PLATE I

BERESELLA and ZAPORELLA

Beresella hermineae sp. nov., figs. 1, 2, 3

Fig. 1. Holotype. Axial section. Note the egg-cup shape of the pores. Slide no. I-b-476 16 ×

Fig. 2. Axial section of a plant fragment. Slide no. I-b-476 16 ×

Fig. 3. Cross section of the thallus. Slide no. I-b-476a 16 ×

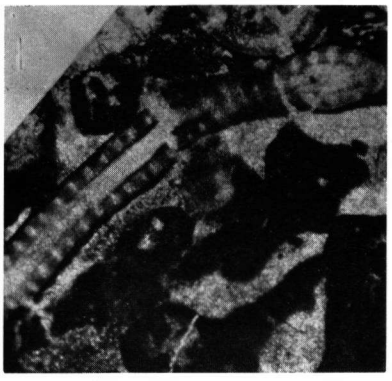
Zaporella cantabriensis gen. et sp. nov., figs. 4, 5, 6, 7

Fig. 4. Cross section. Here the pores are regularly disposed. Slide no. II-AB-43. Holotype. 20 ×

Fig. 5. Axial section of the specimen. Slide no. II-A-M-53 20 ×

Fig. 6. Oblique section of the upper part of the thallus. Slide no. II-A-M-53 20 ×

Fig. 7. Tangential section. Slide no. II-A-G-5 20 ×



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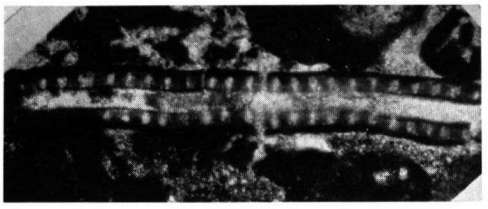

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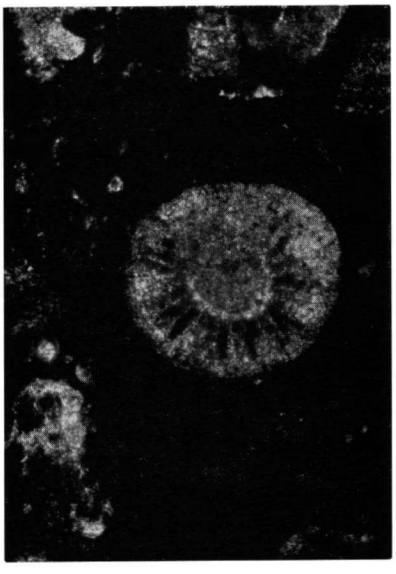

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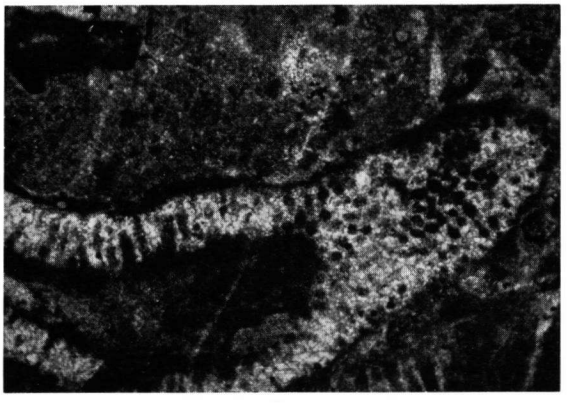

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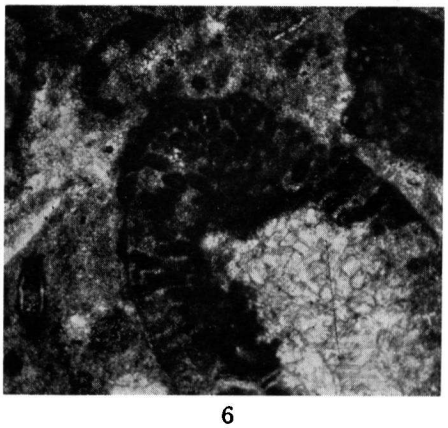

