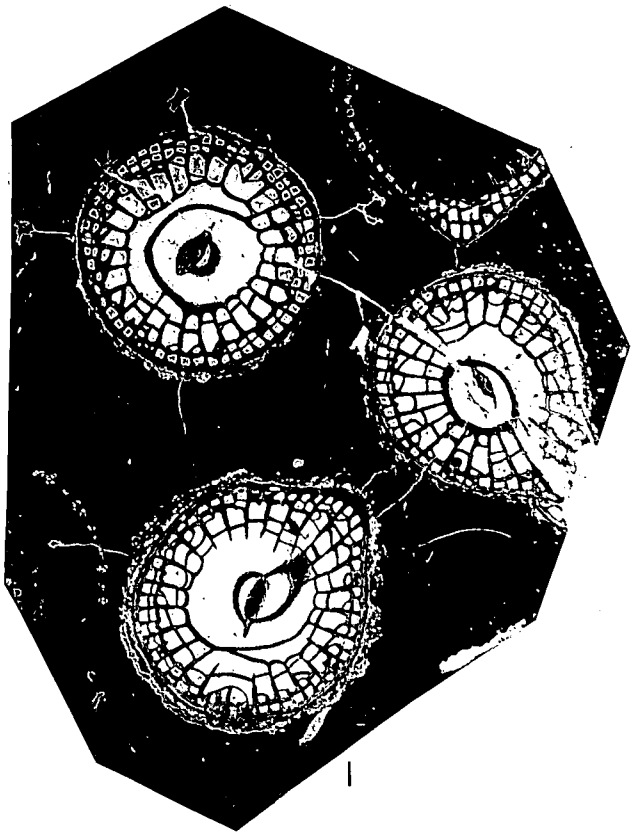
PLATE 28

Fig. 1. L. martini Edwards and Haime. Holotype of L. scoticum Hill. S2/D1, Arbigland Bay, Kirkcudbrightshire, Scotland. No. KM T2008, Kelvingrove Museum, Glasgow. Fig'd Hill, 1940, p.173, pl.ix, fig.9.

Fig. 2. L. martini Edwards and Haime. Holotype of L. scoticum Hill. S2/D1, Arbigland Bay, Kirkcudbrightshire, Scotland. No. KM T2008, Kelvingrove Museum, Glasgow. Fig'd Hill, 1940, p.173, pl.ix, fig.10.

Fig. 3. L. martini Edwards and Haime. S2 limestone, Ash Fell Edge, Ravenstonedale, Cumbria. No. JN 1aiv.

Fig. 4. L. martini Edwards and Haime. S2 limestone, Ash Fell Edge, Ravenstonedale, Cumbria. No. JN 1av.



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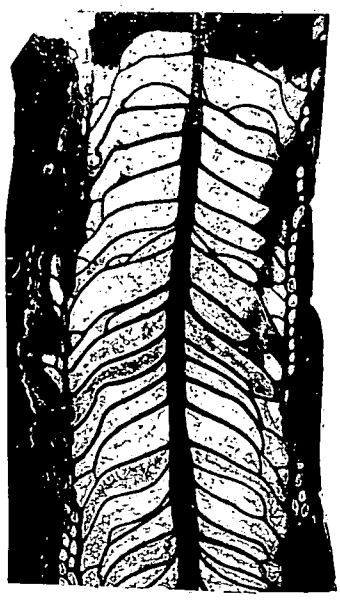

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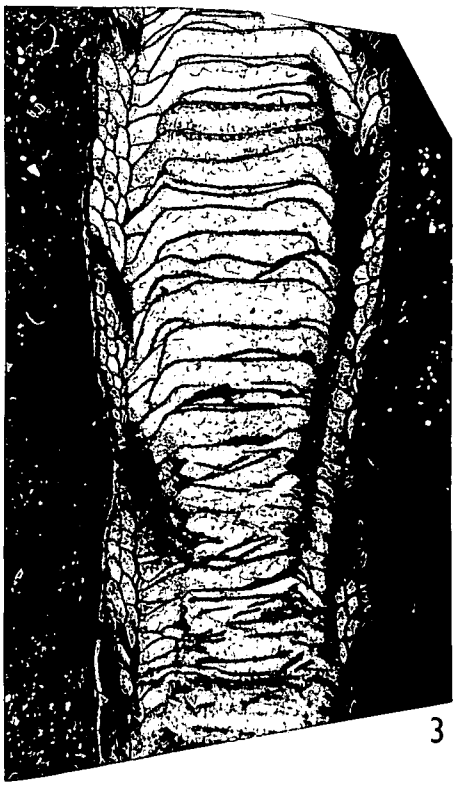

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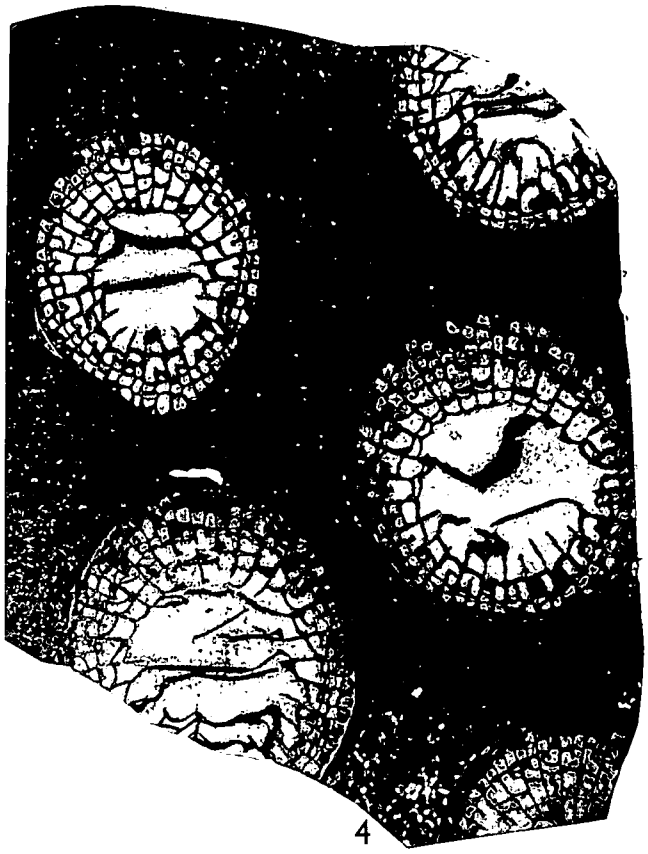

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PLATE 29

Fig. 1. L.sociale(Phillips). Bankhouses Limestone, Low Tipalt Quarry, Northumberland. No. JN 48aiii.

Fig. 2. L.sociale(Phillips). Bankhouses Limestone, Low Tipalt Quarry, Northumberland. No. JN 48ai.

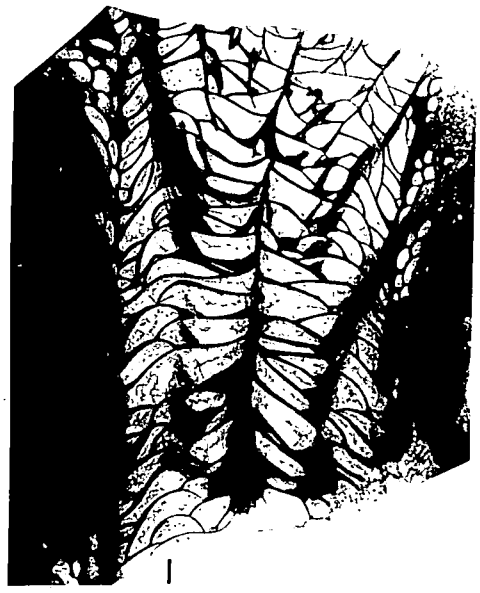
Fig. 3. L.sociale(Phillips). Great Scar Limestone (D1), High Out Wood, Kirkby Stephen, Cumbria. No. JN 33avi.

Fig. 4. L.sociale(Phillips). Great Scar Limestone (D1), High Out Wood, Kirkby Stephen, Cumbria. No. JN 33avii.

Fig. 5. L.sociale(Phillips). Great Scar Limestone (D1), High Out Wood, Kirkby Stephen, Cumbria. No. JN 33av.

Fig. 6. L.sociale(Phillips). Great Scar Limestone, Hartley Quarry, Kirkby Stephen, Cumbria. No. JN 19tv.

Fig. 7. L.sociale(Phillips). Great Scar Limestone, Hartley Quarry, Kirkby Stephen, Cumbria. No. JN 19tvi.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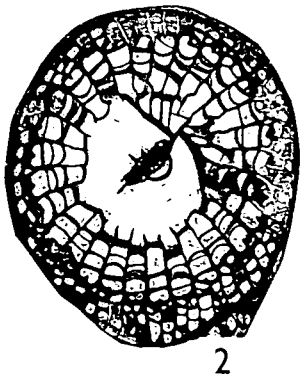
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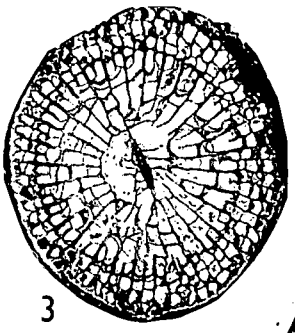
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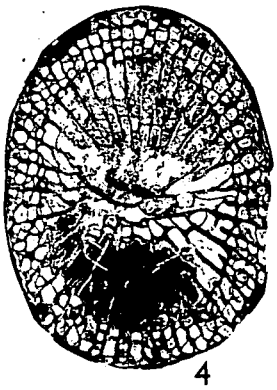
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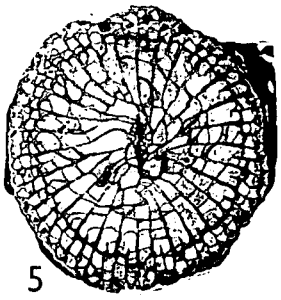
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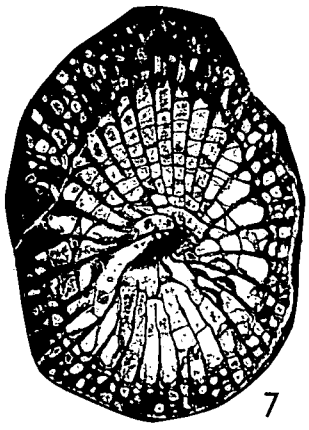
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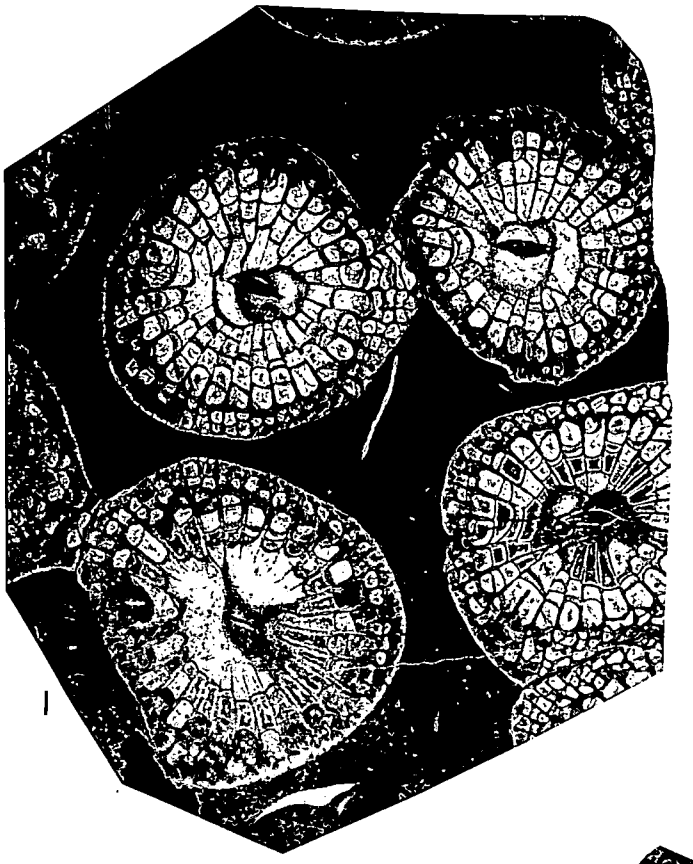
PLATE 30

Fig. 1. L.sociale(Phillips). Great Scar Limestone, Hartley Quarry, Kirkby Stephen, Cumbria. No. JN 19kii.

Fig. 2. L.sociale(Phillips). Great Scar Limestone, Foggy Gill Farm, Clouds, Kirkby Stephen, Cumbria. No. JN 62aii.

Fig. 3. L.sociale(Phillips). Great Scar Limestone, Foggy Gill Farm, Clouds, Kirkby Stephen, Cumbria. No. JN 62ai.

Fig. 4. L.sociale(Phillips). Great Scar Limestone, Hartley Quarry, Kirkby Stephen, Cumbria. No. JN 19ki.



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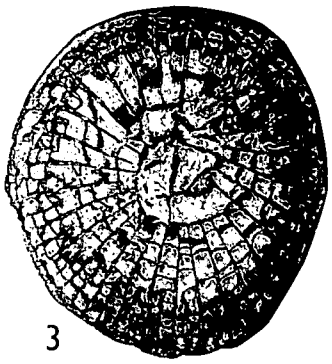

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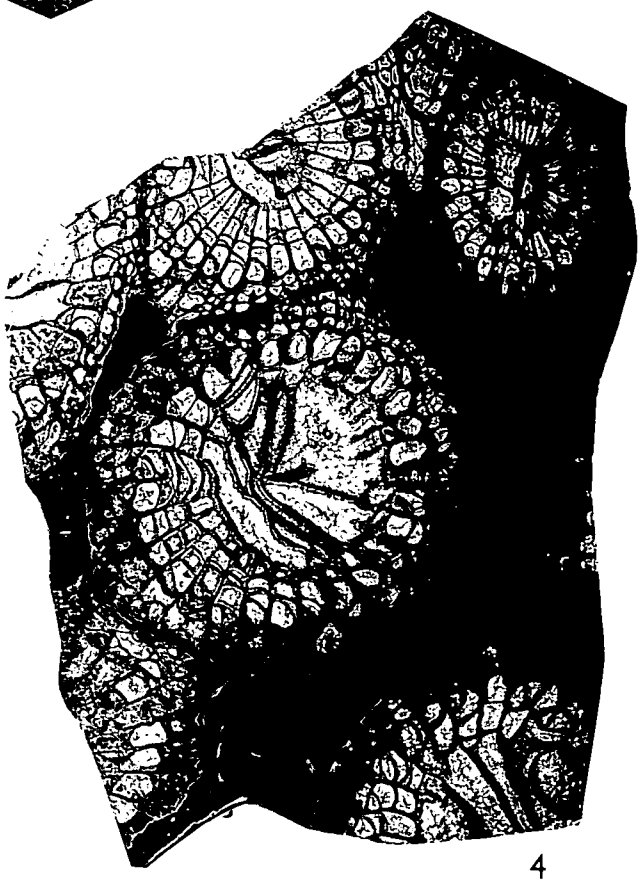

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PLATE 31

Fig. 1. *L. scaleberense sp. nov.* Great Scar Limestone (?S2), Scaleber Quarry, Scaleber, Yorkshire. No. P 4699v, Dept. of Geological Sciences Collection, University of Durham.

Fig. 2. *L. scaleberense sp. nov.* Great Scar Limestone (?S2), Scaleber Quarry, Scaleber, Yorkshire. No. P 4699iv, Dept. of Geological Sciences Collection, University of Durham.

Fig. 3. *L. scaleberense sp. nov.* Great Scar Limestone (?S2), Scaleber Quarry, Scaleber, Yorkshire. No. P 4699i, Dept. of Geological Sciences Collection, University of Durham.

Fig. 4. *L. scaleberense sp. nov.* Great Scar Limestone (?S2), Scaleber Quarry, Scaleber, Yorkshire. No. P 4699ii, Dept. of Geological Sciences Collection, University of Durham.

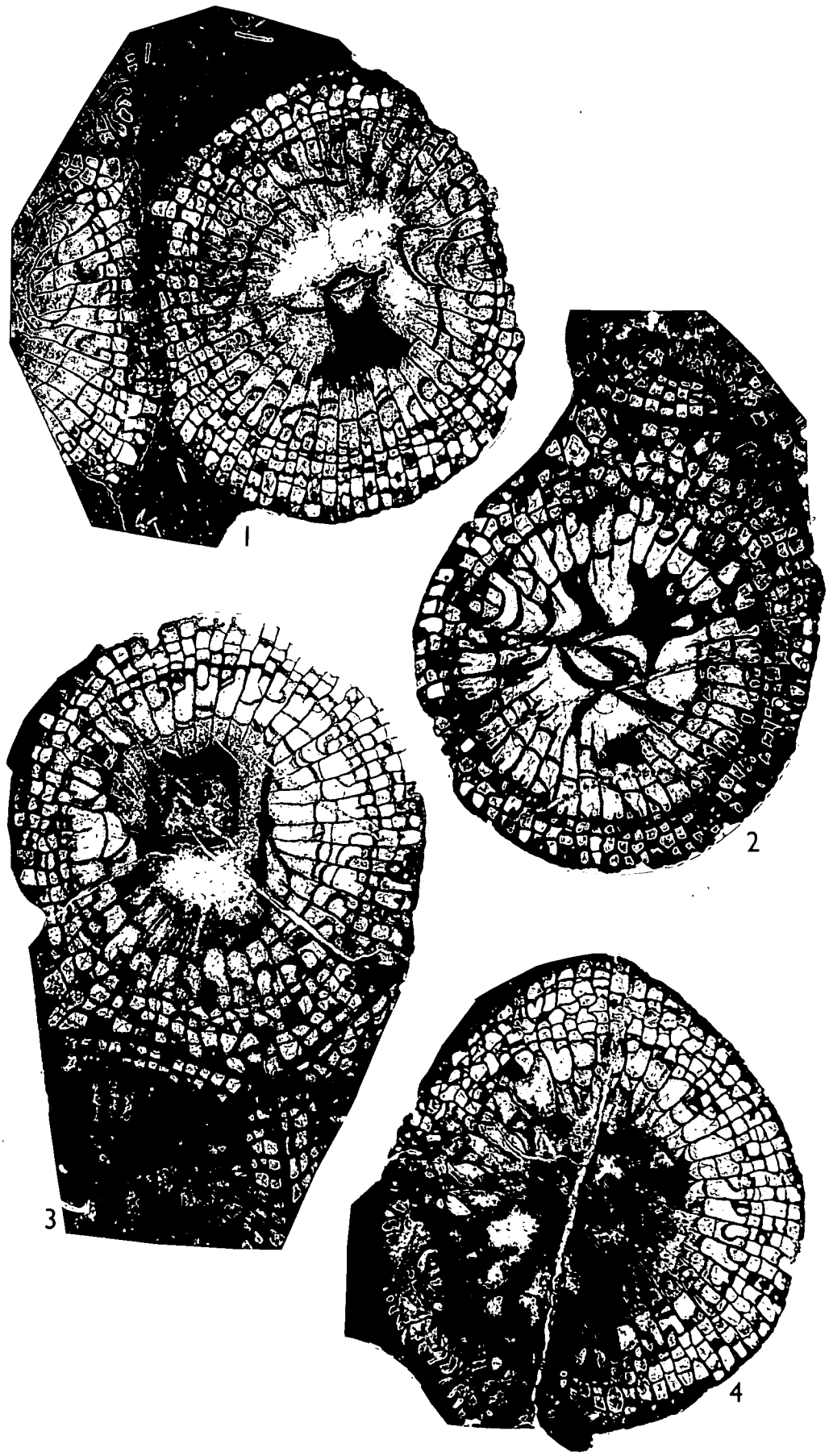
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PLATE 32

Fig. 1. L.affine(Fleming). Carboniferous Limestone, West Lothian, Scotland. No. RSM 1870.14.381, Fleming Collection, Royal Scottish Museum, Edinburgh. Fig'd Kato, 1971, p.4, pl.1, figs.1-2. Lectotype.

Figs.2-4. L.affine(Fleming). Carboniferous Limestone, West Lothian, Scotland. No. RSM 1870.14.381, Fleming Collection, Royal Scottish Museum, Edinburgh. Lectotype.

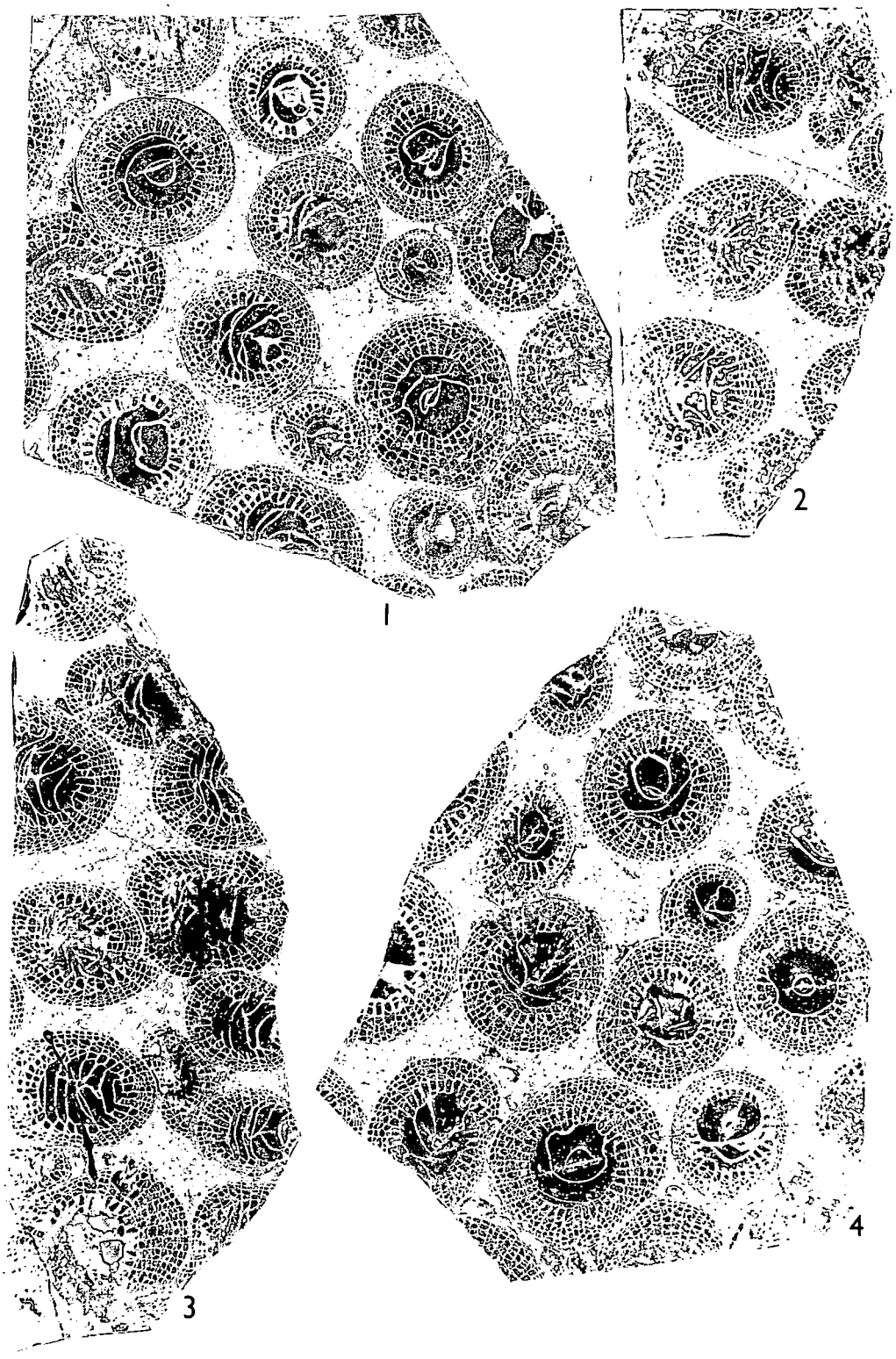
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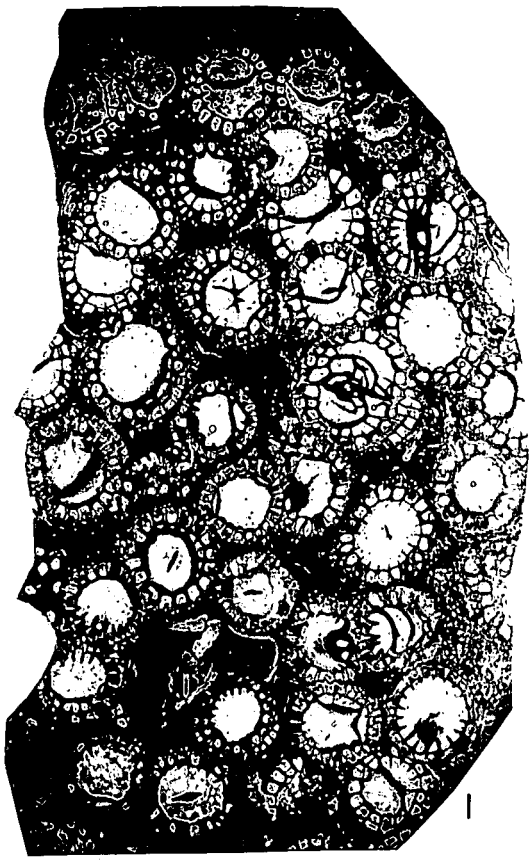
PLATE 33

Fig. 1. L.gracile(McCoy). 'Carboniferous Limestone, Lowick, Northumberland'. No. SMA 2418, Sedgwick Museum, Cambridge. Fig'd Smith and Lang, 1930, p.183, pl.vii, fig.6. Holotype.