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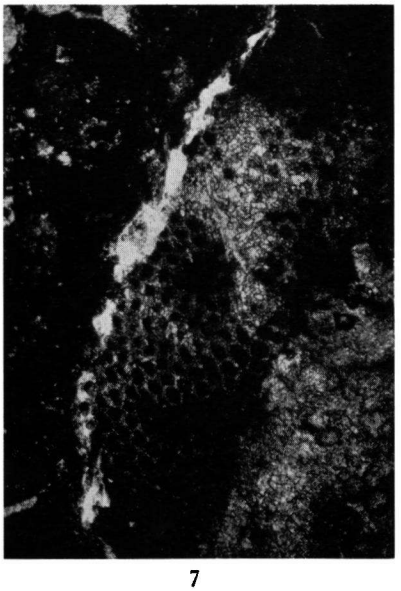

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PLATE II

MELLPORELLA and EPIMASTOPORA

Mellporella beundermani gen. et sp. nov., figs. 1, 2, 3

Fig. 1. Holotype. Cross section. Notice the bifurcation of the branches. Slide no. II-A-B-91 20 ×

Fig. 2. Same specimen as in fig. 1, in this plate. Slide no. II-A-B-91 16 ×

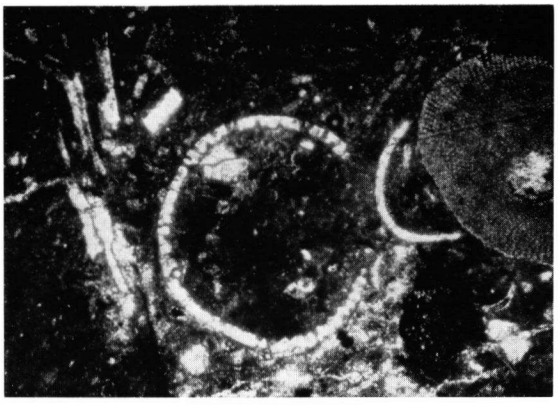
Fig. 3. Oblique section. Slide no. II-A-B-81 53 ×

Epimastopora rolloensis sp. nov. figs. 4, 5, 6

Fig. 4. Longitudinal section, showing the irregular arrangement of the pores. Slide II-A-S-13 20 ×

Fig. 5. Oblique section, showing the form of construction of the pores. Slide no. II-A-S-16 16 ×

Fig. 6. Tangential section. Note the distribution and the form of the pores. Slide no. II-A-S-16 16 ×



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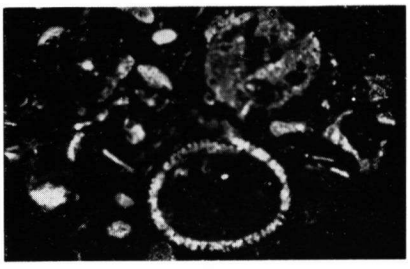

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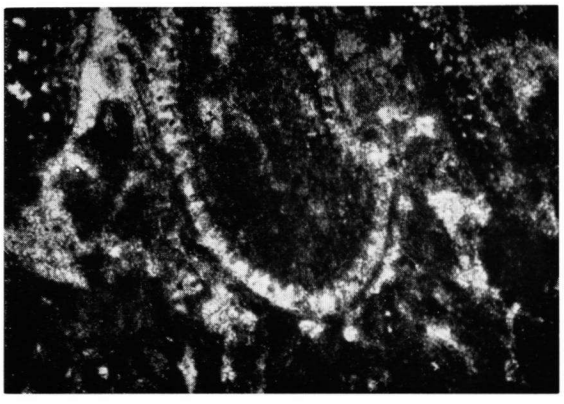

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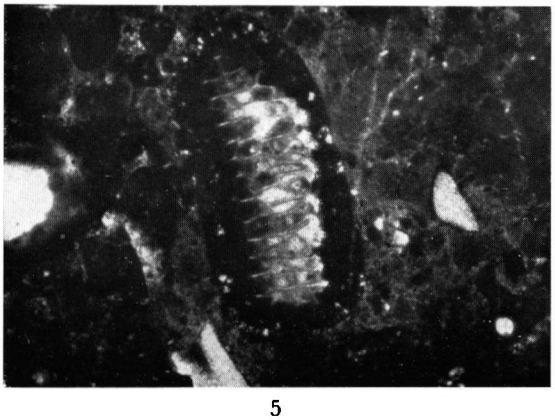

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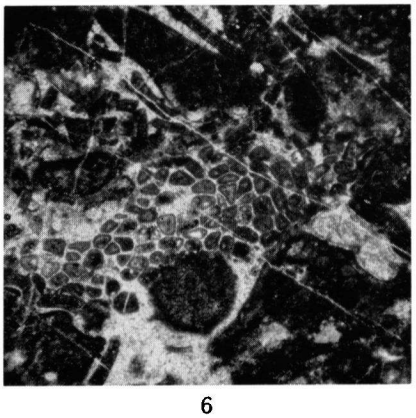

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PLATE III

DVINELLA and EPIMASTOPORA

Dvinella comata CHVOROVA; figs. 1, 2

Fig. 1. Longitudinal section, showing the arrangement of the pores. Slide no. II-A-G-1 16 ×

Fig. 2. Same specimen as in fig. 1 in this plate. Slide no. II-A-G-1 53 ×

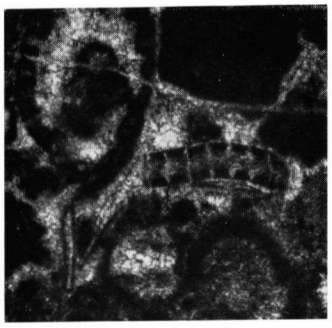
Epimastopora bodoniensis sp. nov., figs. 3, 4, 5, 6

Fig. 3. Longitudinal section of a fragment, showing the changes of thickness of the pores. Slide no. I-c-A-11. Holotype. 20 ×

Fig. 4. Slightly oblique cross section. Note the arrangement of the characteristic pores. Slide no. I-c-A-11 16 ×

Fig. 5. Tangential section, showing the polygonal form of the pores. Slide no. I-c-5 40 ×

Fig. 6. Two longitudinal sections, showing the form and the arrangement of the pores. Slide no. I-c-5 20 ×



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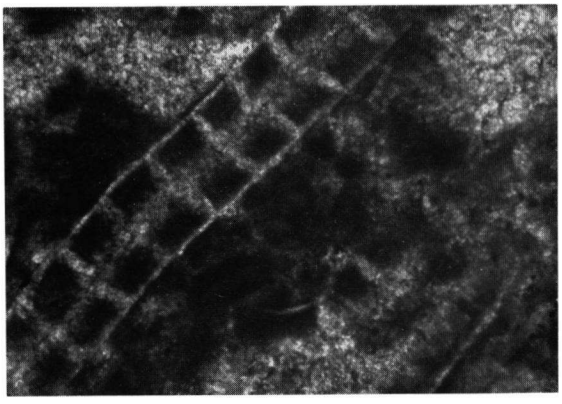

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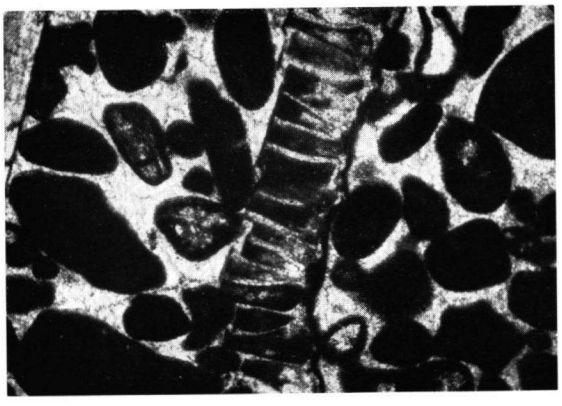

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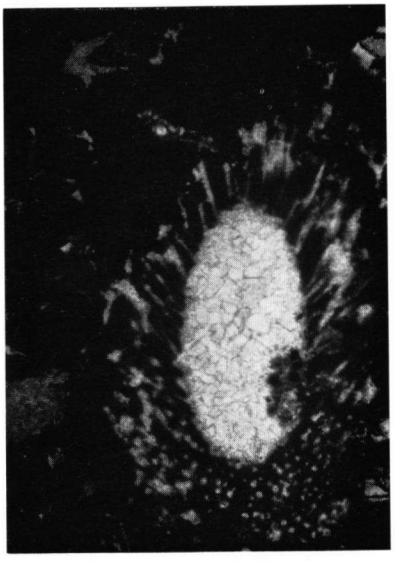