Fig. 2. L.gracile(McCoy). 'Lower Carboniferous, Lowick, Northumberland'. No. SMA 2418c, Sedgwick Museum, Cambridge. Holotype.

Fig. 3. L.gracile(McCoy). Middle Limestone, Long Acres Quarry, Middleton Tyas, Yorkshire. No. JN 190bv.

Fig. 4. L.gracile(McCoy). Middle Limestone, Long Acres Quarry, Middleton Tyas, Yorkshire. No. JN 190biv.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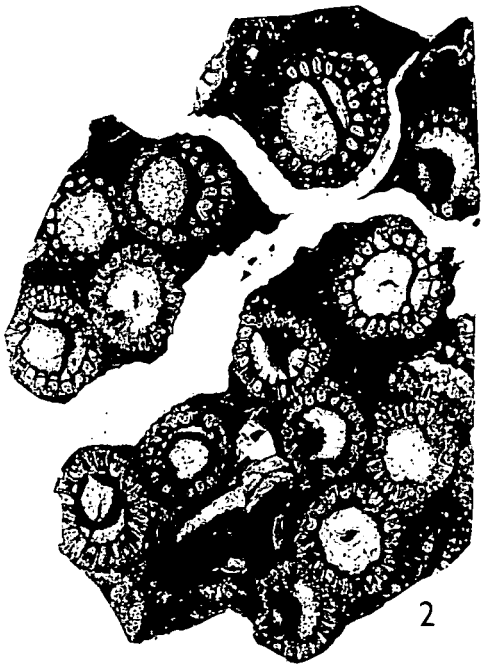
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PLATE 34

Fig. 1. L.gracile(McCoy). Main Limestone, High Clint, Hardraw, Wensleydale. No. JN 97aii.

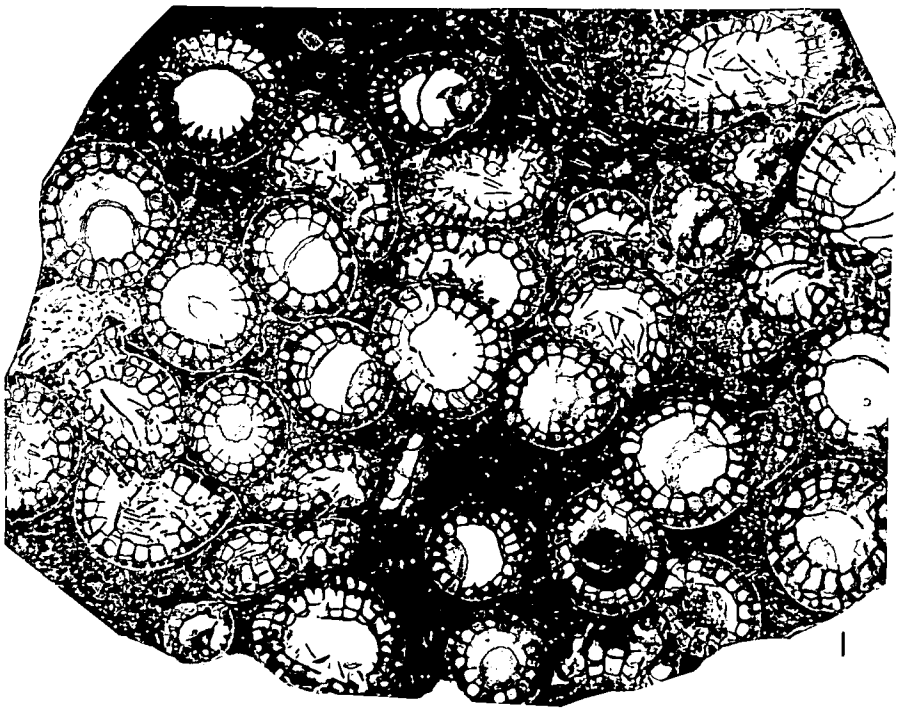
Fig. 2. L.gracile(McCoy). Lower Limestone Group, Fife, Scotland. No. JN 193ai.

Fig. 3. L.gracile(McCoy). Base of Middle Limestone, Birks Gill, Swaledale. No. JN 173aiii.

Fig. 4. L.gracile(McCoy). Base of Middle Limestone, Birks Gill, Swaledale. No. JN 173av.

Fig. 5. L.gracile(McCoy). Base of Middle Limestone, Birks Gill, Swaledale. No. JN 173aiv.

Fig. 6. L.gracile(McCoy). Base of Middle Limestone, Birks Gill, Swaledale. No. JN 173axiv.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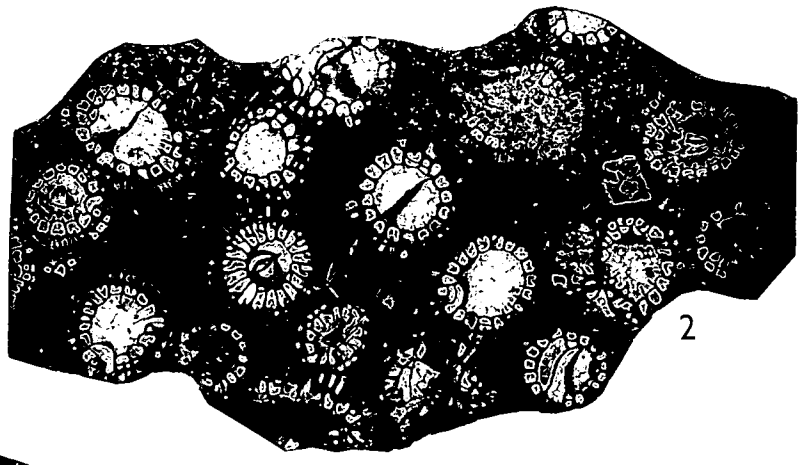
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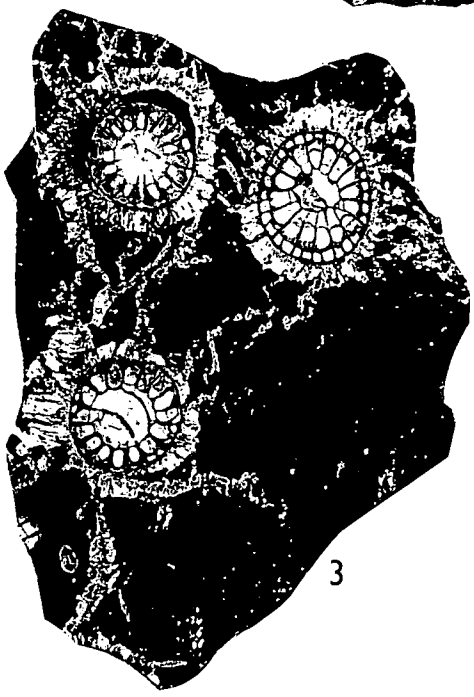
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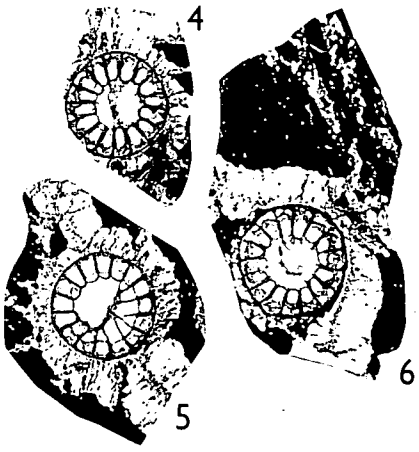
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PLATE 35

Fig. 1. L.gracile(McCoy). Great Limestone, Rookhope, Weardale. No. JN 192aii.

Fig. 2. L.gracile(McCoy). Simonstone Limestone, Hawbank, Woodhall, Wensleydale. No. JN 143biv.

Fig. 3. L.gracile(McCoy). Simonstone Limestone, Hawbank, Woodhall, Wensleydale. No. JN 143bvii.

Fig. 4. L.gracile(McCoy). Base of Middle Limestone, West Burton, Wensleydale. No. JN 178avi.

Fig. 5. L.gracile(McCoy). Base of Middle Limestone, West Burton, Wensleydale. No. JN 178ai.

Fig. 6. L.gracile(McCoy). Base of Middle Limestone, West Burton, Wensleydale. No. JN 178aii.

Fig. 7. L.gracile(McCoy). Base of Middle Limestone, West Burton, Wensleydale. No. JN 178axi.

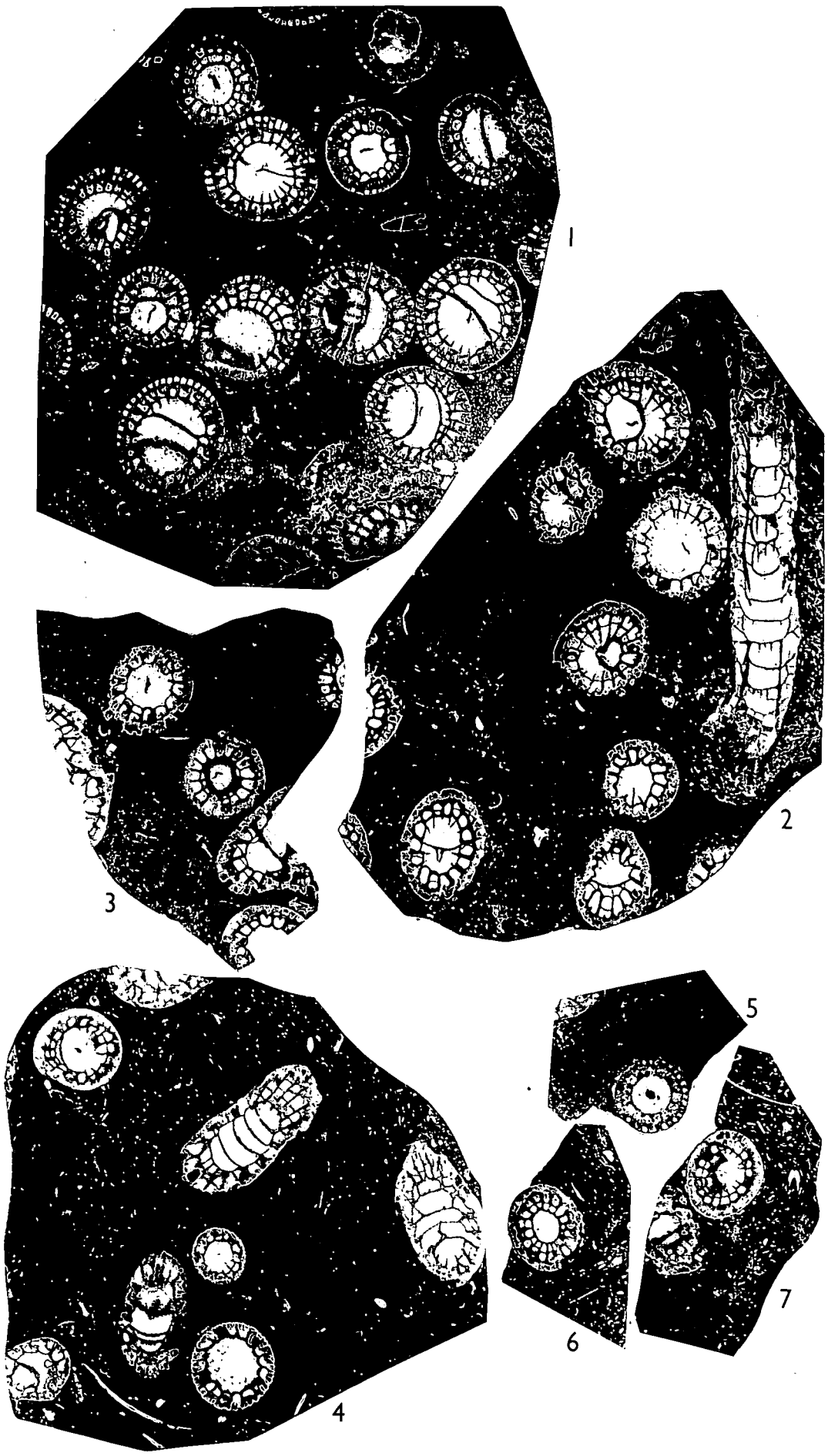
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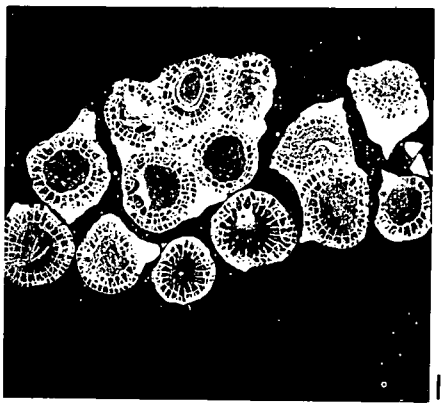
PLATE 36

Fig. 1. L. fasciculatum (Fleming). Lower Carboniferous, Skale Craig, Dunbar, Scotland. No. RSM 1870.14.374a, Fleming Collection, Royal Scottish Museum, Edinburgh. Fig'd Smith and Lang, 1930, p.183, pl.vii, fig.8. Lectotype. X2.

Fig. 2. L. fasciculatum (Fleming). Lower Carboniferous, Skale Craig, Dunbar, Scotland. No. RSM 1870.14.374b, Fleming Collection, Royal Scottish Museum, Edinburgh. Fig'd Smith and Lang, 1930, p.183, pl.vii, fig.7. Lectotype. X2.

Fig. 3. L. fasciculatum (Fleming). Great Limestone, Frosterley Marble Quarry, Frosterley, Weardale. No. JN 53aii.

Fig. 4. L. fasciculatum (Fleming). Three Yard Limestone, Waitgate Gill, Waitgate, Richmond, Yorkshire.



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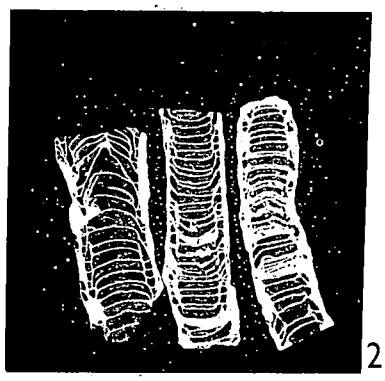

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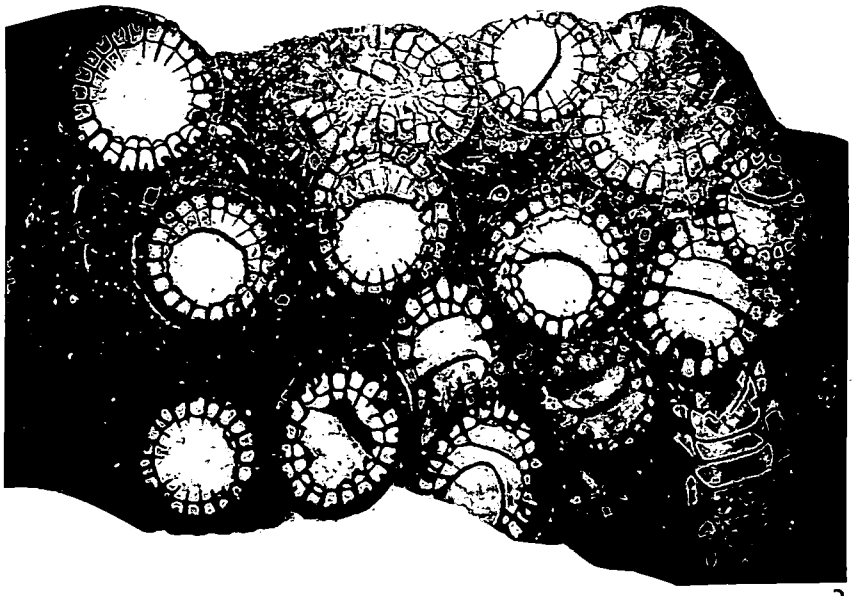

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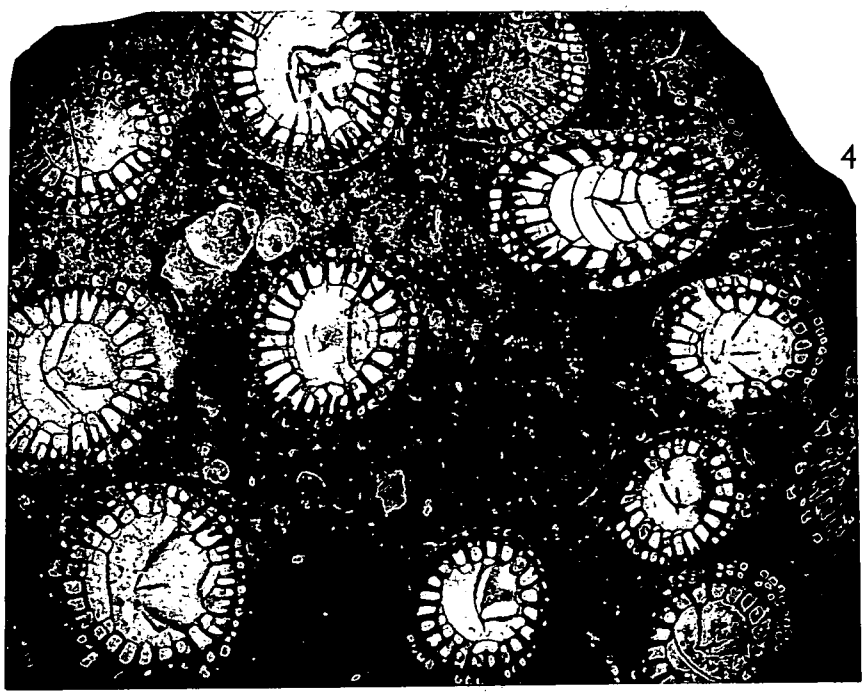

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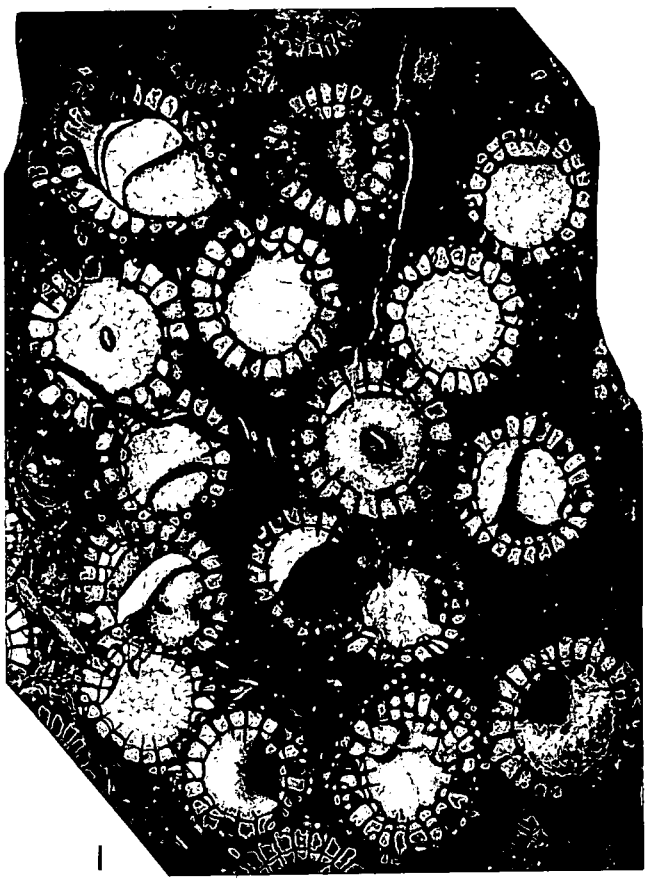
PLATE 37

Fig. 1. L.fasciculatum(Fleming). Undersett Limestone, Thackthwaite Beck, Woodhall, Wensleydale. No. JN 103fiv.

Fig. 2. L.fasciculatum(Fleming). Middle Limestone, Long Acres Quarry, Middleton Tyas, Yorkshire. No. JN 190axi.



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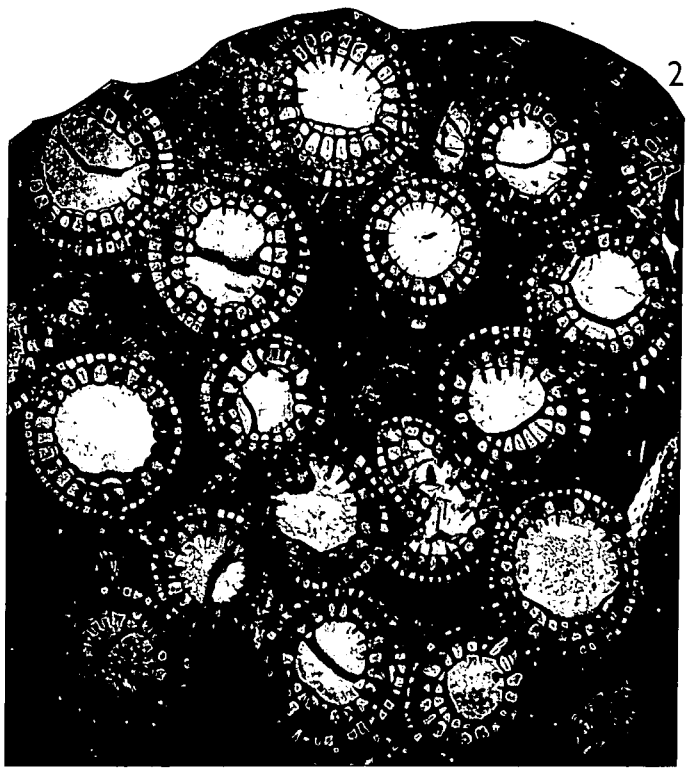

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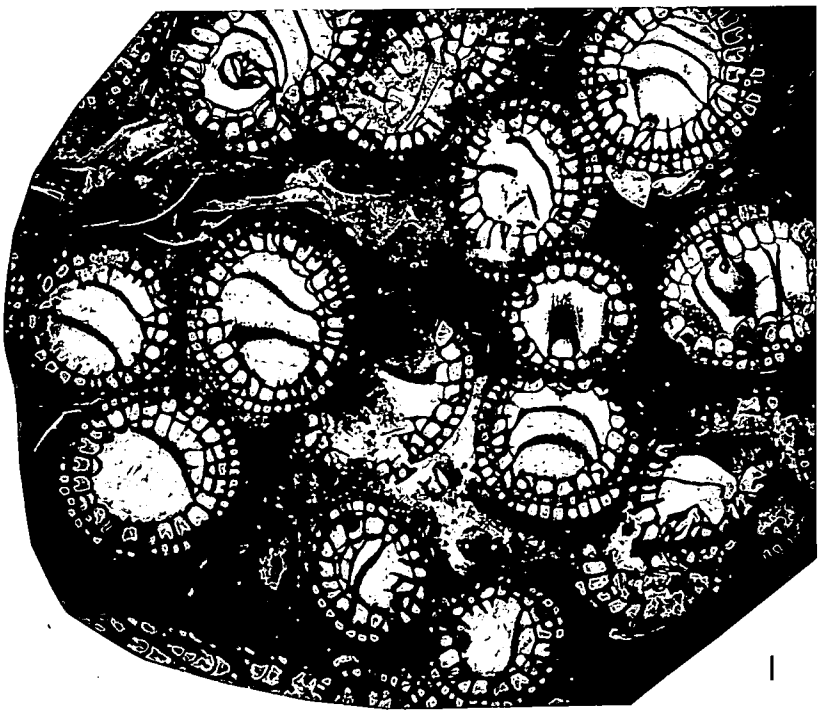
PLATE 38

Fig. 1. L.fasciculatum(Fleming). Great Limestone, Frosterley Marble Quarry, Frosterley, Weardale. No. JN 53aiii.

Fig. 2. L.fasciculatum(Fleming). Great Limestone, Catterick Moss, Stanhope, Weardale. No. JN 40aiii.