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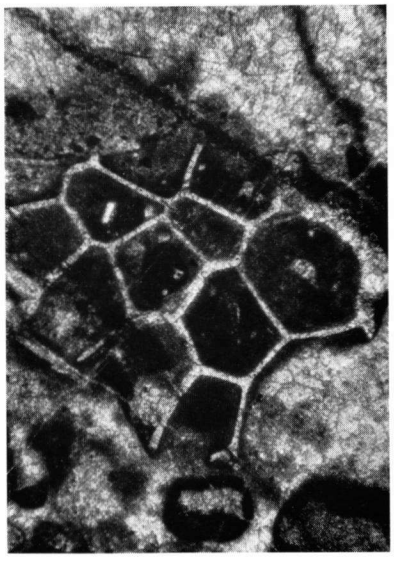

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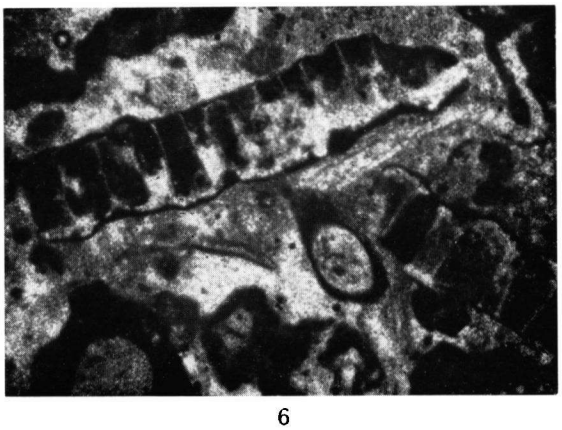

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PLATE IV

EPIMASTOPORA sp., MELLPORELLA and URALOPORELLA

Epimastopora sp. figs. 1, 2, 3

Fig. 1. Longitudinal section of a slightly curved specimen. Note the uniform pores. Slide no. I-b-143 20 ×

Fig. 2. Slightly oblique longitudinal section of a fragment. Slide no. I-b-143 16 ×

Fig. 3. Same specimen as in fig. 1 in this plate. Slide no. I-c-466 53 ×

Mellporella anthracoporellaformis gen. et sp. nov. figs. 4, 5, 6, 7

Fig. 4. Cross section, showing the bifuraction of the pores. Slide no. I-c-163 20 ×

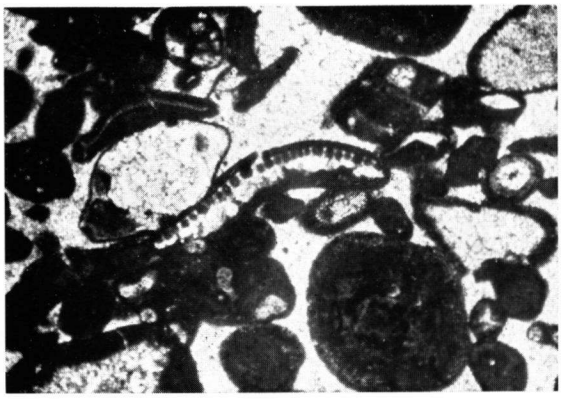
Fig. 5. Oblique section of the specimen. Note the bifurcation of the pores. Slide no. I-c-163 20 ×

Fig. 6. Same specimen as in fig. 5 this plate. Slide no. I-b-90 80 ×

Fig. 7. Longitudinal section. Detailed photo of the bifurcation of the pores. Slide no. I-b-90

Uraloporella sieswerdai sp. nov., fig. 8

Fig. 8. Axial section of the thallus. Slide no. II-IV-S-79 20 ×



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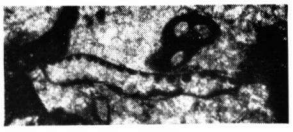