Fig. 3. L.fasciculatum(Fleming). Great Limestone, Catterick Moss, Stanhope, Weardale. No. JN 40aii.

Fig. 4. L.fasciculatum(Fleming). Great Limestone, Catterick Moss, Stanhope, Weardale. No. JN 40ai.



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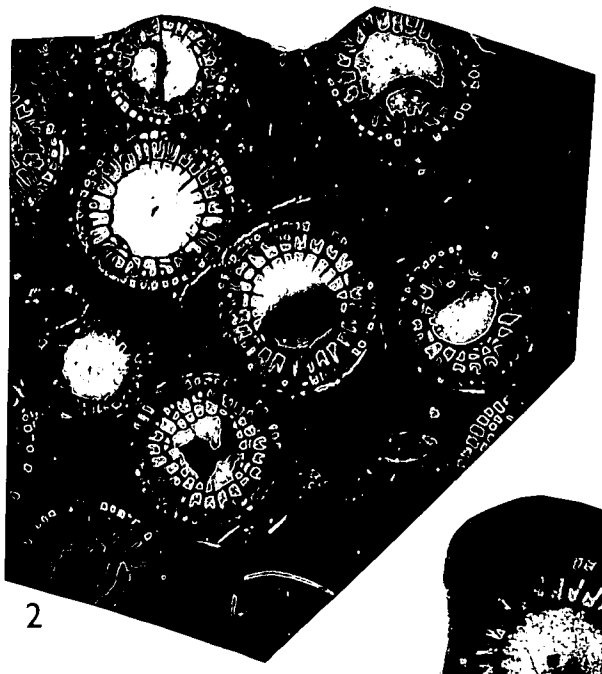

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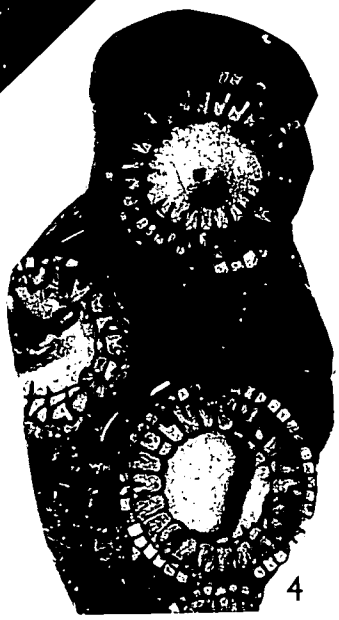

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PLATE 39

Fig. 1. L. furcatum (Hill). Lower Limestone Series, Fenwick, Scotland. No. KM T2002, Kelvingrove Museum, Glasgow. Fig'd Hill, 1940, p.185, pl.x, fig.16. Lectotype.

Fig. 2. L. furcatum (Hill). Middle Limestone, Arn Gill, Askrigg, Wensleydale. No. JN 160di.

Fig. 3. L. furcatum (Hill). Lower Limestone Series, Fenwick, Scotland. No. KM T2002, Kelvingrove Museum, Glasgow. Fig'd Hill, 1940, p.185, pl.x, fig.16. Lectotype.

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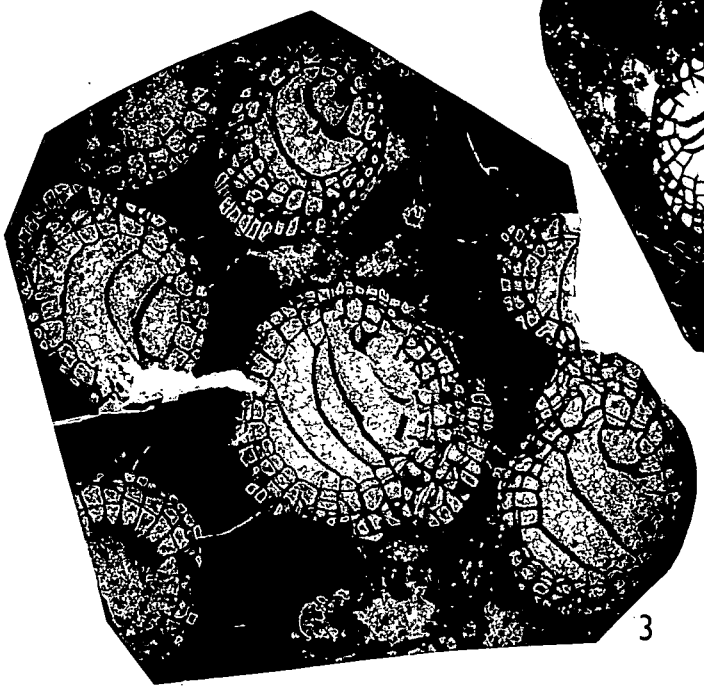

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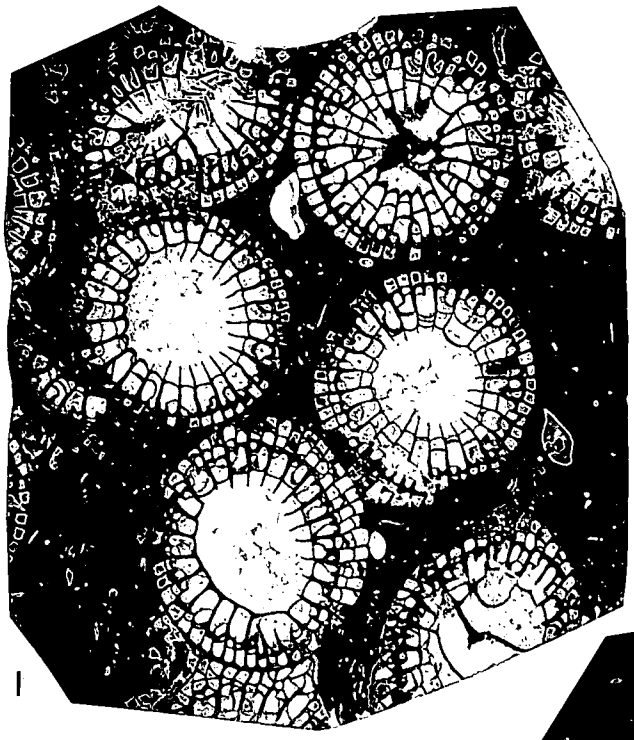
PLATE 40

Fig. 1. L.furcatum(Hill). Base of Middle Limestone, Roman Wall, Semerwater, Wensleydale. No. JN 159dviii.

Fig. 2. L.furcatum(Hill). Great Scar Limestone, Aysgarth lower falls, Aysgarth, Wensleydale. No. JN 158cii.

Fig. 3. L.furcatum(Hill). Base of Middle Limestone, Birks Gill, Swaledale. No. JN 173bii.



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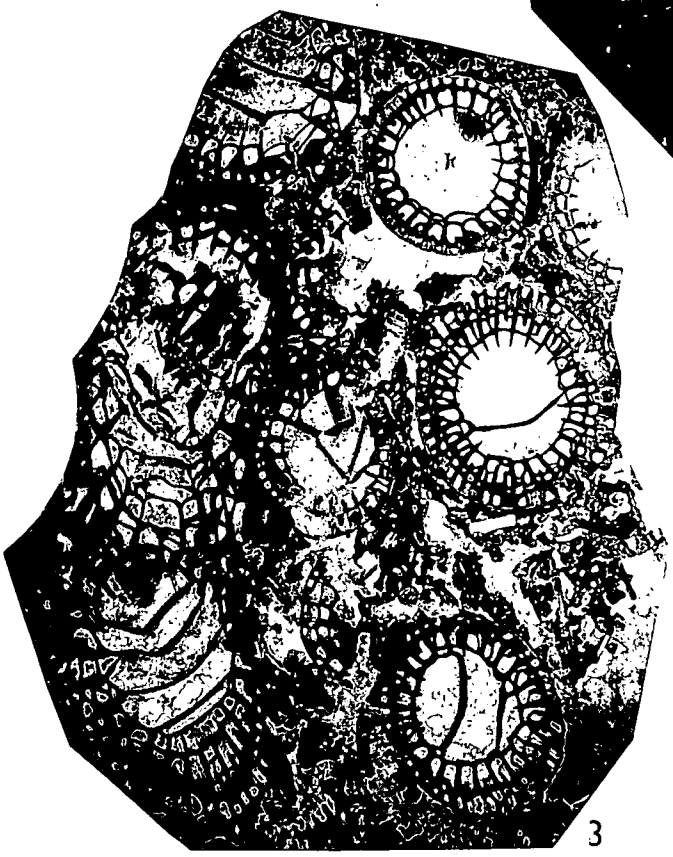

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PLATE 41

Fig. 1. *L. furcatum* (Hill). Base of Middle Limestone, Birks Gill, Swaledale. No. JN 173bi.

Fig. 2. *L. furcatum* (Hill). Base of Middle Limestone, Quarry E. of Sar Gill Gate, Askrigg, Wensleydale. No. JN 166mv.

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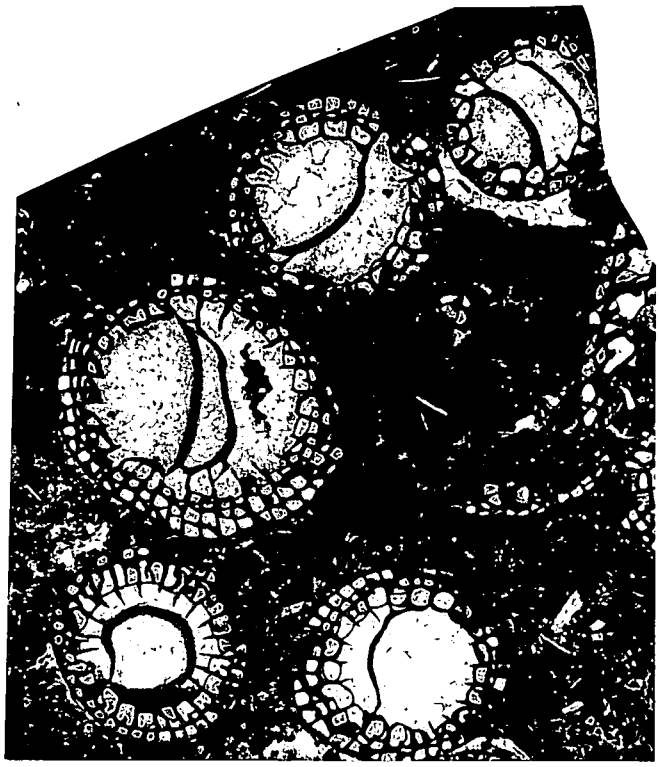

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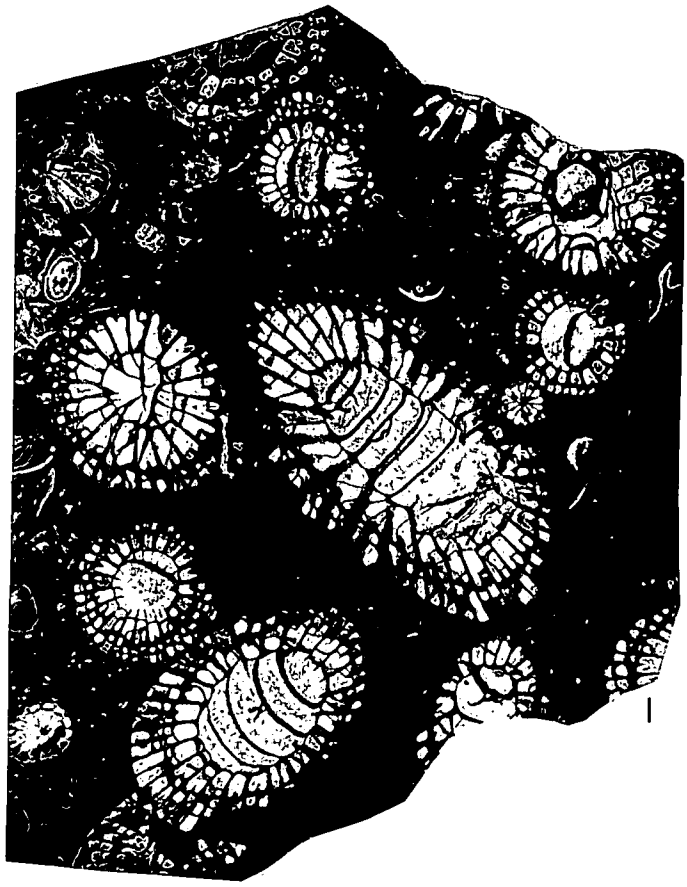
PLATE 42

Fig. 1. L. furcatum (Hill). Hardraw Scar Limestone, W. side of Semerwater, Wensleydale. No. JN 188eii.

Fig. 2. L. furcatum (Hill). Hardraw Scar Limestone, W. side of Semerwater, Wensleydale. No. JN 188ei.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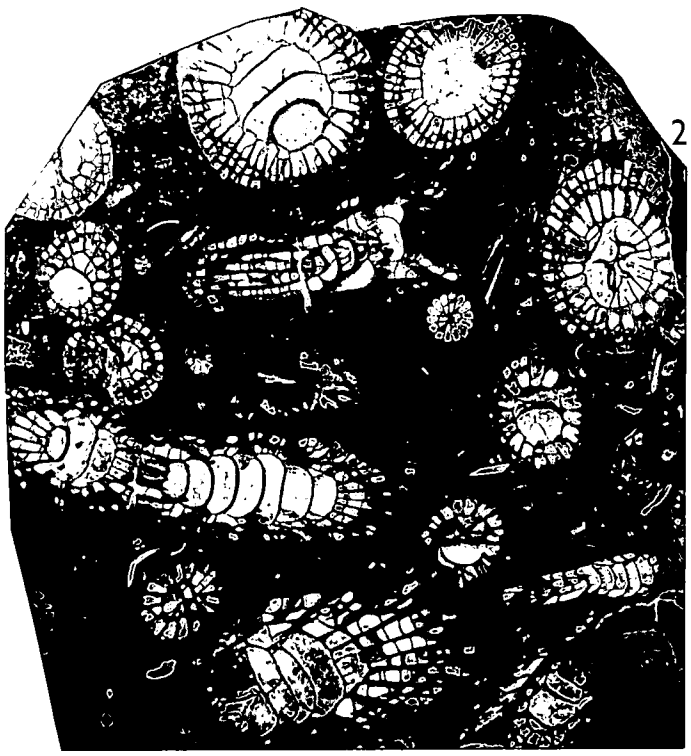
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PLATE 43

Fig. 1. L.lateseptatum(McCoy). 'Carboniferous Limestone, Corwen, Merionethshire'. No. SMA 2409e, Sedgwick Museum, Cambridge. Fig'd Smith and Lang, 1930, p.181, pl.vii, fig.1. Holotype.

Fig. 2. L.lateseptatum(McCoy). Hardraw Scar Limestone, West House, Hardraw, Wensleydale. No. JN 94aii.

Fig. 3. L.lateseptatum(McCoy). Peghorn/Smiddy Limestone, Birkett Hill, Nateby, Cumbria. No. JN 71div.

Fig. 4. L.lateseptatum(McCoy). Peghorn/Smiddy Limestone, Birkett Hill, Nateby, Cumbria. No. JN 71dix.

Fig. 5. L.lateseptatum(McCoy). Peghorn/Smiddy Limestone, Birkett Hill, Nateby, Cumbria. No. JN 71dii.

Fig. 6. L.lateseptatum(McCoy). Peghorn/Smiddy Limestone, Birkett Hill, Nateby, Cumbria. No. JN 71dxi.

Fig. 7. L.lateseptatum(McCoy). Peghorn/Smiddy Limestone, Birkett Hill, Nateby, Cumbria. No. JN 71dxii.

Fig. 8. L.lateseptatum(McCoy). Peghorn/Smiddy Limestone, Birkett Hill, Nateby, Cumbria. No. JN 71dx.


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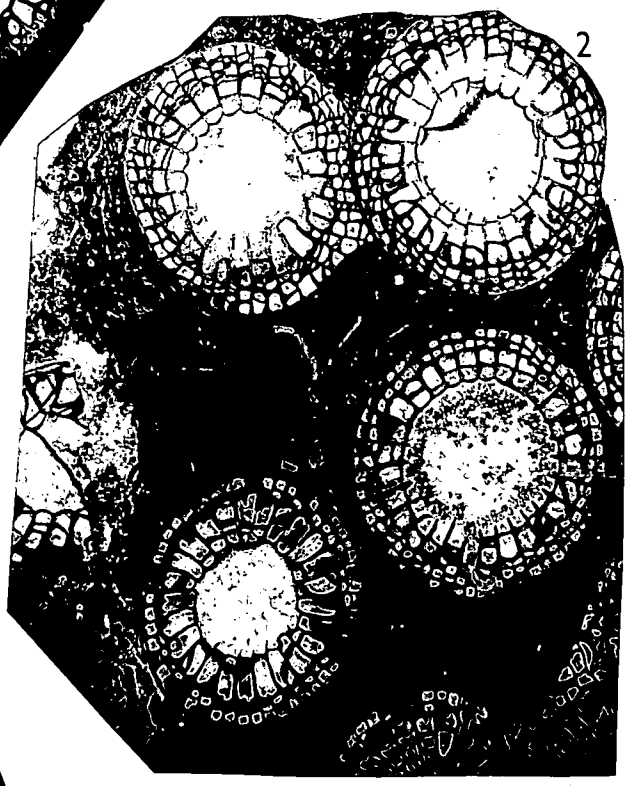
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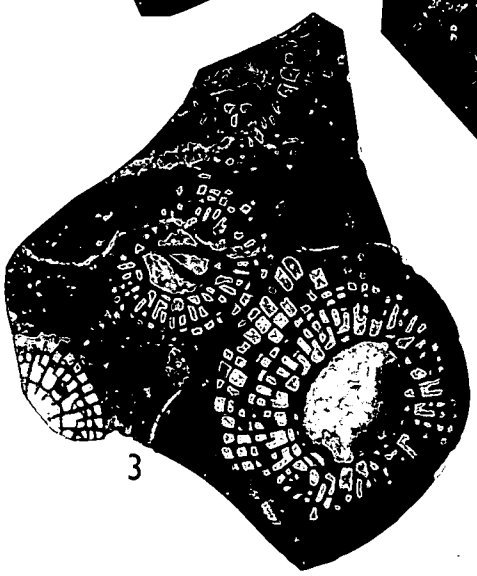
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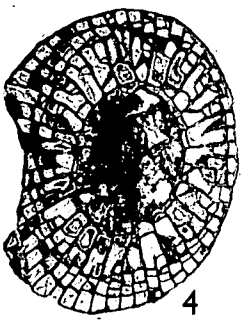
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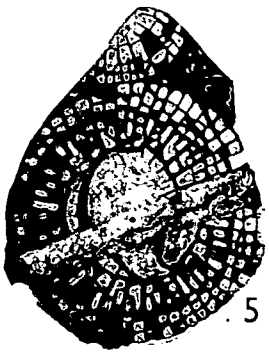
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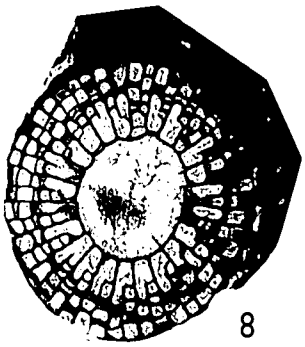
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PLATE 44

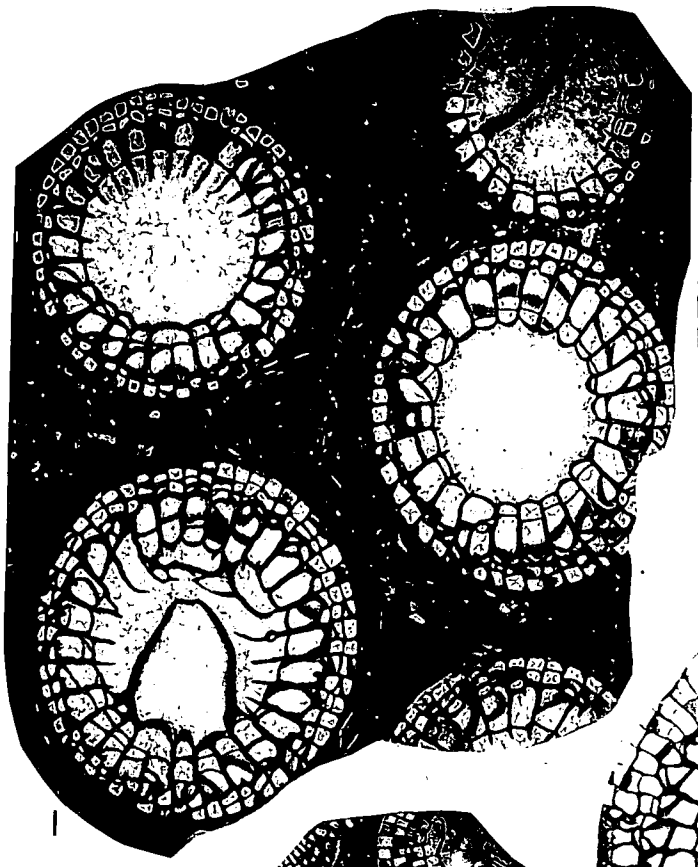
Fig. 1. L.lateseptatum(McCoy). Hardraw Scar Limestone, West House, Hardraw, Wensleydale. No. JN 94aiii.

Fig. 2. L.lateseptatum(McCoy). Great Limestone, Weardale. No. JN 182ai.

Fig. 3. L.lateseptatum(McCoy). Great Limestone, Weardale. No. JN 182aiii.

Fig. 4. L.lateseptatum(McCoy). Peghorn Limestone, Low Whiterigg, Clouds, Kirkby Stephen, Cumbria. No. JN 21di.

Fig. 5. L.lateseptatum(McCoy). Hardraw Scar Limestone, West House, Hardraw, Wensleydale. No. JN 94ai.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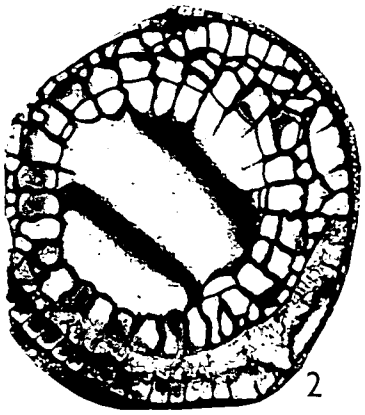
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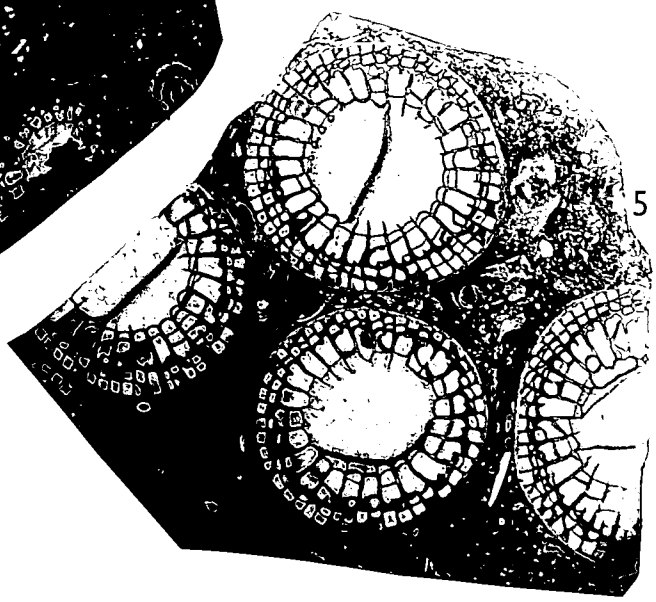
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PLATE 45

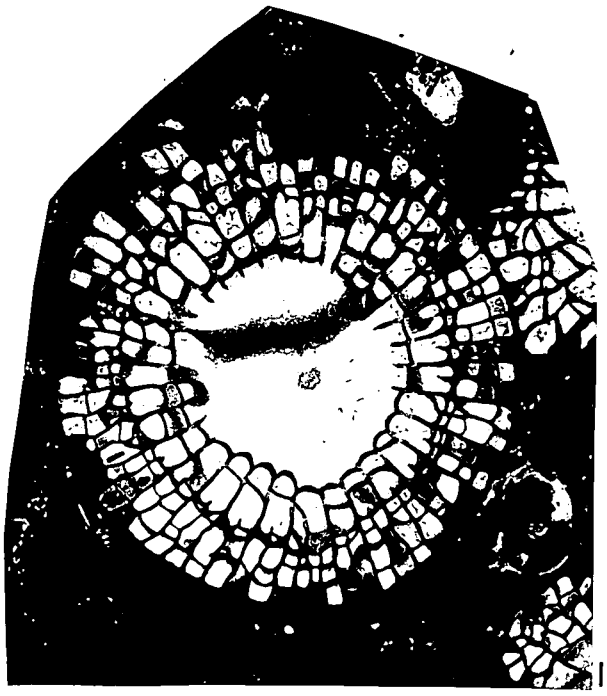
Fig. 1. L.lateseptatum(McCoy). Gayle Limestone, Mill Gill, Askrigg, Wensleydale. No. JN 132ji.

Fig. 2. L.lateseptatum(McCoy). Ash Fell Sandstone, Scandal Beck, Smardale Bridge, Kirkby Stephen, Cumbria. No. JN 9av.

Fig. 3. L.lateseptatum(McCoy). Ash Fell Sandstone, Scandal Beck, Smardale Bridge, Kirkby Stephen, Cumbria. No. JN 9ai.

Fig. 4. L.lateseptatum(McCoy). Ash Fell Sandstone, Scandal Beck, Smardale Bridge, Kirkby Stephen, Cumbria. No. JN 9aiii.

Fig. 5. L.lateseptatum(McCoy). Ash Fell Sandstone, Scandal Beck, Smardale Bridge, Kirkby Stephen, Cumbria. No. JN 9aii.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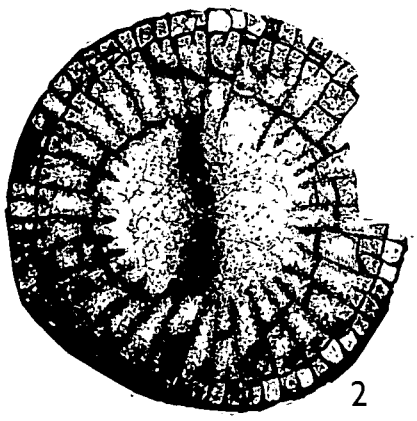
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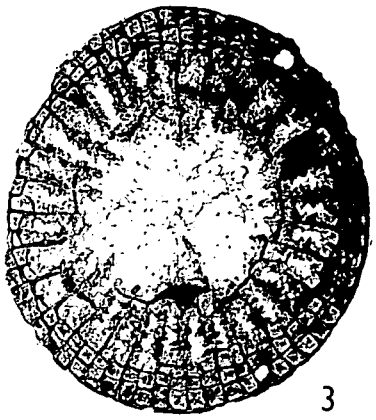
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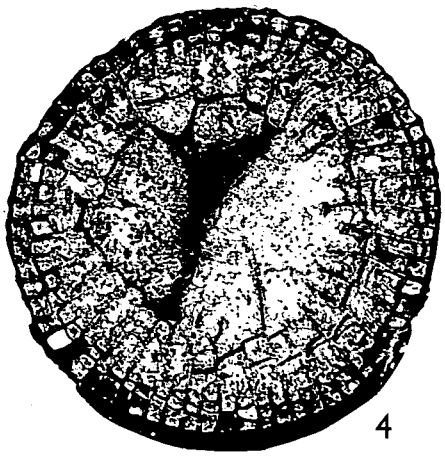
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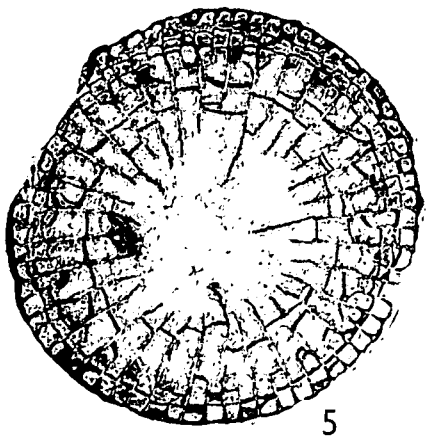
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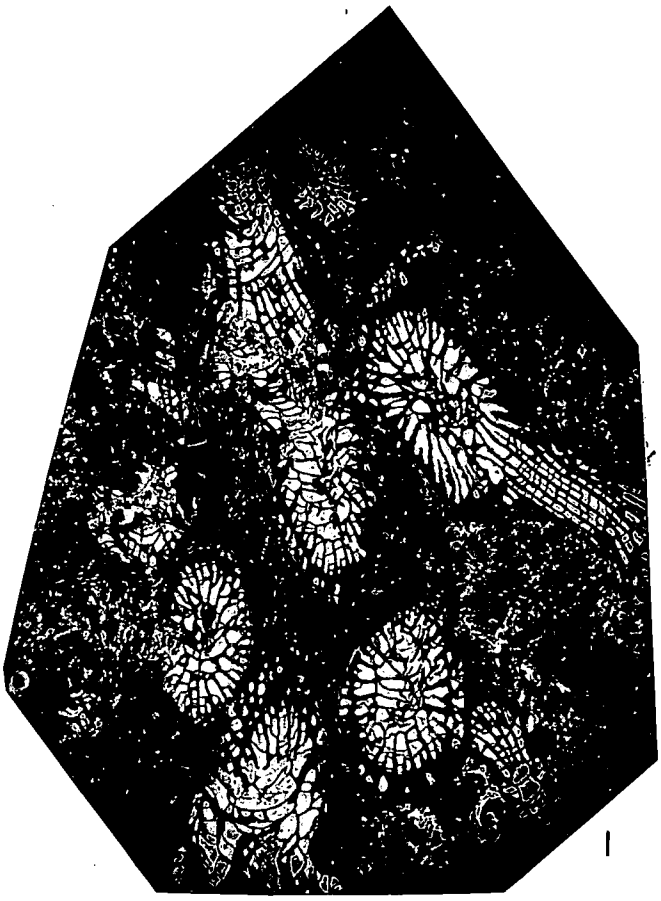
PLATE 46

Fig. 1. L.edmondsi(Smith). Top of Pothole Bed, Fourth Limestone (D2), Eskett Quarry, Frizington, Cumbria. No. BMR 25489, British Museum, London. Cit'd Smith, 1928, p.117. Holotype.

Fig. 2. L.edmondsi(Smith). Top of Pothole Bed, Fourth Limestone (D2), Eskett Quarry, Frizington, Cumbria. No. BMR 25838, British Museum, London. Fig'd Smith, 1928, pl.5, fig.4.

Fig. 3. L.edmondsi(Smith). Top of Pothole Bed, Fourth Limestone (D2), Ward Hall East Quarry, Aspatria, Cumbria. No. BMR 25840, British Museum, London. Fig'd Smith, 1928, pl.5, fig.1 & 2.



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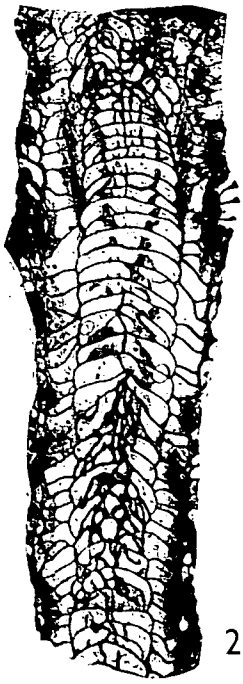

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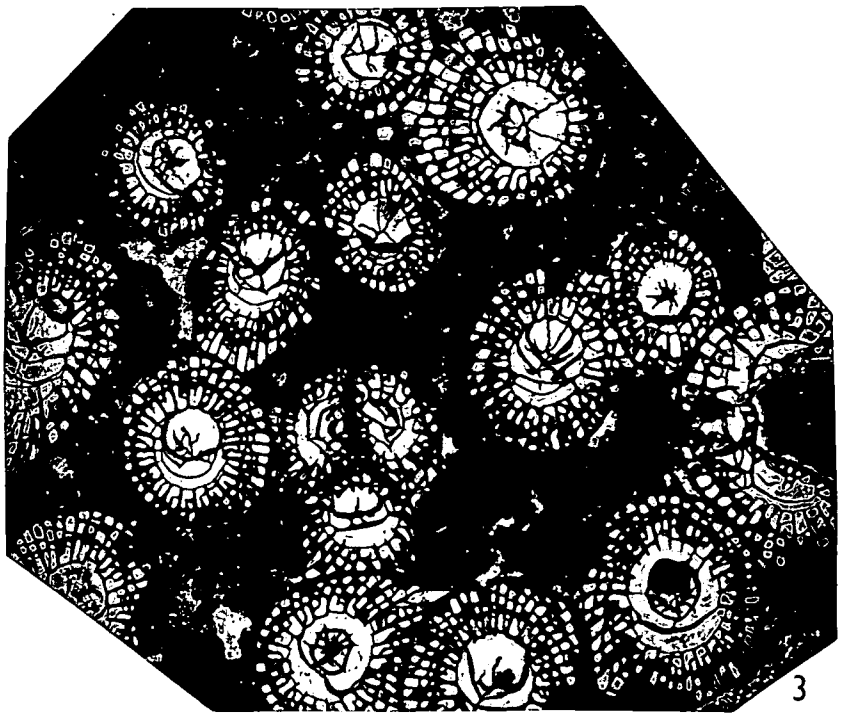

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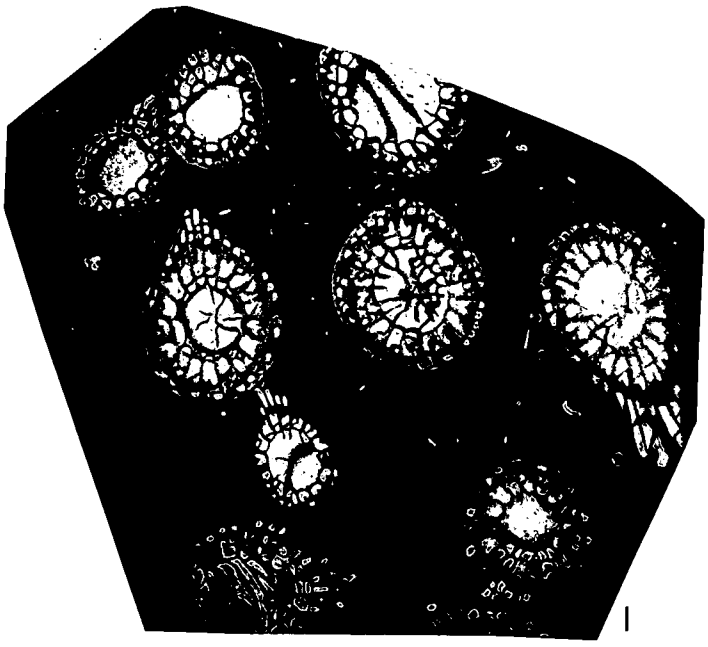
PLATE 47

Fig. 1. *L. edmondsi* (Smith). Jew Limestone, Moor House Reserve, Upper Teesdale. No. JN 195aii.

Fig. 2. *L. edmondsi* (Smith). Jew Limestone, Moor House Reserve, Upper Teesdale. No. JN 195ai.



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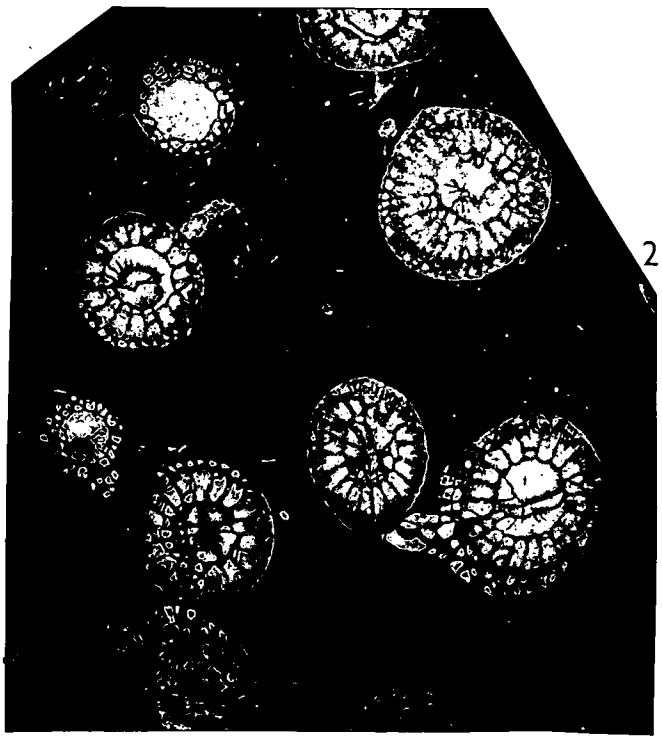

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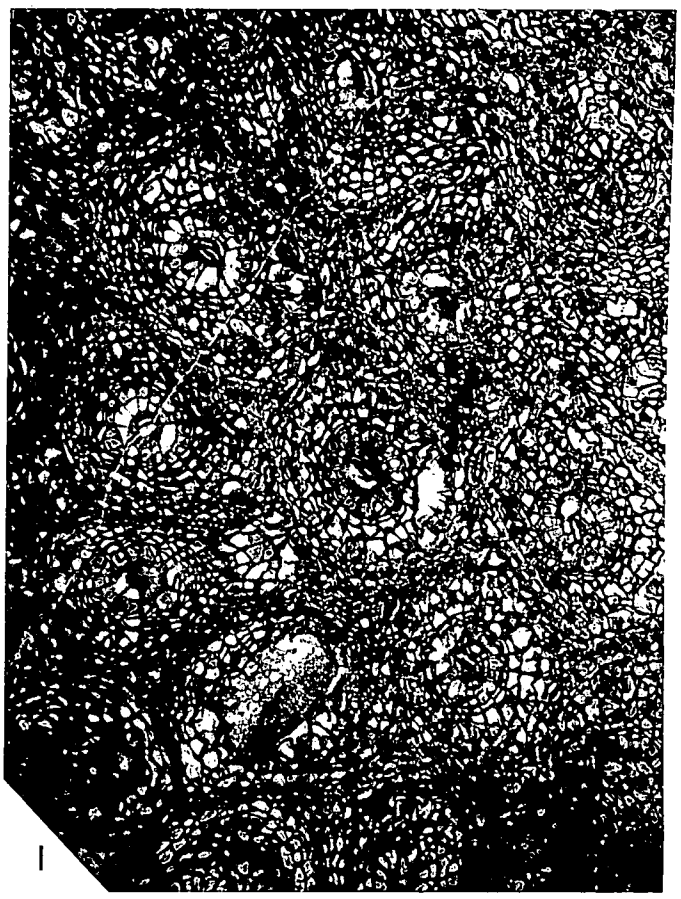
PLATE 48

Fig. 1. O.ensifer(Edwards and Haime). Carboniferous Limestone, ? Bristol. No. BMR 17084, British Museum, London. Fig'd Smith, 1916, p.301, pl.xxiv, fig.5. Neotype.

Fig. 2. O.phillipsi(McCoy). 'Carboniferous Limestone, D2, Corwen, N.Wales. No. SMA 2188, Sedgwick Museum, Cambridge. Fig'd Smith, 1916, p.298, pl.2, fig.2. Holotype.



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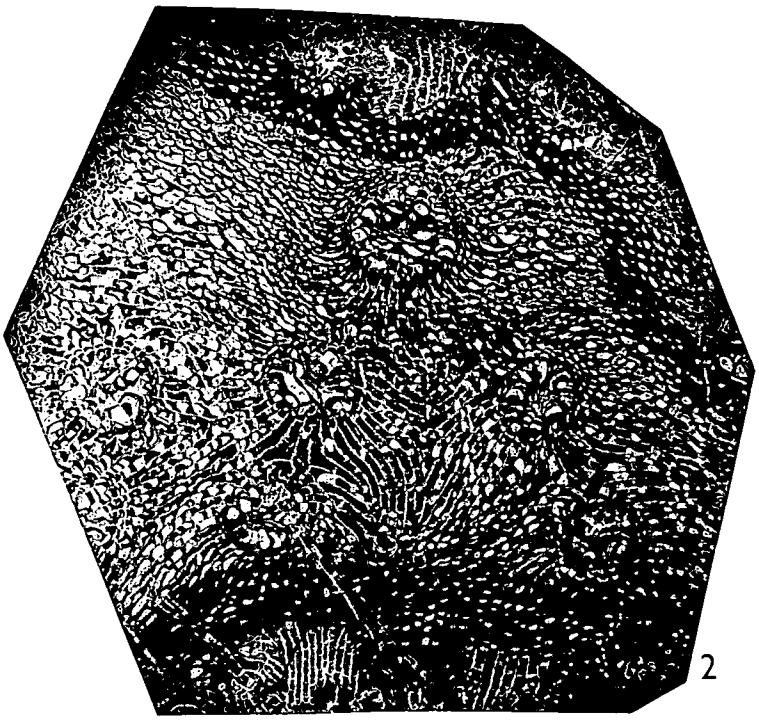

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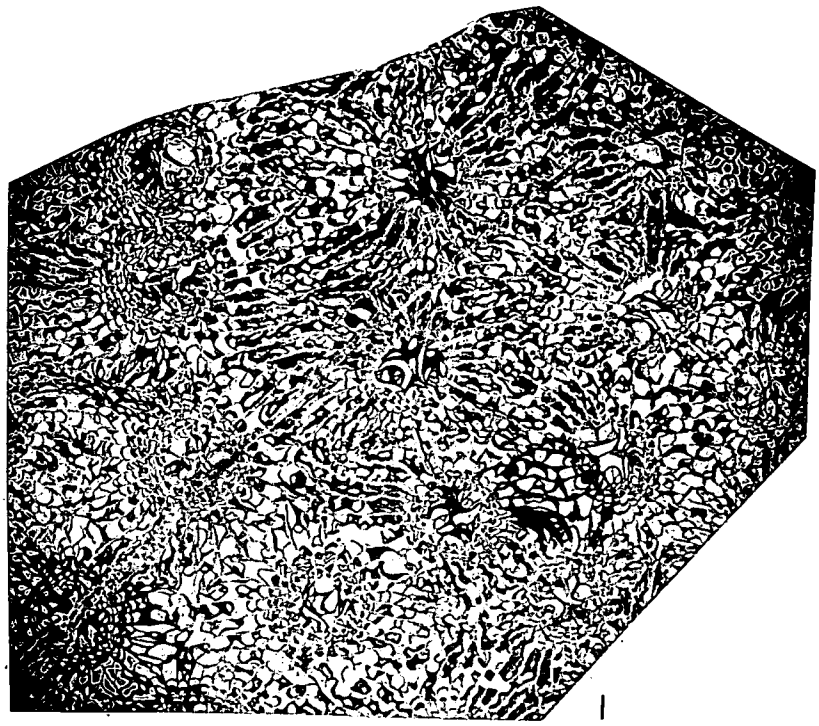
PLATE 49

Fig. 1. O.phillipsi(McCoy). 'Carboniferous Limestone, D2, Corwen, N.Wales'. No. PF 2710, I.G.S. Collection, Leeds. Fig'd Hudson, 1929, p.444, pl.4, fig.1b.

Fig. 2. O.tuberosa(McCoy). 'Carboniferous Limestone, Derbyshire'. No. SMA 2187, Sedgwick Museum, Cambridge. Fig'd Smith, 1916, p.300, pl.23, fig.5, Hudson, 1929, p.447, pl.4, fig.3. Holotype.



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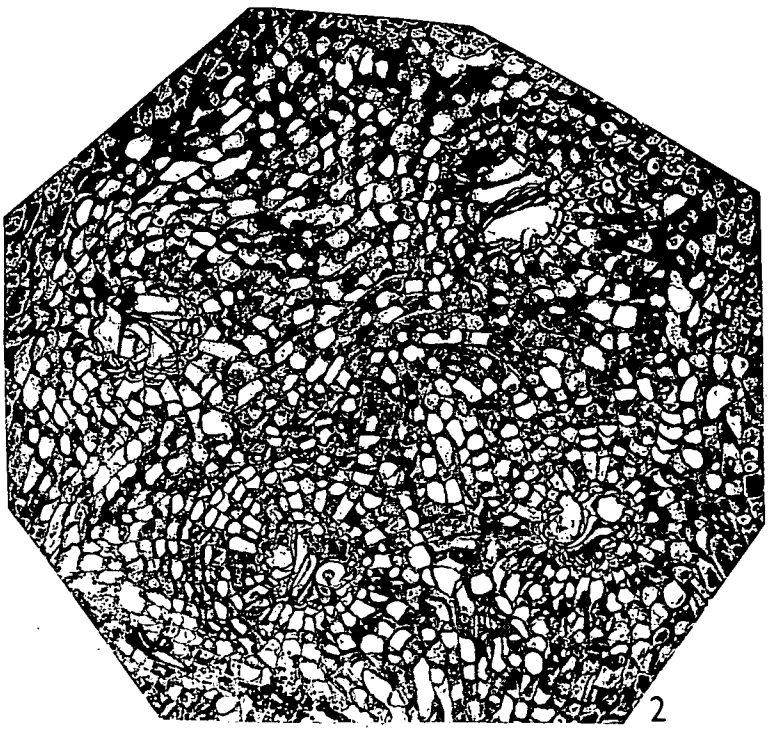

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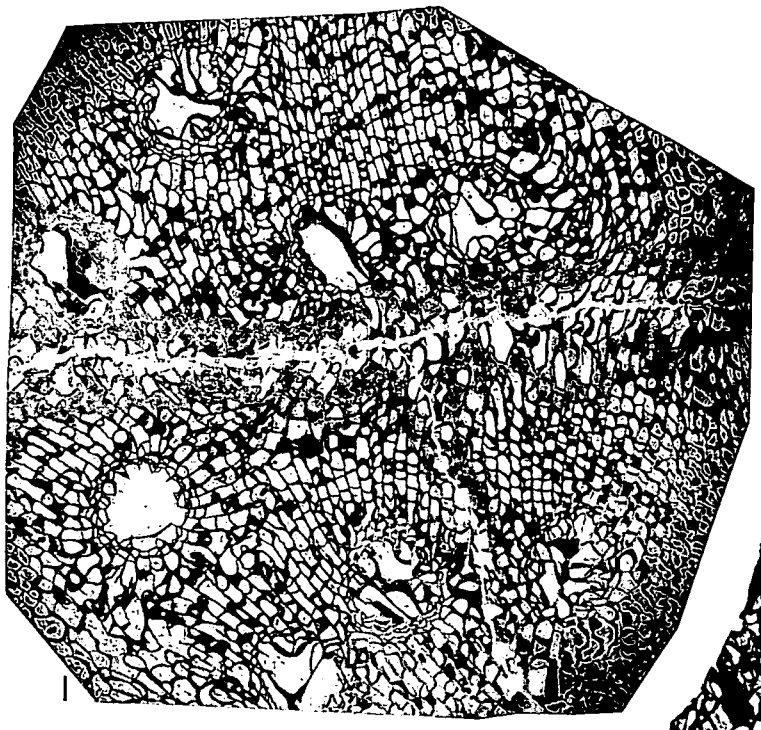
PLATE 50

Fig. 1. O. tuberosa (McCoy). Holotype of O. edmondsi var. laciniosa Hudson. Upper D2, Flintshire. No. PF 2704, I.G.S. Collection, Leeds.

Fig. 2. O. edmondsi Hudson. Top of Potholes Limestone, Fourth Limestone, Clints Quarry, S.E. of Bigrigg, Cumbria. No. BMR 26481, British Museum, London. Fig'd Hudson, 1929, p. 446, pl. 3, fig. 1b. Holotype.