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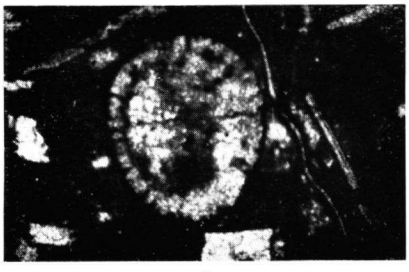

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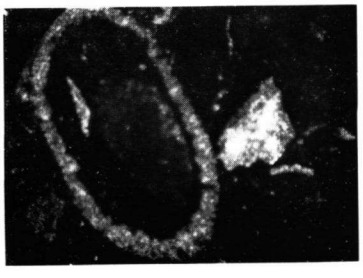

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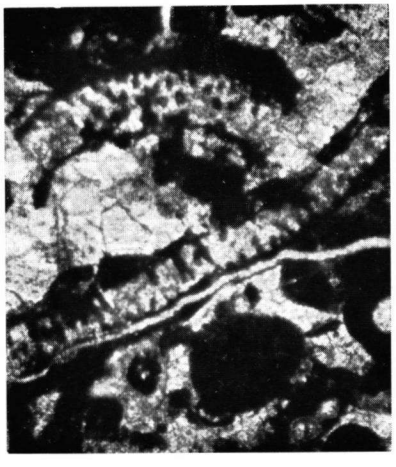

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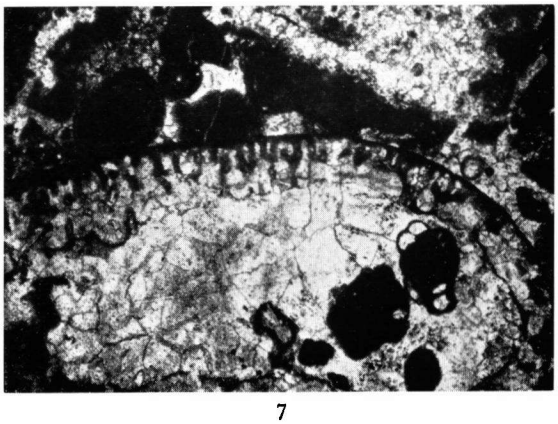

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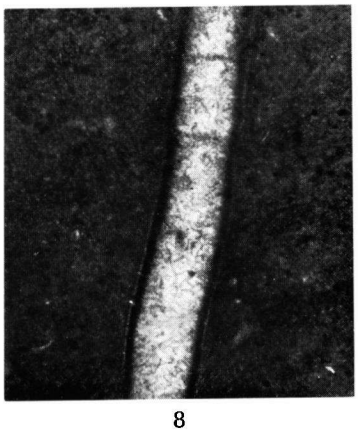

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PLATE V

URALOPORELLA and ANTHRACOPORELLA

Uraloporella sieswerdai sp. nov., figs. 1, 2, 3

Fig. 1. Various sections. Note the secondairy tufts of pores and the few primary pores. Slide no. III-IV-S-79 20 ×

Fig. 2. Longitudinal section of the specimen, showing the arrangement of the characteristic pores. Slide no. III-IV-S-80 20 ×

Fig. 3. Slightly oblique transversal section. Slide no. III-IV-S-80 53 ×

Anthracoporella spectabilis, PIA, figs. 4, 5, 6, 7

Fig. 4. Various sections, showing the dichotomous branching of the thallus. Slide no. I-b-57 7 ×

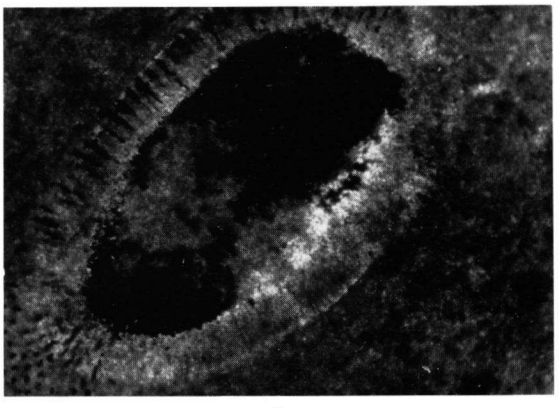
Fig. 5. Longitudinal section, showing the two-fold branching of the thallus. Slide no. 436a 16 ×