Fig. 3. O. tuberosa (McCoy). Holotype of O. edmondsi var. laciniosa Hudson. Upper D2, Flintshire. No. PF 2706, I.G.S. Collection, Leeds.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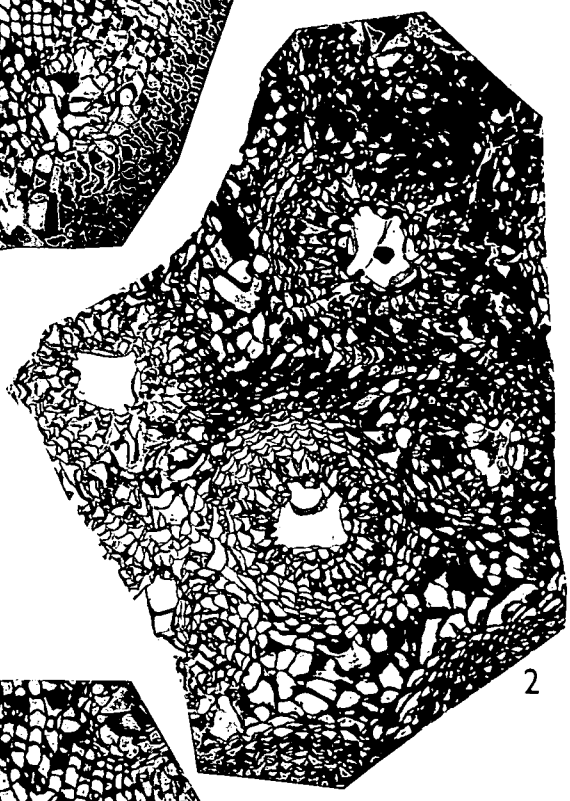
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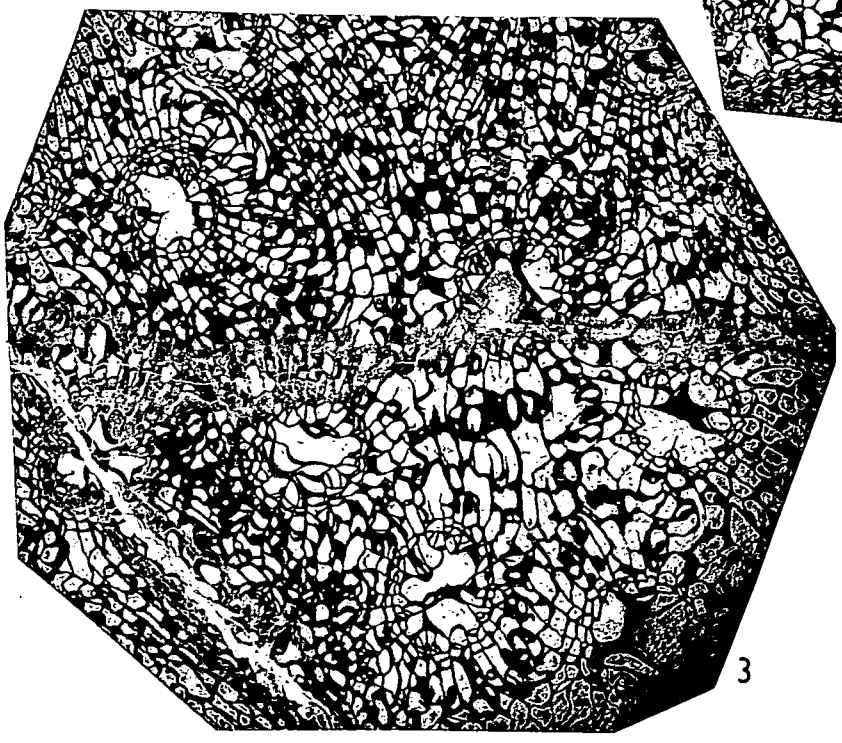
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PLATE 51

Fig. 1. O.p.placenta(McCoy). 'Carboniferous Limestone, Derbyshire'. No. SMA 2370c, Sedgwick Museum, Cambridge. Holotype.

Fig. 2. O.p.placenta(McCoy). Paratype of O.garwoodi Hudson. 'Carboniferous Limestone, Sar Gill Beck, Litherskew, Yorkshire'. No. PF 2718, I.G.S. Collection, Leeds. Cit'd Hudson, 1929, p.449.

Fig. 3. O.p.placenta(McCoy). Middle Limestone, Dry Park Gill, Whernside, Kettlewell, Wharfedale. No. JN 172cvi.

Fig. 4. O.p.placenta(McCoy). Upper Monsal Dale Beds, small valley off Intake Dale, Derbyshire. No. JN 181fi.

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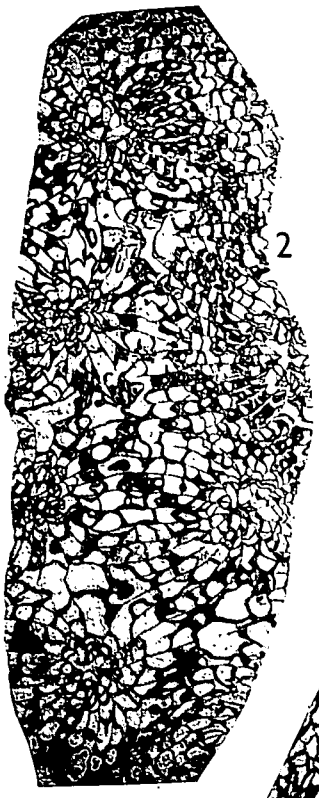

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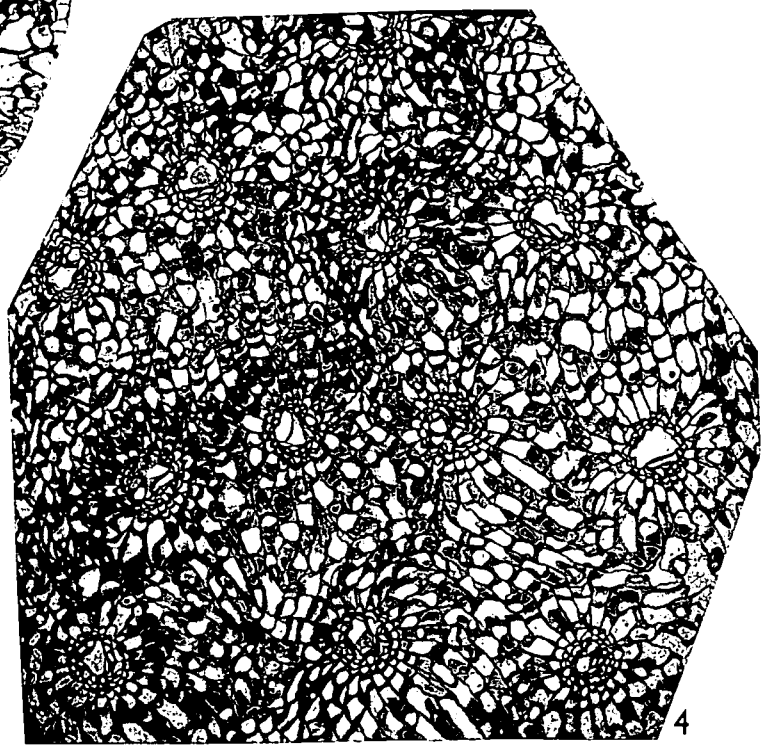

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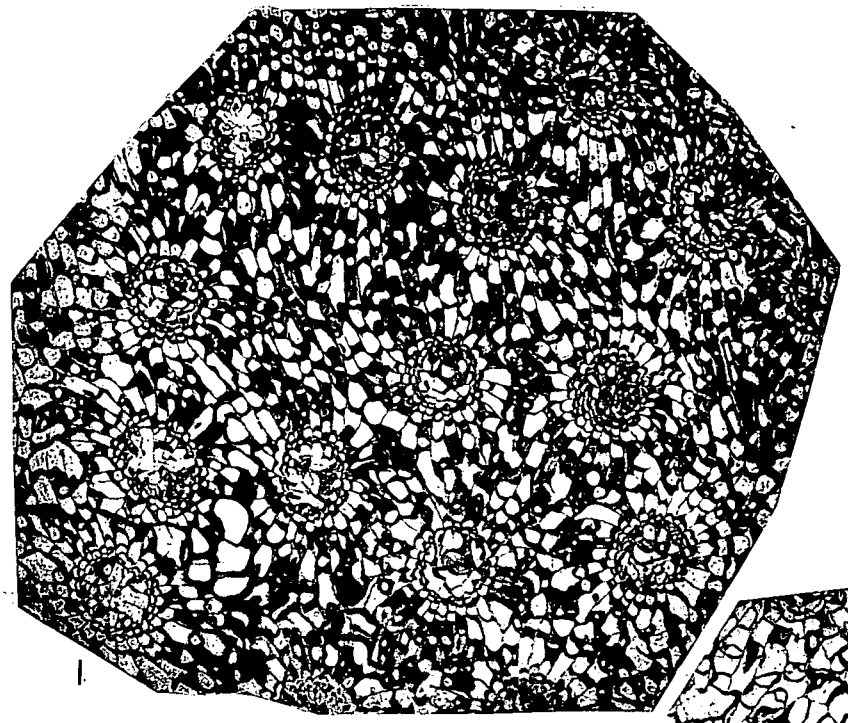
PLATE 52

Fig. 1. O.p.placenta(McCoy). Tyne Bottom Limestone, Greenholes, Moor House Reserve, Upper Teesdale. No. JN 136aiii.

Fig. 2. O.p.placenta(McCoy). Tyne Bottom Limestone, Moor House Reserve, Upper Teesdale. No. JN 137ai.

Fig. 3. O.p.placenta(McCoy). Tyne Bottom Limestone, Greenholes, Moor House Reserve, Upper Teesdale. No. JN 136aiv.



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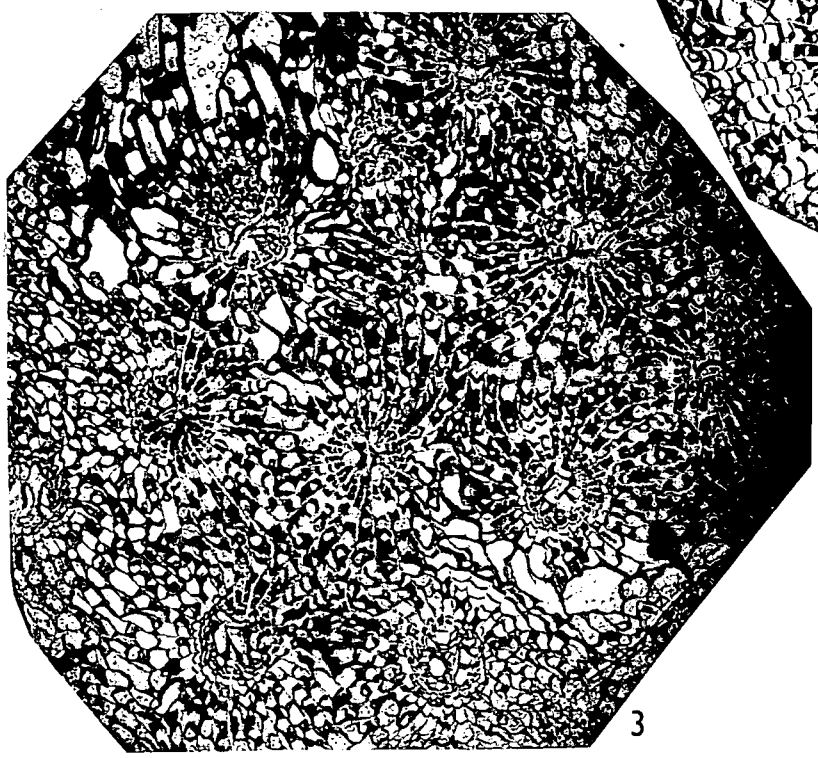

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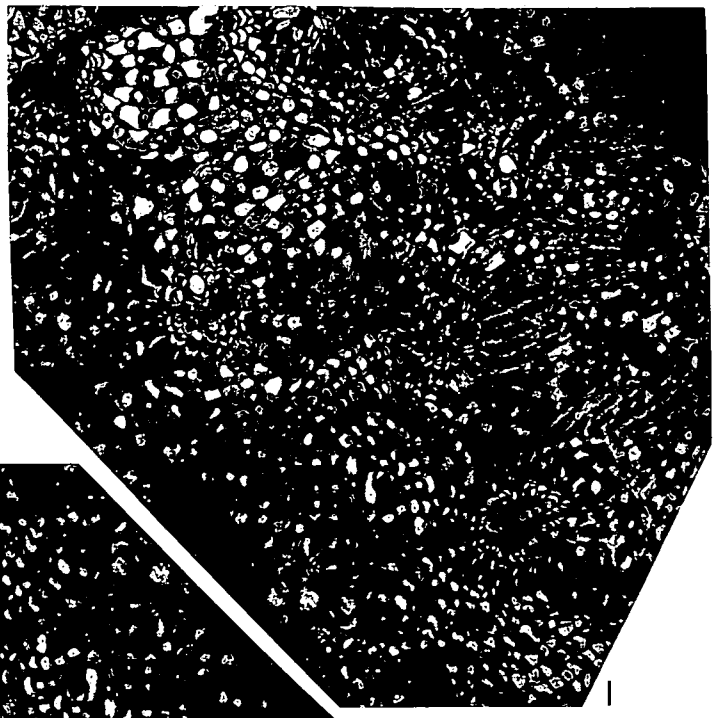
PLATE 53

Figs. 1-2. O. p. placenta (McCoy). Base of Middle Limestone, Quarry E. of Sar Gill Gate, Askrigg, Wensleydale. No. JN 166bi.

Fig. 3. O. p. placenta (McCoy). Base of Middle Limestone, Quarry E. of Sar Gill Gate, Askrigg, Wensleydale. No. JN 166bv.



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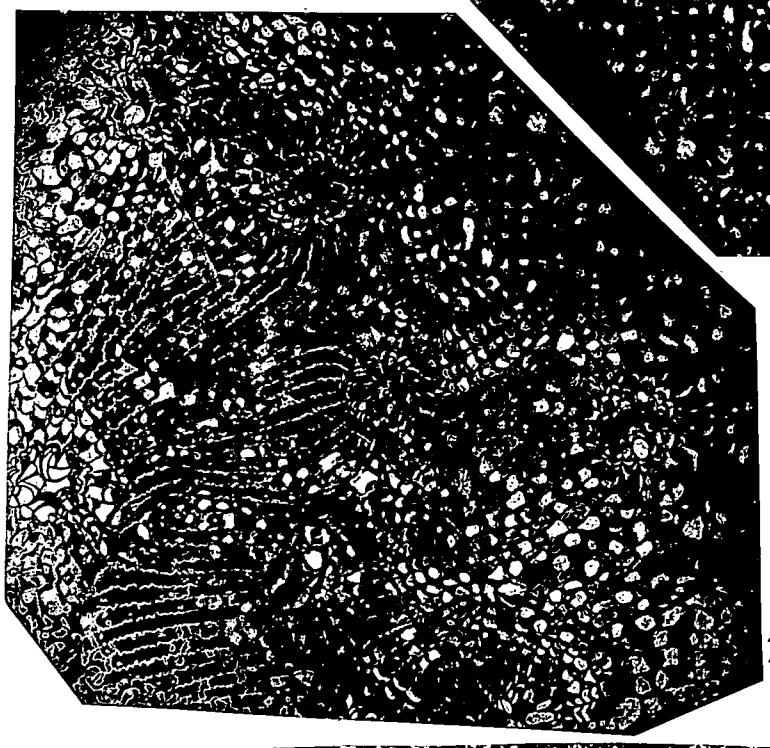

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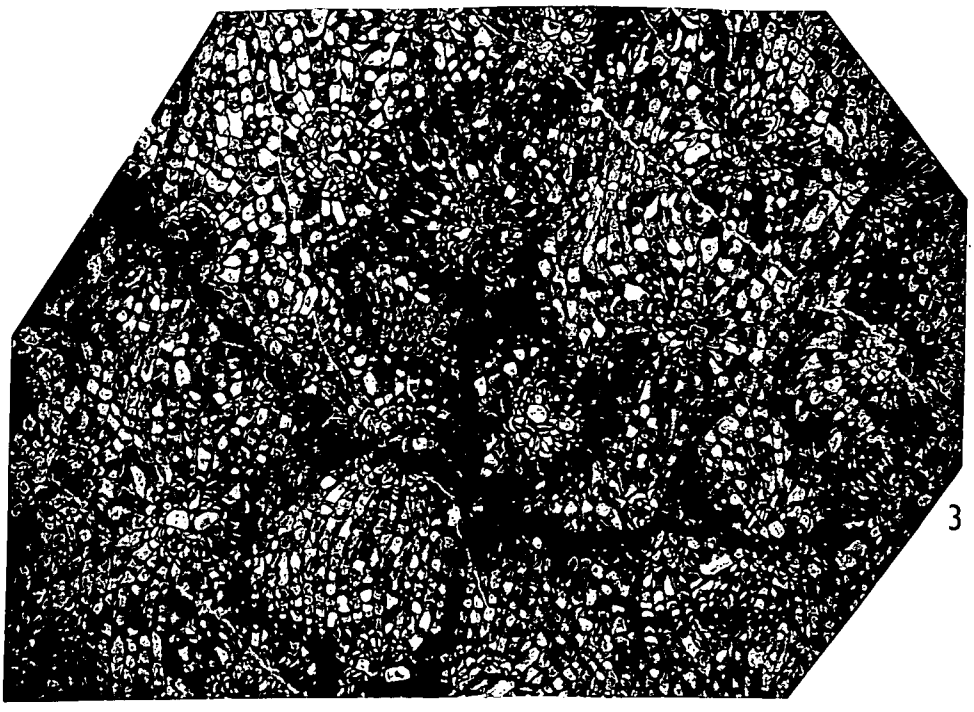

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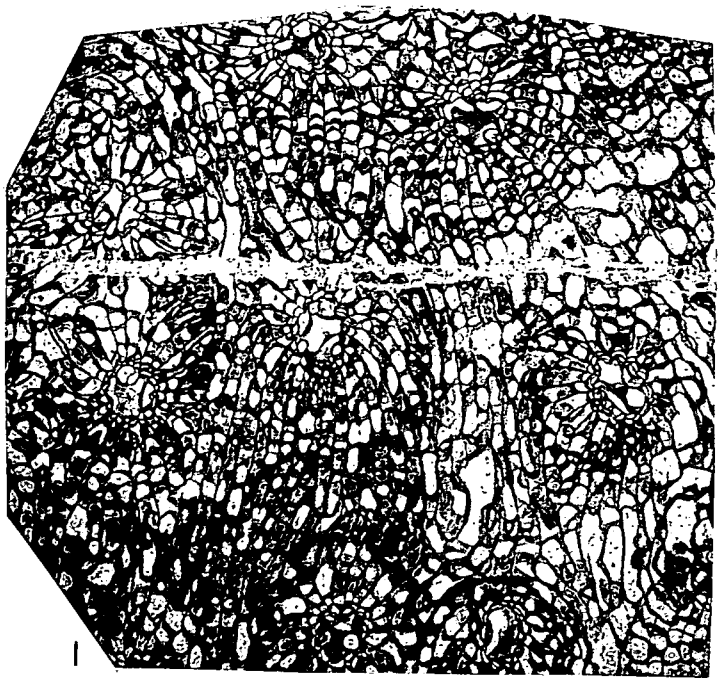
PLATE 54

Fig. 1. O.p.placenta(McCoy). Base of Middle Limestone, The Mount, Wensley, Wensleydale. No. JN 179di.

Fig. 2. O.p.placenta(McCoy). Single Post Limestone, Weardale. No. JN 131ai.



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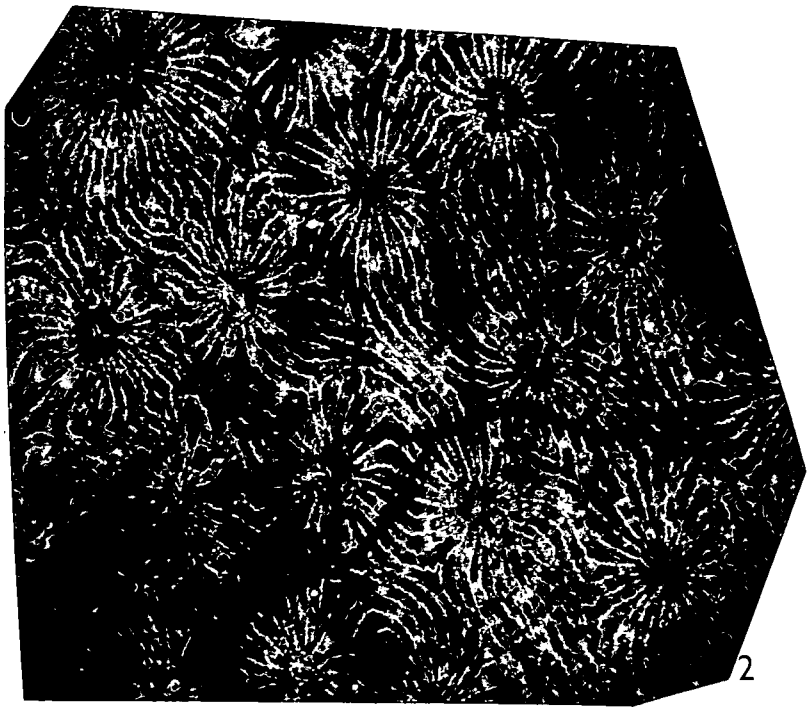

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PLATE 55

Fig. 1. O.p.garwoodi Hudson. Middle Limestone, Quarry E. of Sar Gill Gate, Askrigg, Wensleydale. No. BMR 26498, British Museum, London. Fig'd Hudson, 1929, p.449, pl.2, fig.1b. Holotype.

Fig. 2. O.p.garwoodi Hudson. Tyne Bottom Limestone, Moor House Reserve, Upper Teesdale. No. JN 118ai.

Fig. 3. O.p.garwoodi Hudson. Simonstone Limestone, Arn Gill, Askrigg, Wensleydale. No. JN 146aii.

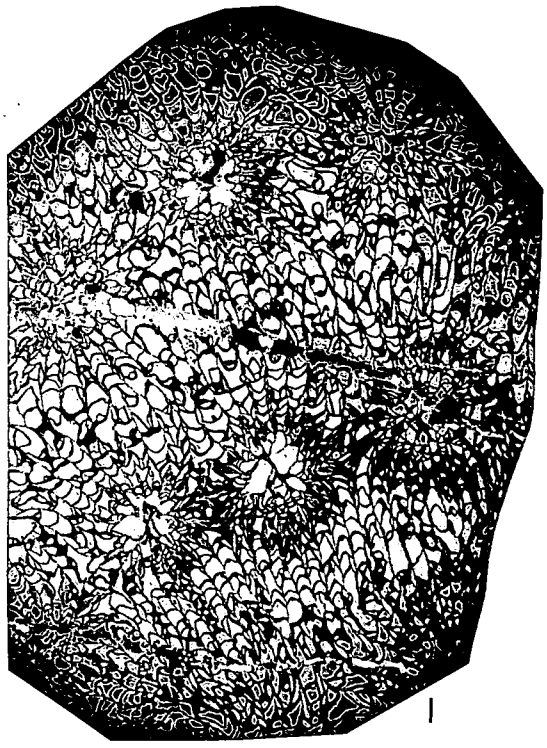
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PLATE 56

Fig. 1. *O.p.garwoodi* Hudson. Middle Limestone, Mill Gill, Askrigg, Wensleydale. No. JN 140gii.

Fig. 2. *O.p.garwoodi* Hudson. Middle Limestone, Mill Gill, Askrigg, Wensleydale. No. JN 140gi.

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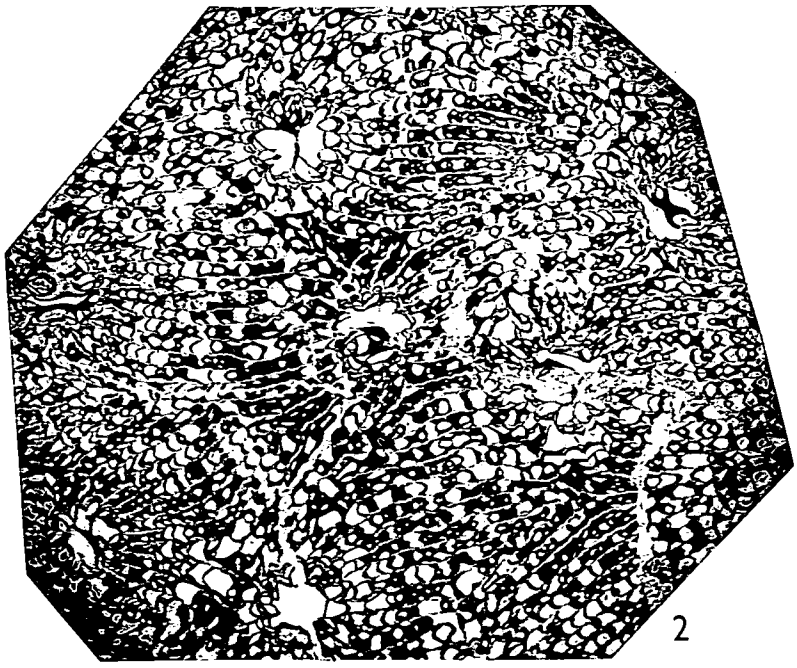

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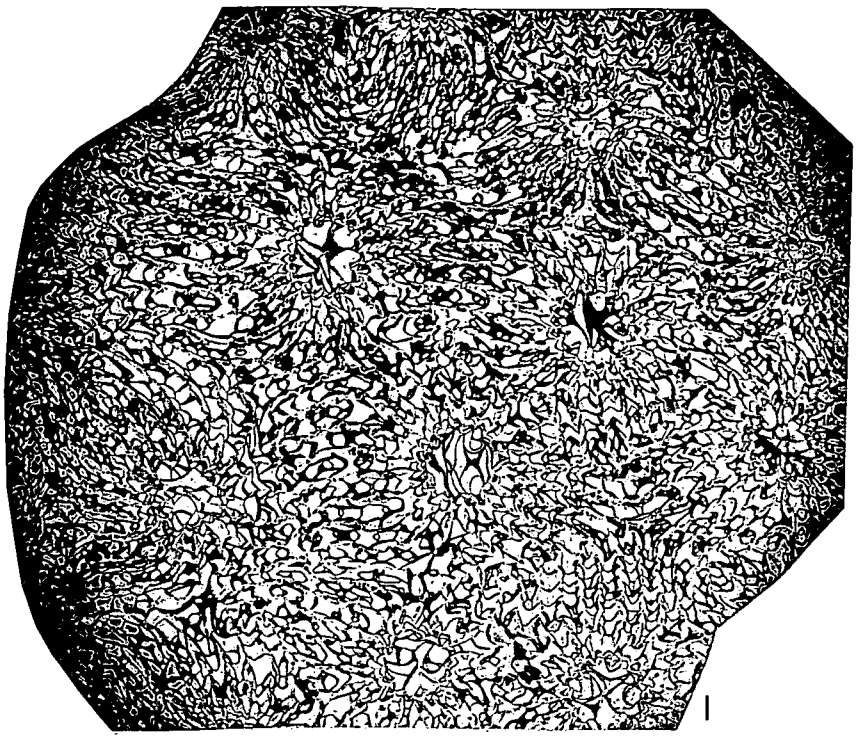
PLATE 57

Fig. 1. O.sera sp.nov. Fourth Limestone, 'junceum' bed, Broughton Craggs Quarries, N.W. of Papcastle Railway Station, Great Broughton, Cumbria. No. BMR 26510, British Museum, London. Fig'd Hudson, 1929, p.450, pl.2, fig.3. Holotype.

Fig. 2. O.sera sp.nov. Base of Middle Limestone, Crag Sike, Swaledale. No. JN 174biii.



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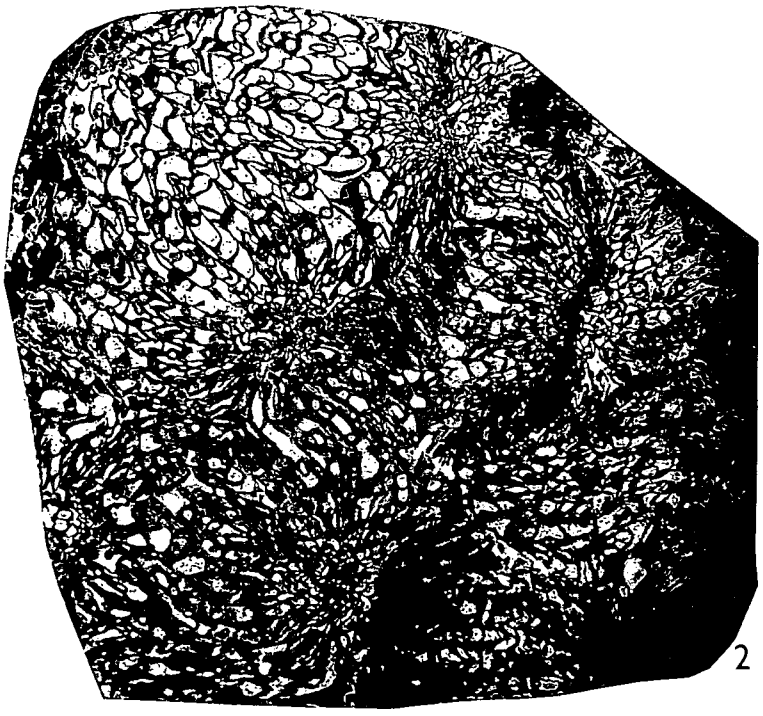

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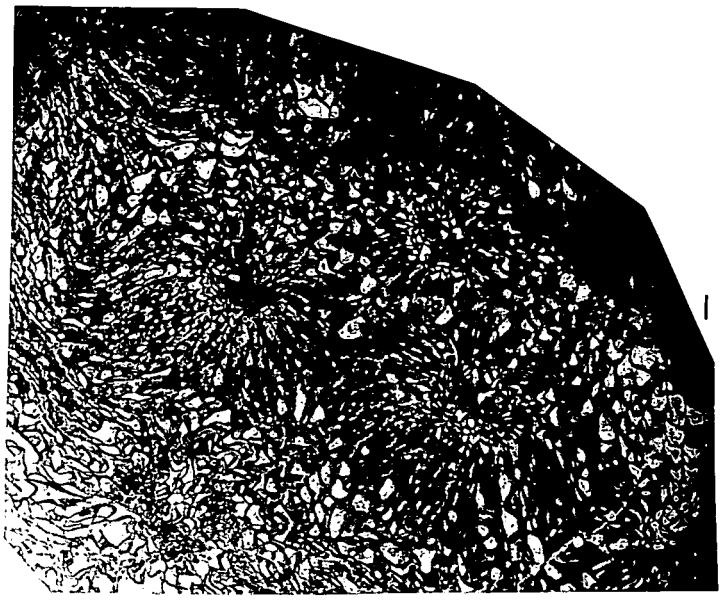
PLATE 58

Fig. 1. *O. sera sp. nov.* Base of Middle Limestone, Crag Sike, Swaledale. No. JN 174bii.

Fig. 2. *O. sera sp. nov.* Base of Middle Limestone, Crag Sike, Swaledale. No. JN 174bi.



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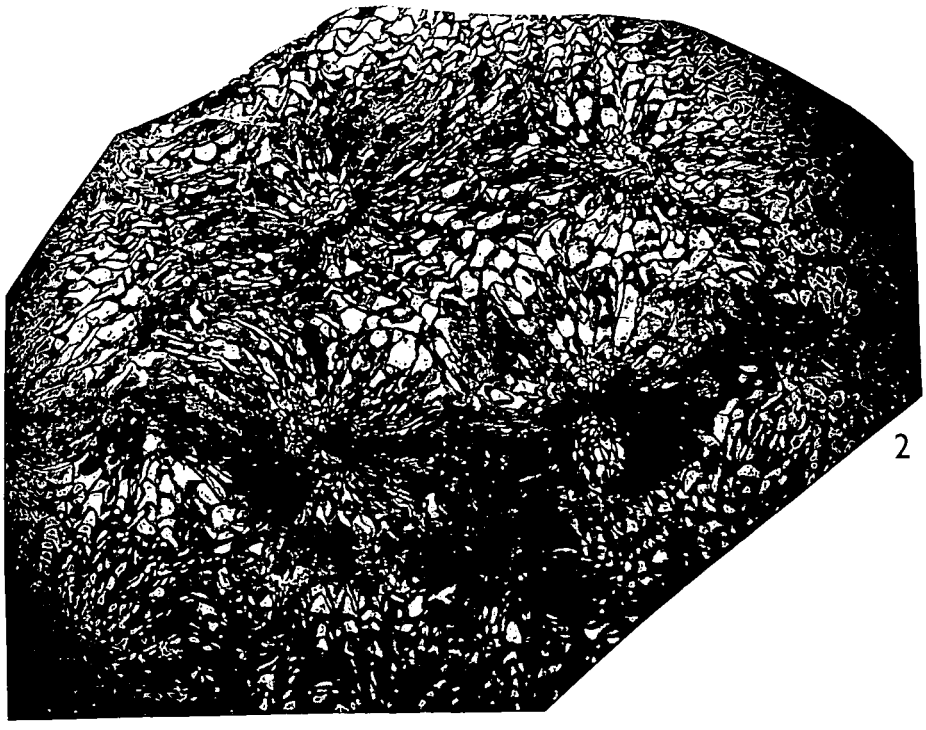

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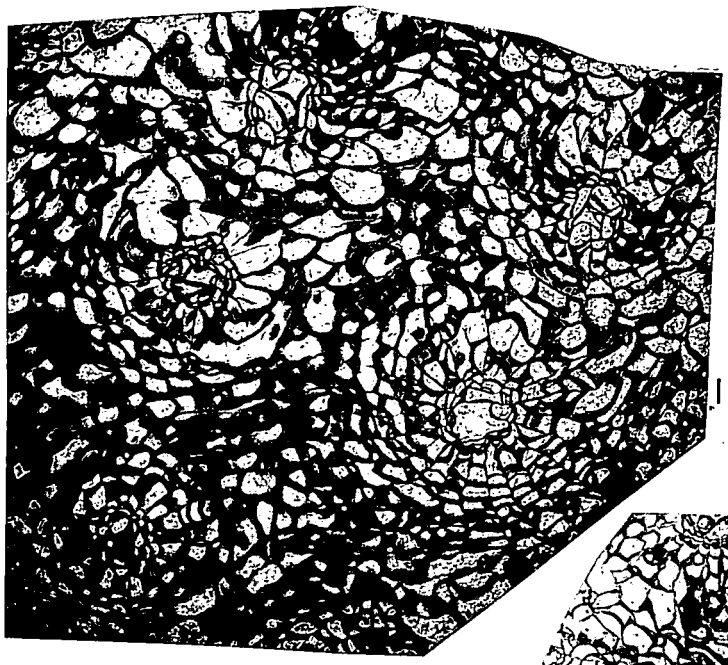
PLATE 59

Fig. 1. *O.rete* Hudson. Middle Limestone, Whernside Pasture, Great Whernside, Kettlewell, Yorkshire. No. BMR 26496, British Museum, London. Holotype.

Fig. 2. *O.rete* Hudson. Middle Limestone, Nidd Valley, Lofthouse, Yorkshire. No. JN 121ai.

Fig. 3. *O.rete* Hudson. Base of Middle Limestone, The Mount, Wensley, Wensleydale. No. JN 179hi.



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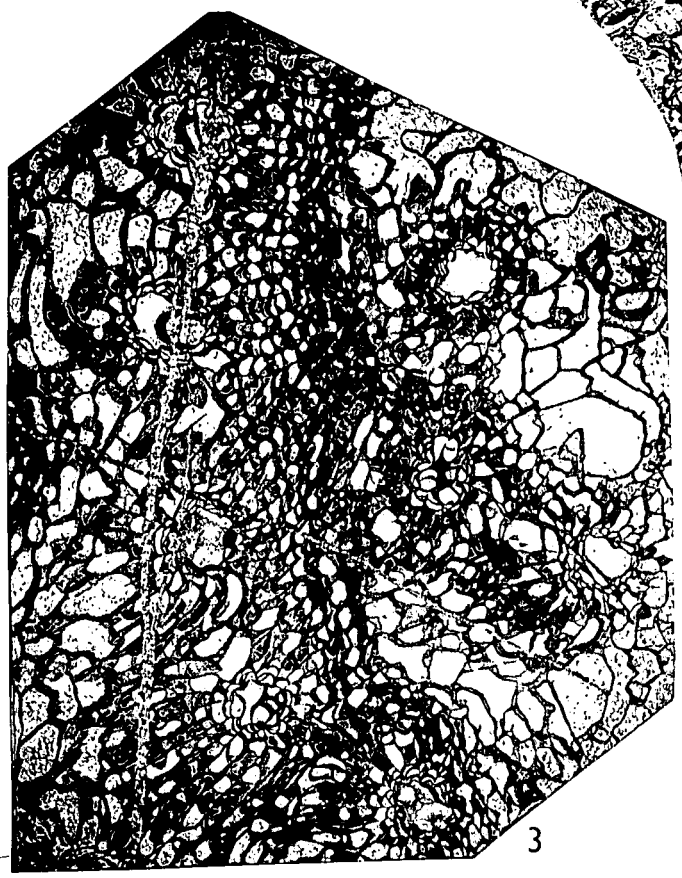

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PLATE 60

Fig. 1. O.rete Hudson. Middle Limestone, near lead mine, Whernside Pasture, Great Whernside, Kettlewell, Wharfedale. No. JN 170aiii.

Fig. 2. O.rete Hudson. Middle Limestone, Nidd Valley, Lofthouse, Yorkshire. No. JN 121aii.

Fig. 3. O.rete Hudson. Base of Middle Limestone, The Mount, Wensley, Wensleydale. No. JN 179ai.

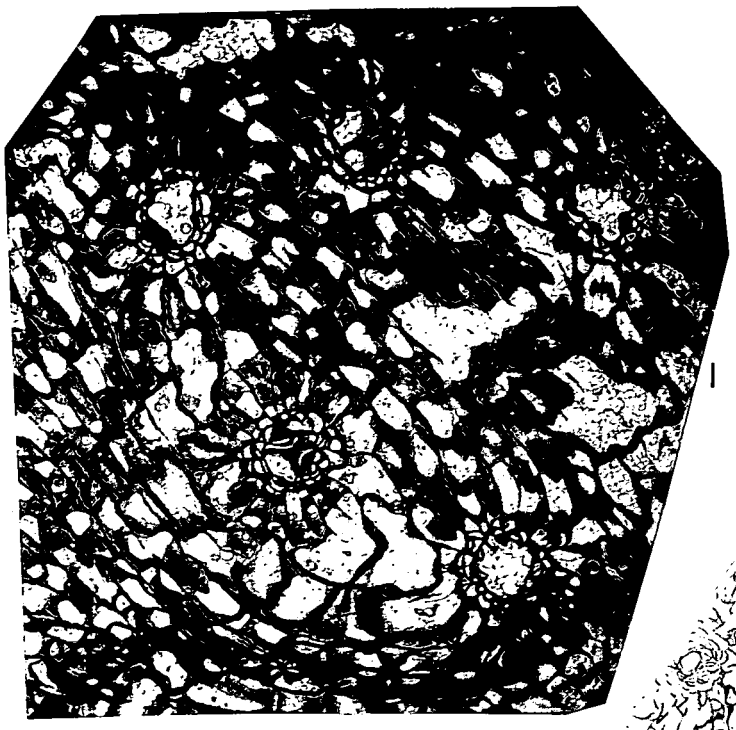

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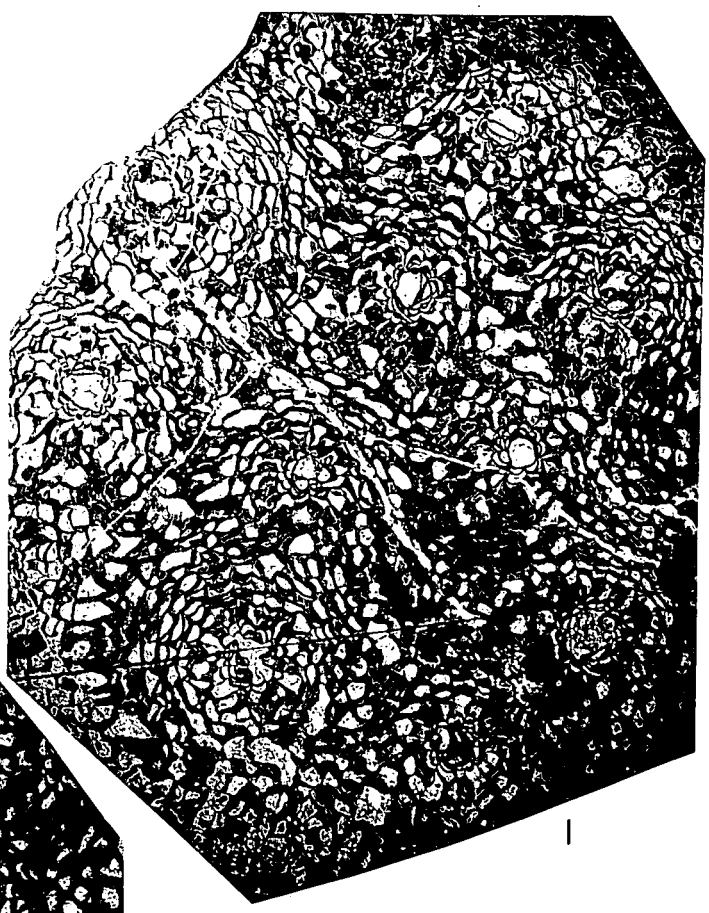
PLATE 61

Fig. 1. O.rete Hudson. Base of Middle Limestone, West Burton, Wensleydale. No. JN 178fiv.

Fig. 2. O.rete Hudson. Base of Middle Limestone, The Mount, Wensley, Wensleydale. No. JN 179ei.

Fig. 3. O.rete Hudson. Base of Middle Limestone, The Mount, Wensley, Wensleydale. No. JN 179eii.



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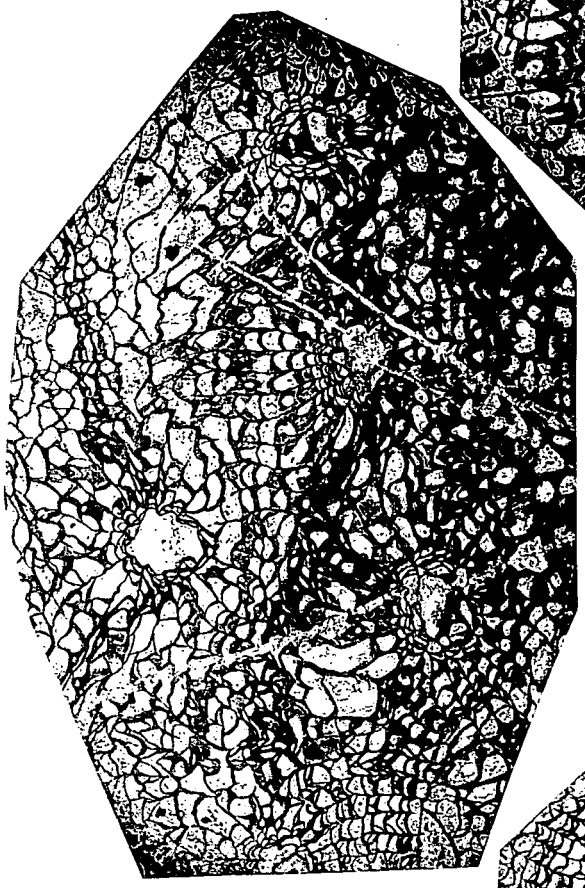

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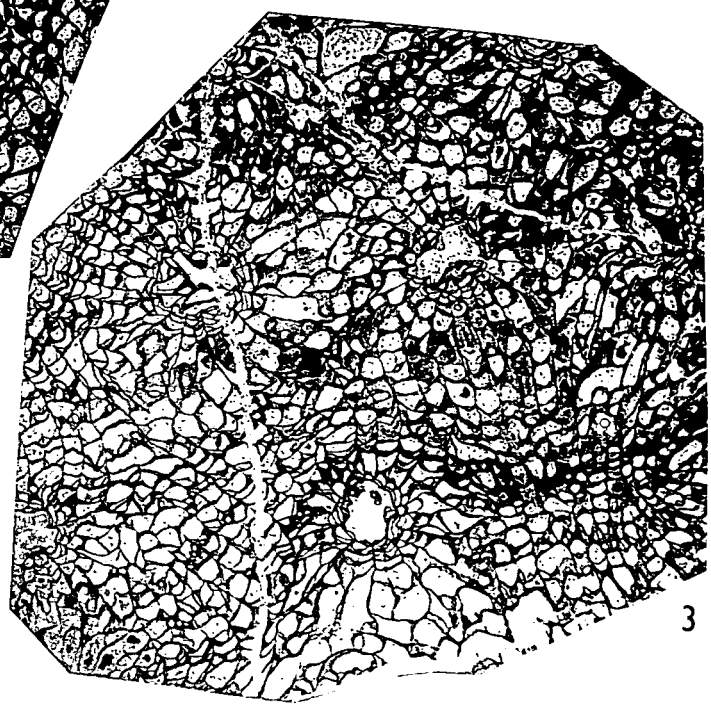

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PLATE 62

Fig. 1. O.indivisa Hudson. Lower Carboniferous, Yoredalian, Orionastraea Zone, Birks Gill, High Whitaside, Low Row, Swaledale. No. BMR 25237, British Museum, London. Fig'd Hudson, 1926, p.145, pl.viii, fig.1b. Holotype.

Fig. 2. O.indivisa Hudson. Lower Carboniferous, Yoredalian, Orionastraea Zone, Birks Gill, High Whitaside, Low Row, Swaledale. No. BMR 25236, British Museum, London. Fig'd Hudson, 1926, p.145, pl.viii, fig.1a. Holotype.

Fig. 3. O.indivisa Hudson. Lower Carboniferous, Yoredalian, Orionastraea Zone, Birks Gill, High Whitaside, Low Row, Swaledale. No. BMR 25238, British Museum, London. Fig'd Hudson, 1926, p.145, pl.viii, fig.1c. Holotype.

Fig. 4. O.indivisa Hudson. Toft Gate Limestone, Toft Gate Quarry, Pately Bridge, Yorkshire. No. JN 175aiii.


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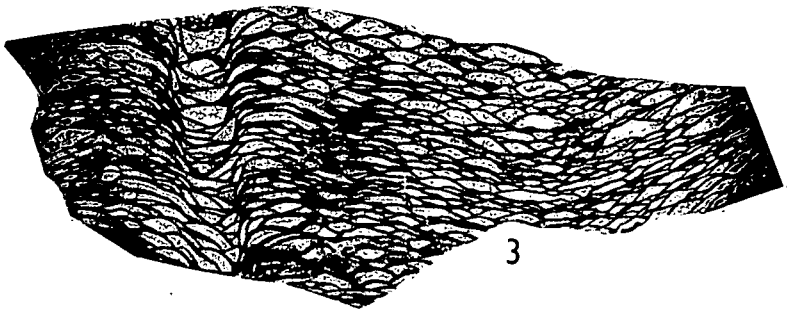
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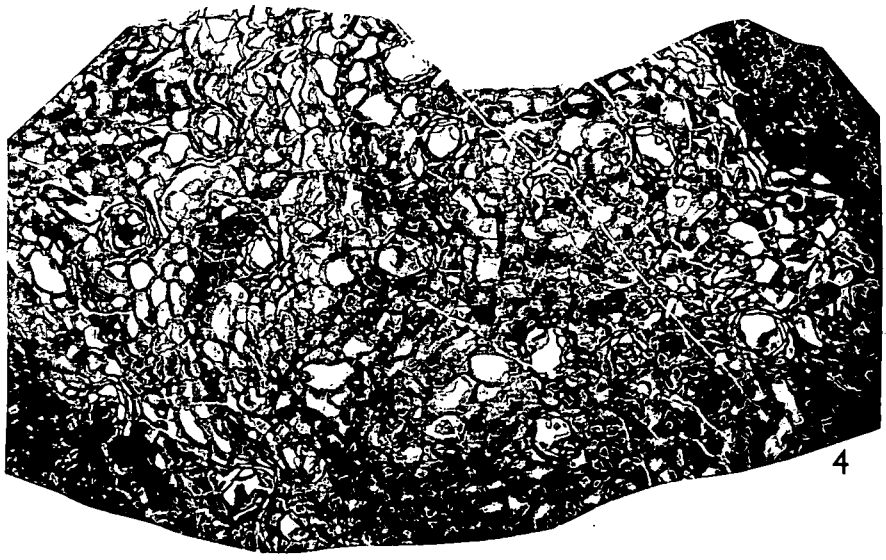
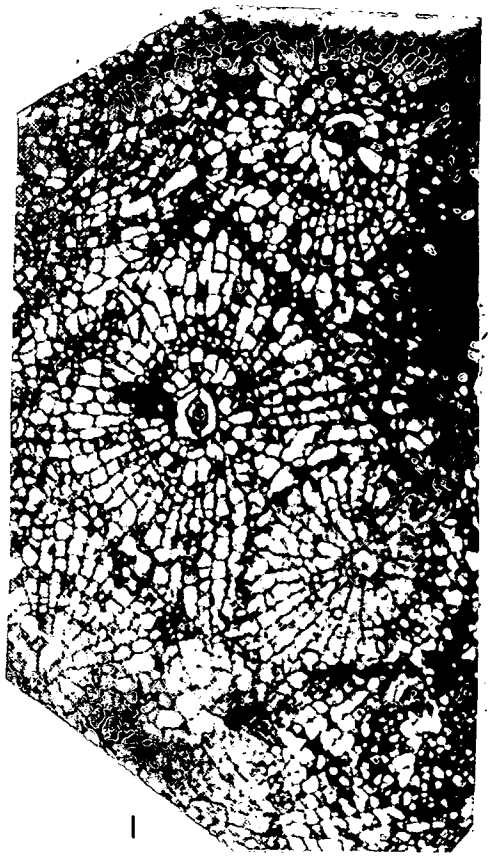

4

PLATE 63

Fig. 1. *H. matura* sp. nov. Holotype of *O. ensifer* var. *matura* Hudson. Carboniferous Limestone boulder in shale, Black Gill Beck, Scaleber, Settle, Yorkshire. No. 622, Garwood Collection, University College, London, according to Hudson (1929, p.457). The specimen is not traceable at present. Fig'd Hudson, 1929, p.445, pl.4, fig.4. Holotype.