Fig. 6. Cross section of a whorl. Notice the bifurcation of the pores. Slide no. I-b-57 16 ×

Fig. 7. Cross section. Within the inner part the geopetal pore filling is visible consisting of sparry calcite and calcite ooze. Slide no. 436a 16 ×

1

2



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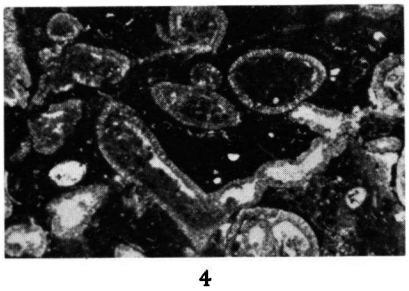

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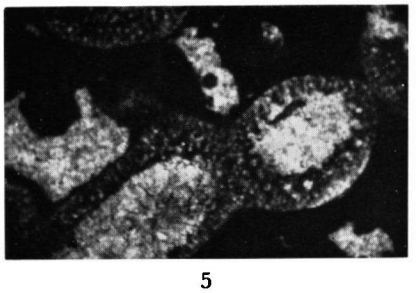

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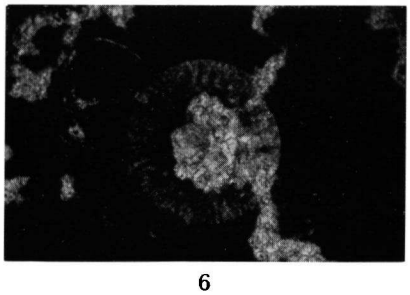

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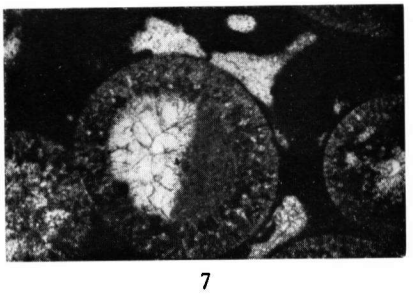

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PLATE VI

MACROPORELLA and DONEZELLA

Macroporella ginkeli sp. nov., figs. 1, 2, 3

Fig. 1. Slightly oblique cross section of a whorl, showing the regular arrangement of the pores. Slide no. A-IV-V-32 16 ×

Fig. 2. Axial section of an article. Note the characteristic arrangement of the pores. Slide no. A-IV-V-33 16 ×

Fig. 3. Oblique section of an article. Slide no. A-IV-V-44 16 ×

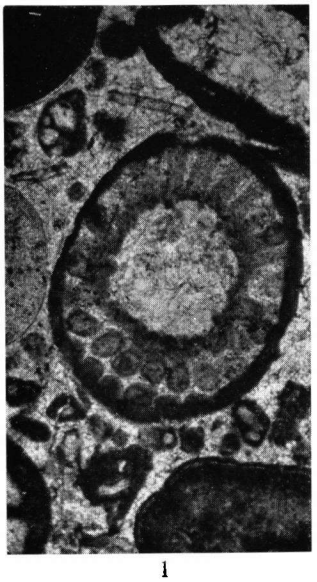
Donezella lunaensis sp. nov., figs. 4, 5, 6

Fig. 4. Holotype. Tubes in longitudinal section below in the middle showing the branching of two tubes, with branches directed at about 90°. Now one branch is broken. Slide no. I-c-471 20 ×

Fig. 5. Various sections of the specimen with the characteristic properties. Slide no. I-c-471 20 ×

Fig. 6. Longitudinal and oblique sections of several fragments. Slide no. I-c-471a 20 ×

Fig. 7. Several articles. The characteristic perpendicular branching of two tubes, is visible in the middle. Slide no. I-c-471 20 ×



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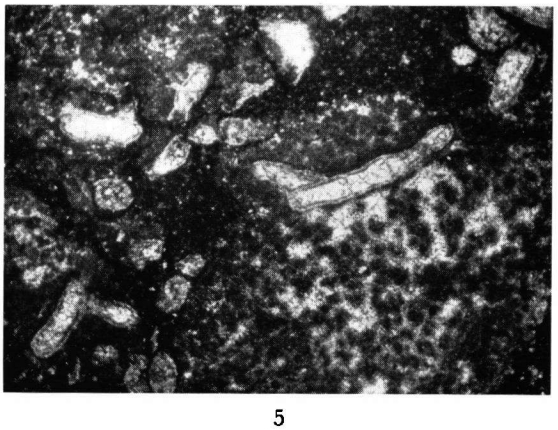