Fig. 2. *H. magna* (Kato and Mitchell). *Orionastraea* band, D2 Zone, Ranes Lane, Feizor, Settle, Yorkshire. No. JN 125ai.



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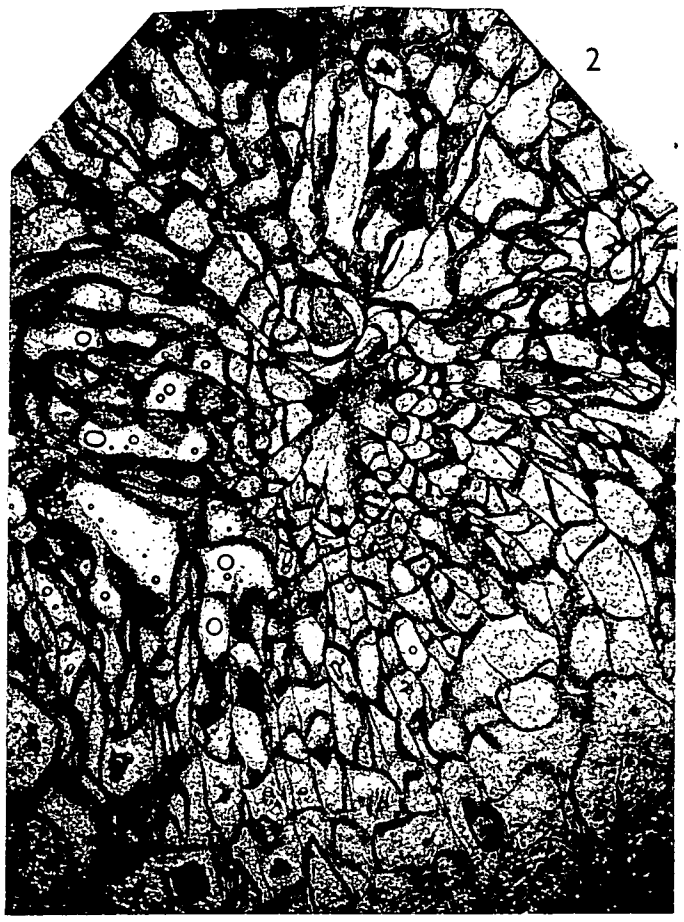

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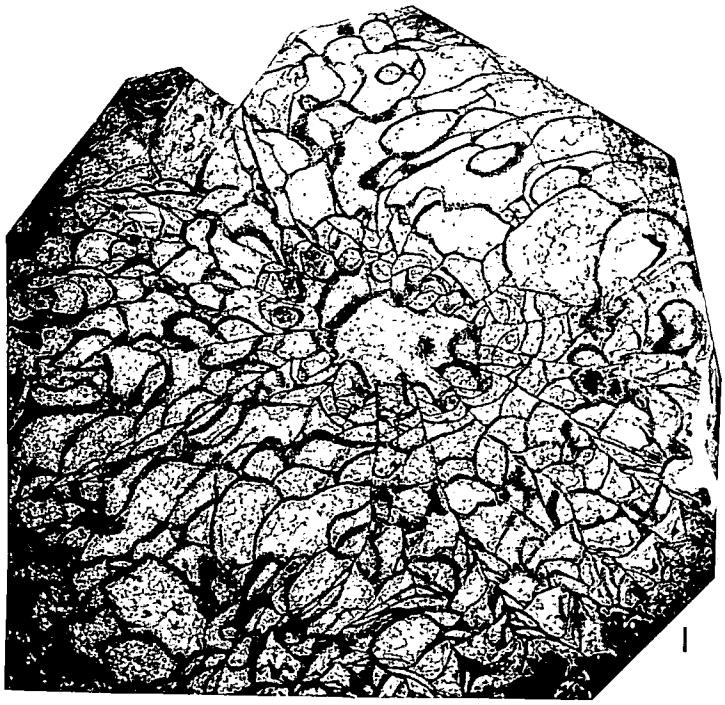
PLATE 64

Fig. 1. *H. magna* (Kato and Mitchell). *Orionastraea* band, D2 Zone, Brunton House, Feizor, Settle, Yorkshire. No. PL 310, Garwood Collection, I.G.S. Collection, Leeds. Fig'd Kato and Mitchell, 1970, p.49, pl.13, fig.3. Holotype.

Fig. 2. *H. magna* (Kato and Mitchell). *Orionastraea* band, D2 Zone, Brunton House, Feizor, Settle, Yorkshire. No. PL 309, Garwood Collection, I.G.S. Collection, Leeds. Fig'd Kato and Mitchell, 1970, p.49, pl.13, fig.2. Holotype.

Fig. 3. *H. magna* (Kato and Mitchell). *Orionastraea* band, D2 Zone, Brunton House, Feizor, Settle, Yorkshire. No. PL 310, Garwood Collection, I.G.S. Collection, Leeds. Fig'd Kato and Mitchell, 1970, p.49, pl.13, fig.3. Holotype.



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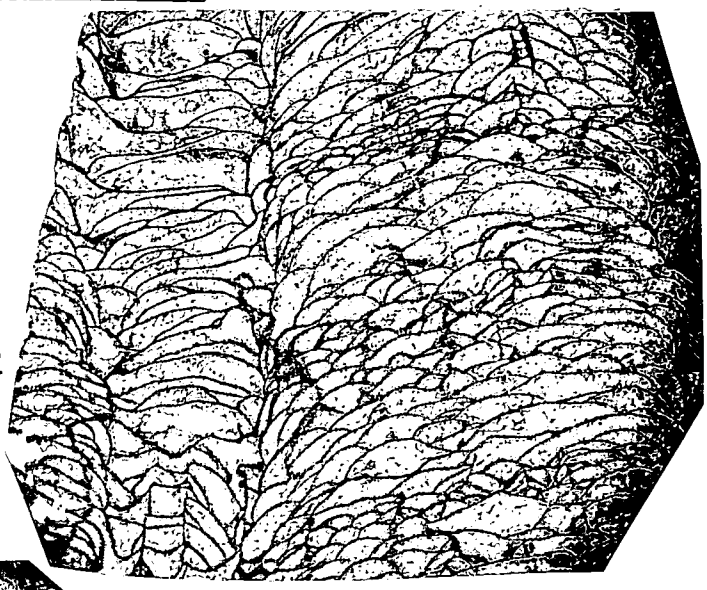

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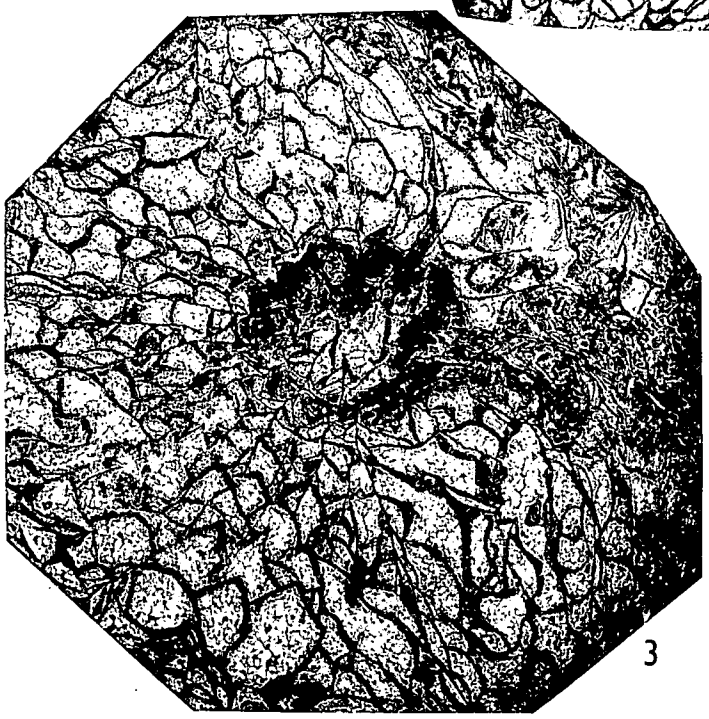

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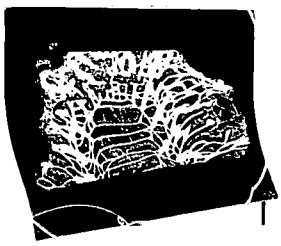
PLATE 65

Fig. 1. A.senex Hill. Superior Beds, Upper Limestone Series, Old Quarry, Glencart, Dalry, Scotland. No. RSM 1911.62.2120, Neilson Collection, Royal Scottish Museum, Edinburgh. Fig'd Hill, 1940, p.193, pl.xi, fig.9 and 10. Holotype. X2.

Fig. 2. A.senex Hill. Superior Beds, Upper Limestone Series, Old Quarry, Glencart, Dalry, Scotland. No. RSM 1911.62.2120, Neilson Collection, Royal Scottish Museum, Edinburgh. Fig'd Hill, 1940, p.193, pl.xi, fig.9 and 10. Holotype. X2.

Fig. 3. A.senex Hill. Harlow Hill Limestone, Harlow Hill, Northumberland. No. PF 1910, I.G.S. Collection, Leeds. Fig'd Smith, 1943, pl.ix, fig.6.



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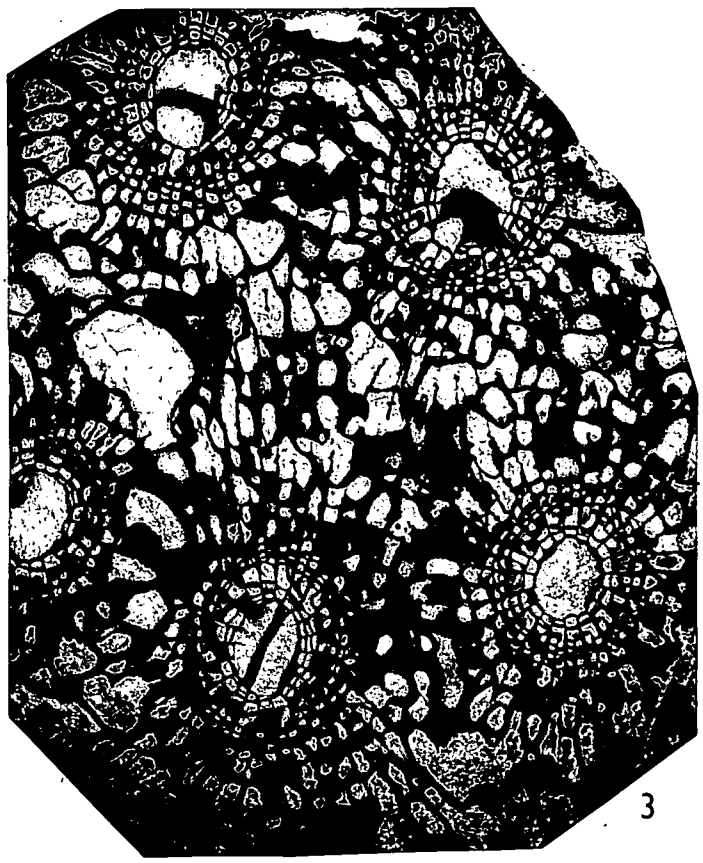

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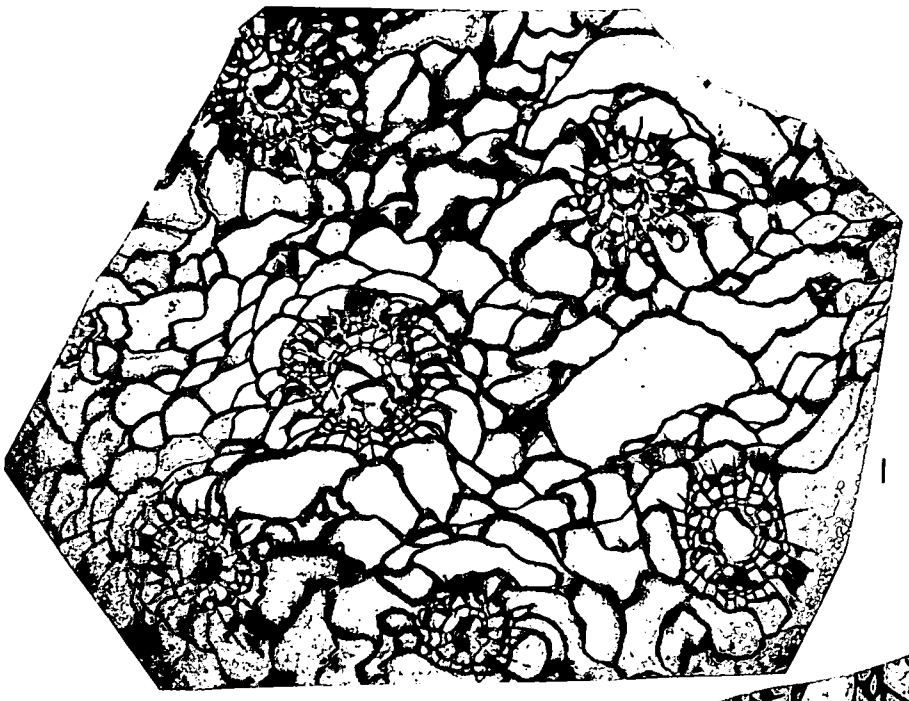
PLATE 66

Fig. 1. *A. botanica sp. nov.* Botany Limestone, Botany, Romaldkirk, Co. Durham. No. JN 61biii. Holotype.

Fig. 2. *A. botanica sp. nov.* Botany Limestone, Botany, Romaldkirk, Co. Durham. No. JN 61bii. Holotype.

Fig. 3. *A. botanica sp. nov.* Botany Limestone, Botany, Romaldkirk, Co. Durham. No. JN 61bi. Holotype.

Fig. 4. *A. botanica sp. nov.* Botany Limestone, Botany, Romaldkirk, Co. Durham. No. JN 61ei.



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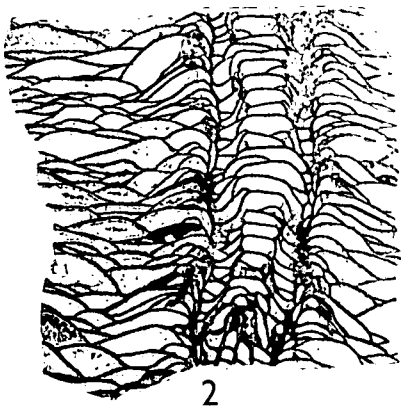

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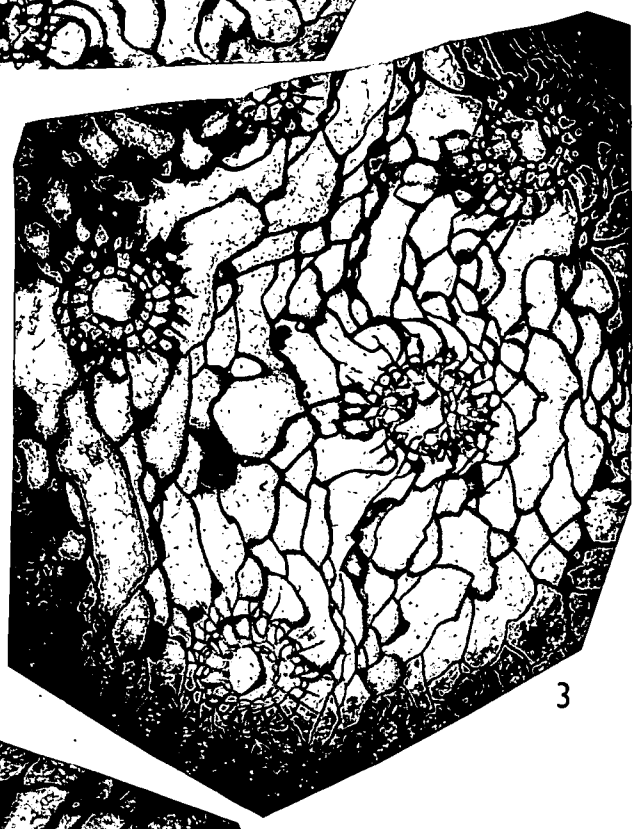

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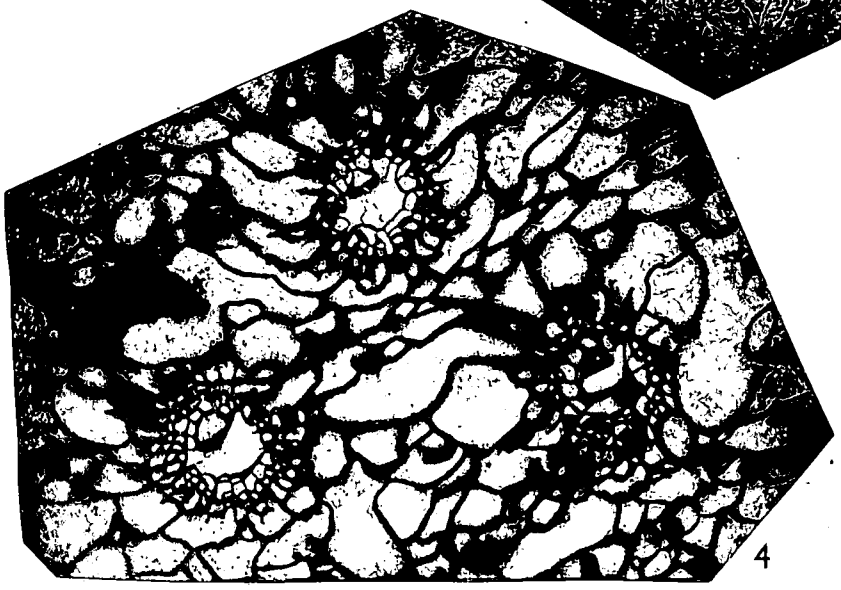

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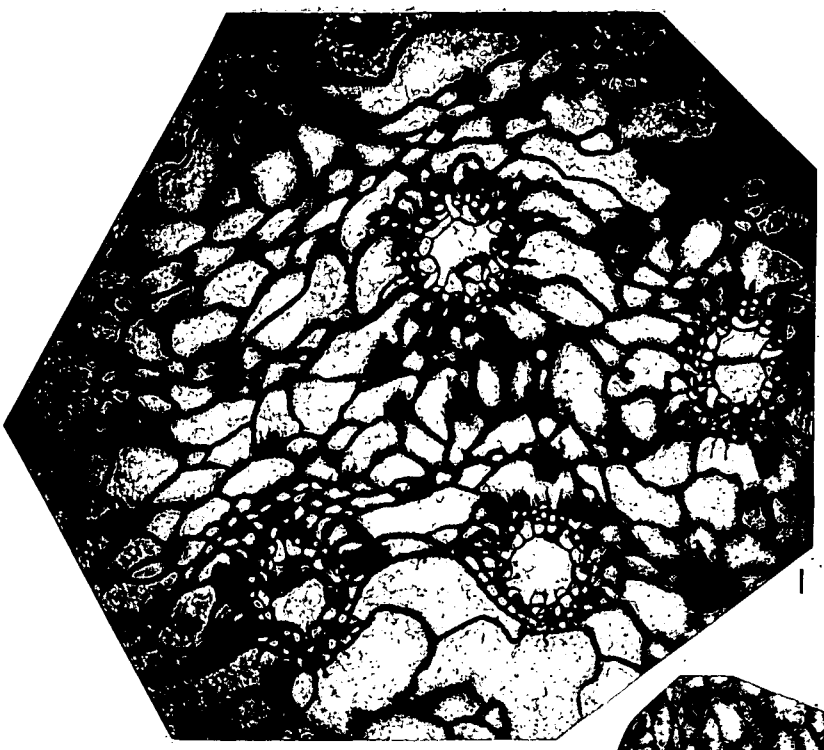
PLATE 67

Fig. 1. *A. botanica sp. nov.* Botany Limestone, Botany, Romaldkirk, Co. Durham. No. JN 61ei.

Fig. 2. *A. botanica sp. nov.* Botany Limestone, Botany, Romaldkirk, Co. Durham. No. JN 61dii.

Fig. 3. *A. botanica sp. nov.* Botany Limestone, Botany, Romaldkirk, Co. Durham. No. JN 61di.

Fig. 4. *A. botanica sp. nov.* Botany Limestone, Botany, Romaldkirk, Co. Durham. No. JN 61diii.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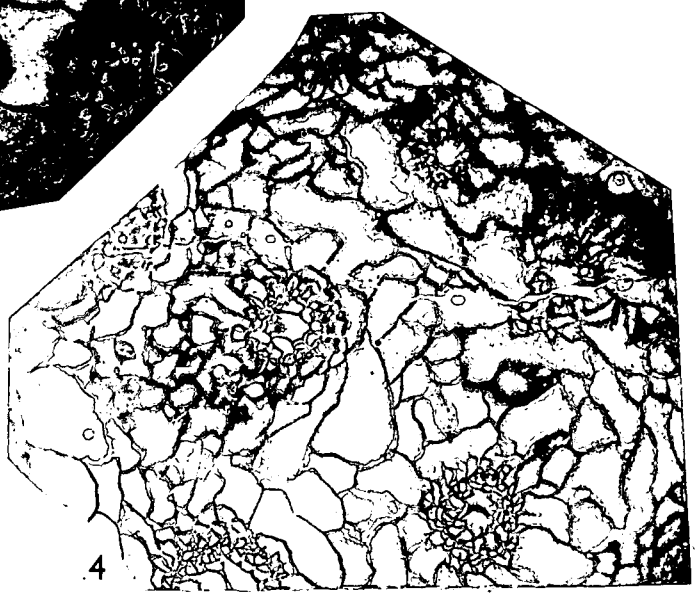
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PLATE 68

Fig. 1. A.rotiformis rotiformis Smith. Harlow Hill Limestone, Harlow Hill, Northumberland. No. SMA 1802c, Sedgwick Museum, Cambridge. Holotype.

Fig. 2. A.rotiformis rotiformis Smith. Botany Limestone, Botany Ridge, Romaldkirk, Co. Durham. No. JN 151aii.

Fig. 3. A.rotiformis rotiformis Smith. Harlow Hill Limestone, Harlow Hill, Northumberland. No. JN 153ai.

Fig. 4. A.rotiformis rotiformis Smith. Harlow Hill Limestone, Harlow Hill, Northumberland. No. JN 150aii.


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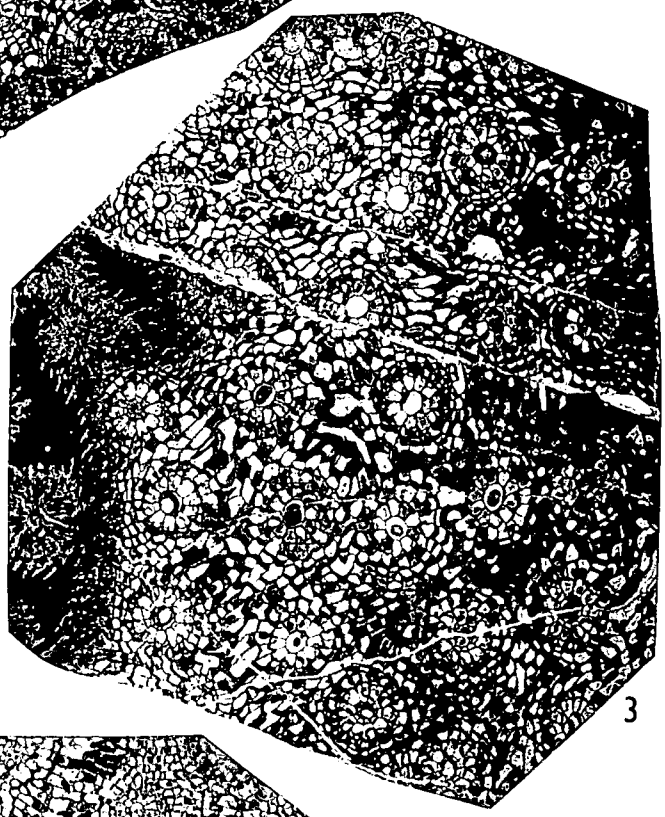
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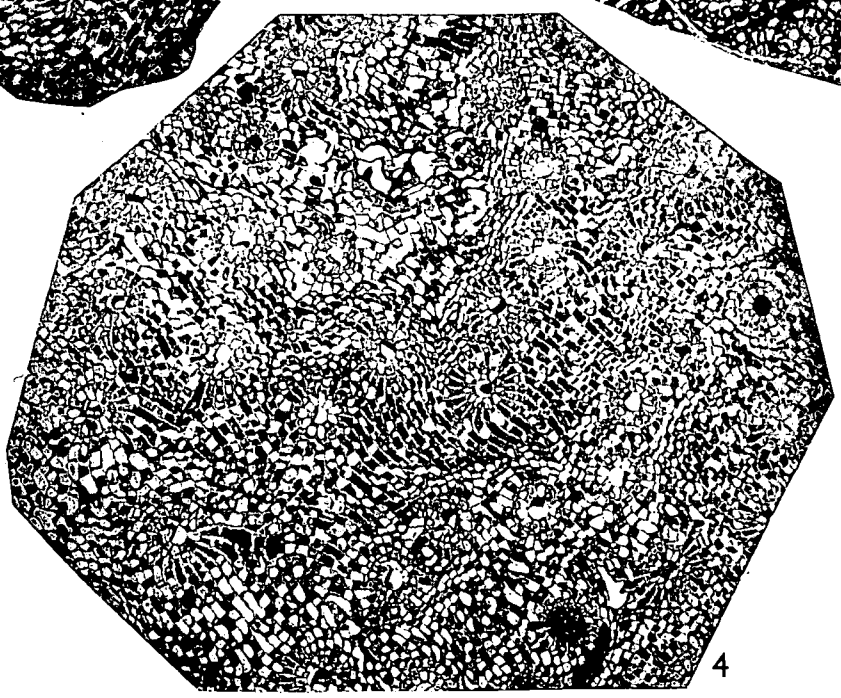
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PLATE 69

Fig. 1. A.rotiformis rotiformis Smith. Harlow Hill Limestone, Harlow Hill, Northumberland. No. JN 17biii.