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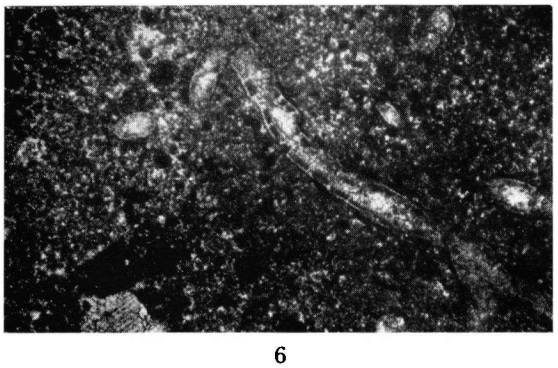

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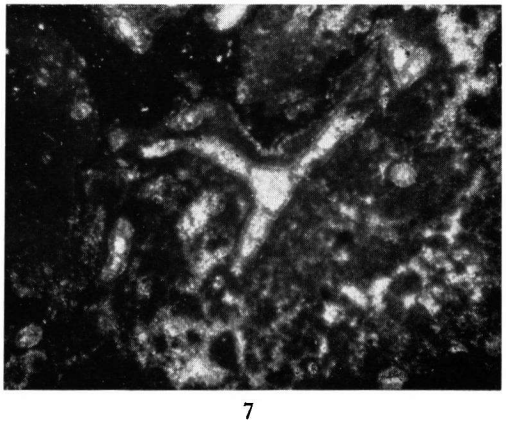

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PLATE VII

DONEZELLA and ORTONELLA

Donezella lunaensis sp. nov., fig. 1

Fig. 1. Longitudinal section; showing the manner of the branching and the articulating of the tubes. Slide no. I-c-471 53 ×

Donezella lutugini MASLOV, figs. 2, 3

Fig. 2. Tubes of a colony, showing the various branching of the tubes. Slide no. VIII-409 20 ×

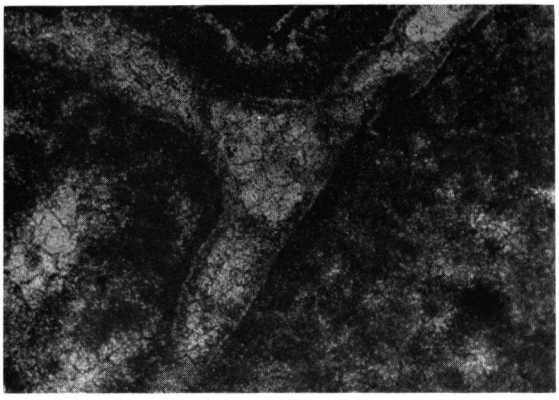
Fig. 3. Longitudinal section of several tubes, showing the characteristic construction. Slide no. I-c-124 20 ×

Ortonella myrae sp. nov., figs. 4, 5, 6

Fig. 4. Small, branched tubes of a colony. Slide no. I-a-46. Holotype. 20 ×

Fig. 5. Longitudinal section the branching of the tubes. Slide no. I-a-48 40 ×

Fig. 6. Strongly branched tubes of a colony. Slide no. I-a-48 20 ×



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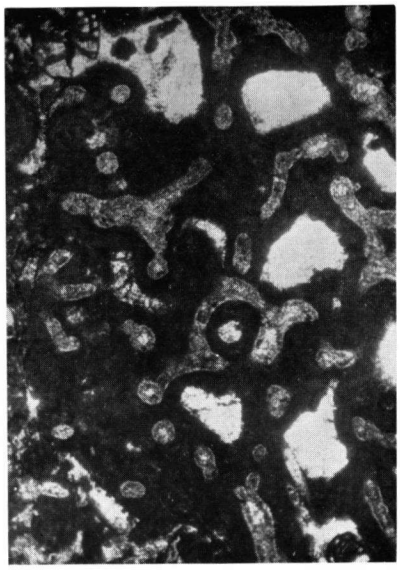