Fig. 2. A.rotiformis rotiformis Smith. Botany Limestone, How Gill, Botany, Romaldkirk, Co. Durham. No. JN 61avi.

Fig. 3. A.rotiformis rotiformis Smith. Harlow Hill Limestone, Harlow Hill, Northumberland. No. JN 17cii.

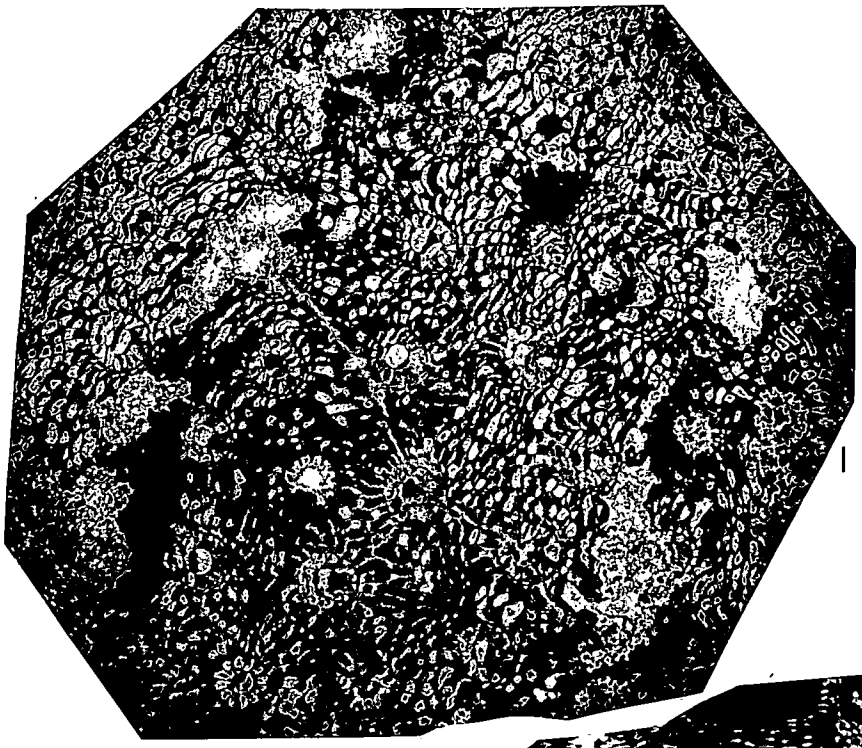

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PLATE 70

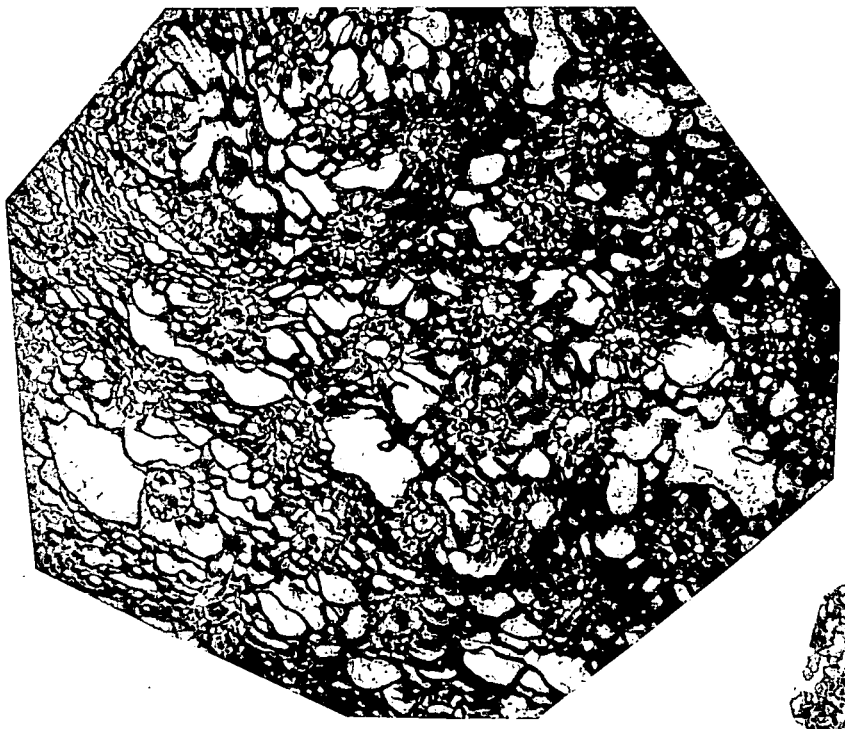
Fig. 1. *A.rotiformis aphroidia* Smith. Harlow Hill Limestone, Harlow Hill, Northumberland. No. JN 116aii.

Fig. 2. *A.rotiformis aphroidia* Smith. Botany Limestone, Botany Mill, Botany, Romaldkirk, Co. Durham. No. JN 154ai.

Fig. 3. *A.rotiformis aphroidia* Smith. Botany Limestone, How Gill, Botany, Romaldkirk, Co. Durham. No. JN 61aiv.

Fig. 4. *A.rotiformis aphroidia* Smith. Botany Limestone, How Gill, Botany, Romaldkirk, Co. Durham. No. JN 61aii.

Fig. 5. *A.rotiformis aphroidia* Smith. Botany Limestone, How Gill, Botany, Romaldkirk, Co. Durham. No. JN 61aiii.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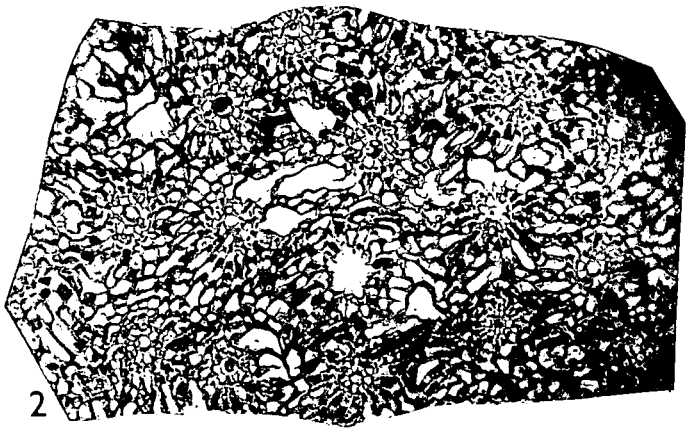
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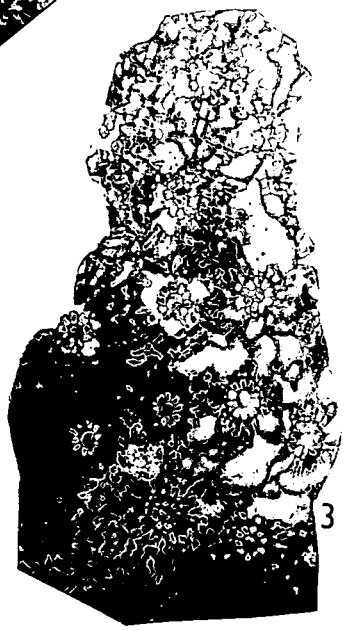
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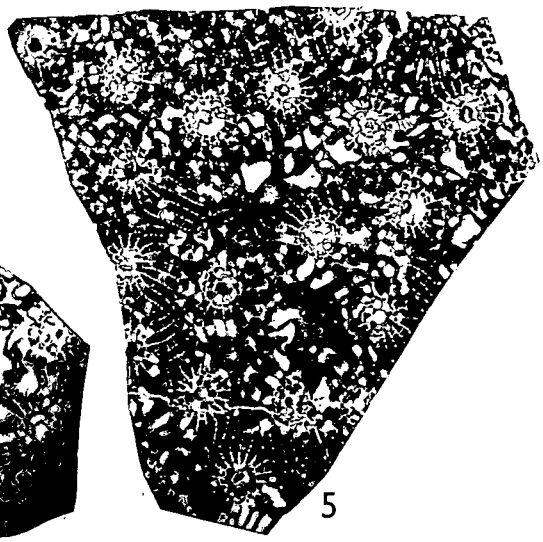
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PLATE 71

F.horsfieldi(Smith and Yu). Haw Bank Limestone, Lower Syringothyris Zone, (C1), railway cutting, Bell Busk Station, Yorkshire. No. BMR 34238, British Museum, London. Cit'd Smith and Yu, 1943, p.49. Holotype.

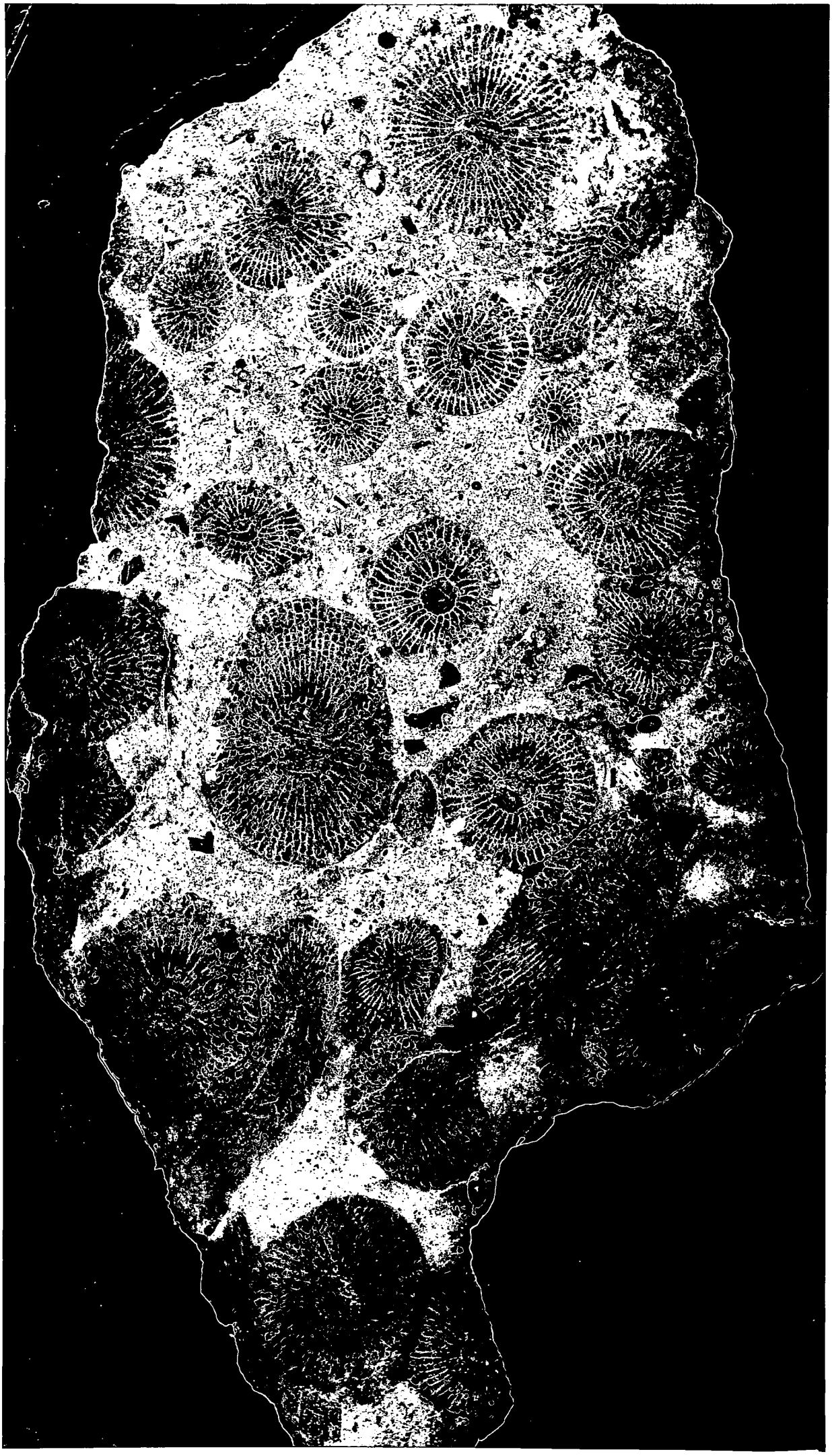
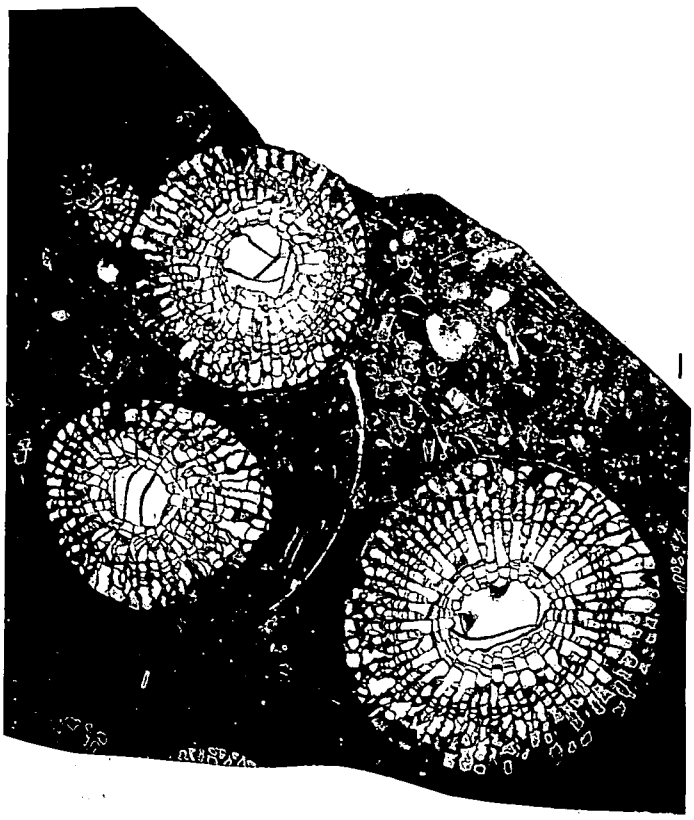


PLATE 72

Fig. 1. F. horsfieldi (Smith and Yu). Haw Bank Limestone, Lower Syringothyris Zone (C1), railway cutting, 300 yds. W. of Bell Busk Station, Yorkshire. No. BMR 34240, British Museum, London. Fig'd Smith and Yu, 1943, p.49, pl.10, fig.3. Paratype.

Fig. 2. F. horsfieldi (Smith and Yu). Upper Syringothyris Zone (C2), Black Rocks, Southerdown, Glamorganshire. No. BMR 30975 (Thin Section), British Museum, London. Fig'd Smith and Yu, 1943, p.49, pl.10, fig.6.



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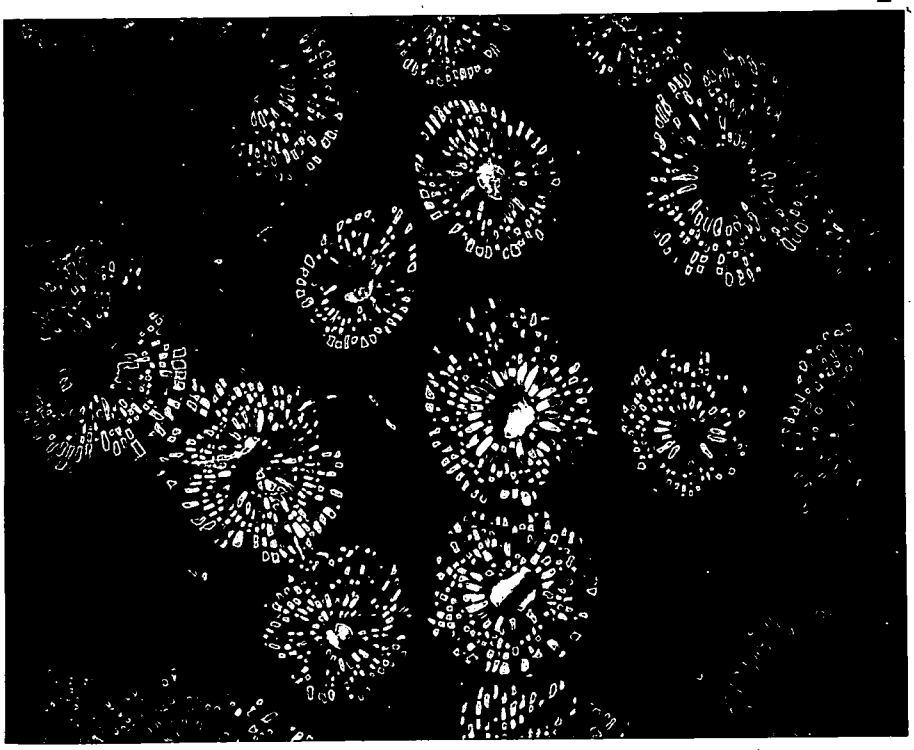

PLATE 73

F. horsfieldi (Smith and Yu). Upper Syringothyris Zone (C2), Black Rocks, Southerdown, Glamorganshire.
No. BMR 30975 (Acetate Peel), British Museum, London. X2

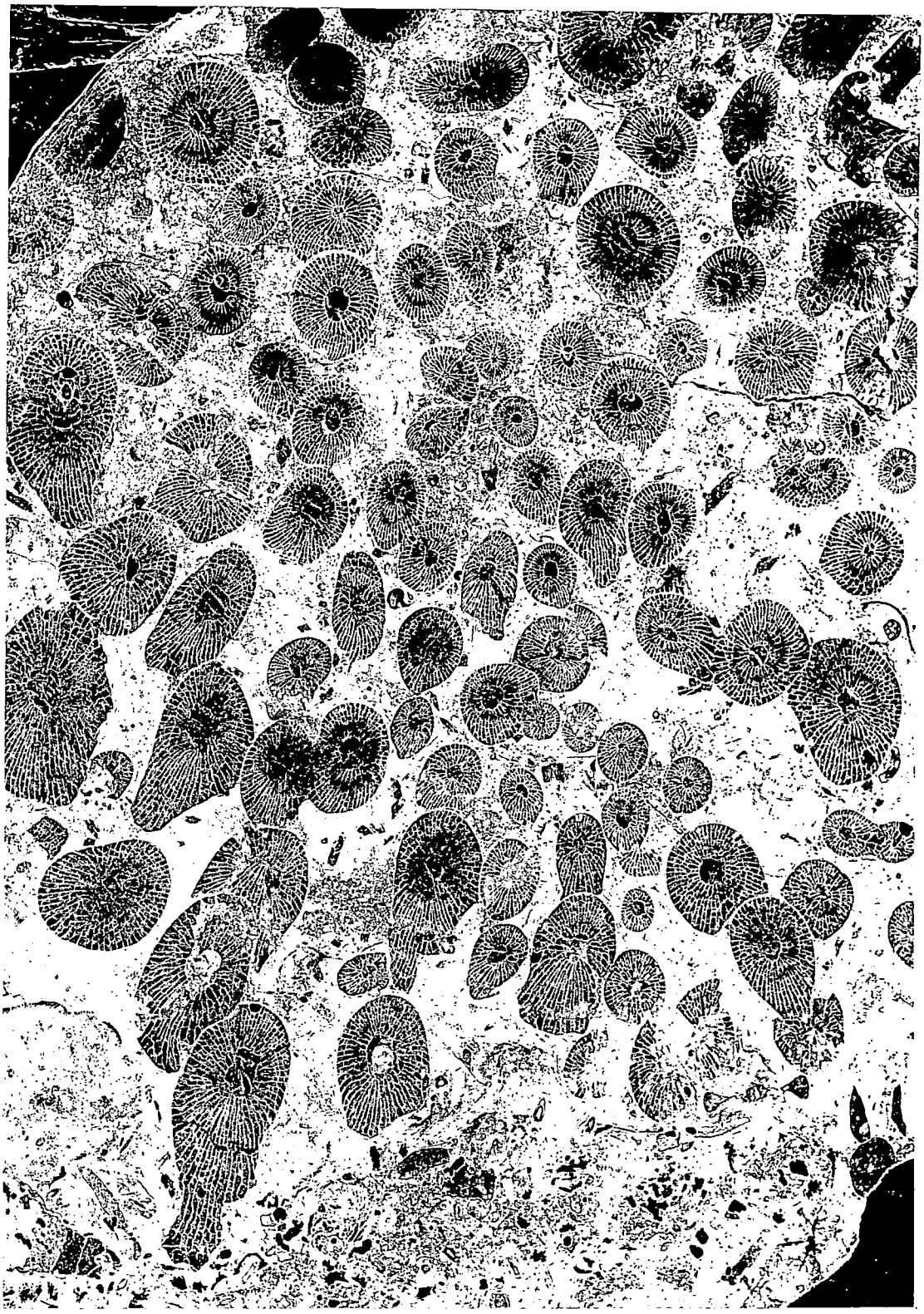

PLATE 74

Fig. 1. F.hibernica(Clarke). Basal D1 beds, W. of Brownstown House, Co. Meath, Ireland. No. TCD 2645h, Trinity College, Dublin. Fig'd Clarke, 1966, p.222, pl.20, fig.1b. Holotype.

Fig. 2. F.hibernica(Clarke). Basal D1 beds, W. of Brownstown House, Co. Meath, Ireland. No. TCD 2645i, Trinity College, Dublin. Fig'd Clarke, 1966, p.222, pl.20, fig.1a.

Fig. 3. F.hibernica(Clarke). Basal D1 beds, W. of Brownstown House, Co. Meath, Ireland. No. TCD 2645h, Trinity College, Dublin. Fig'd Clarke, 1966, p.222, pl.20, fig.1b.

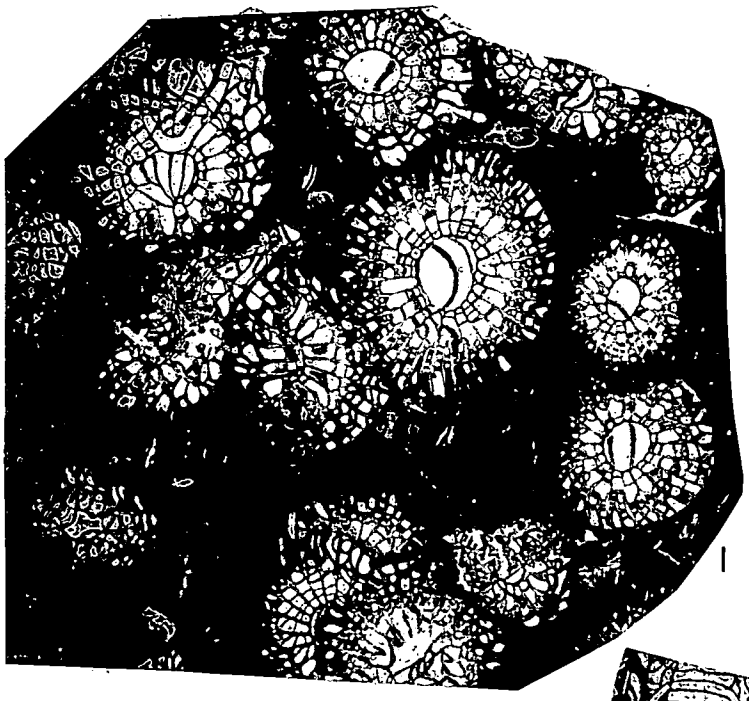
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PLATE 75

F. furcata (Smith). Carboniferous Limestone, Siggate, S.E. of Castleton, Derbyshire. No. BMR 24968, British Museum, London. Cit'd Smith, 1925, p.490. Paratype.