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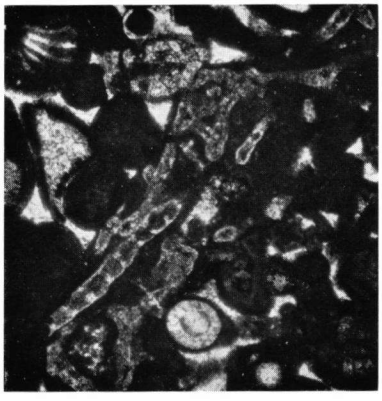

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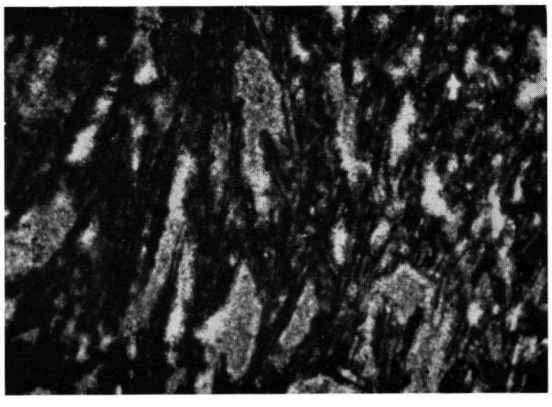

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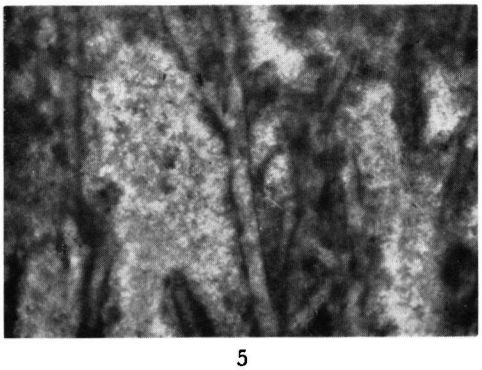

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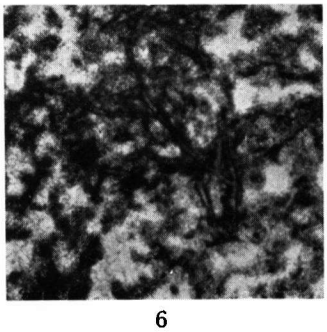

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PLATE VIII

AMORFIA and CUNEIPHYCUS

Amorfia jalinki, gen. et sp. nov., figs. 1, 2, 3, 4, 5

Fig. 1. Longitudinal section, showing the structure of the perithallus. Slide no. II-A-J-9 20 ×

Fig. 2. Shows part of fine cells and the cross-walls. Slide no. II-A-J-9 20 ×

Fig. 3. Cross section of the thallus, with perfect cell construction. In the middle of the specimen the plygonal cells of the hypothallus are visible. Slide no. II-A-B-50 20 ×

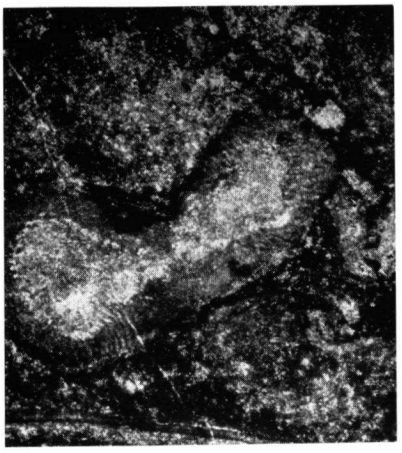
Fig. 4. Longitudinal section, showing the branching the cell-construction of the thallus. Slide no. II-A-B-50 20 ×

Fig. 5. Detailed photo of fig. 3 in this plate. Slide no. II-A-B-50 53 ×

Cuneiphycus aliquantulus JOHNSON; figs. 6, 7

Fig. 6. A fragment of the specimen. Slide no. II-A-M-66 53 ×

Fig. 7. The same fragment as in fig. 6 in this plate. Slide no. II-A-M-66 20 ×



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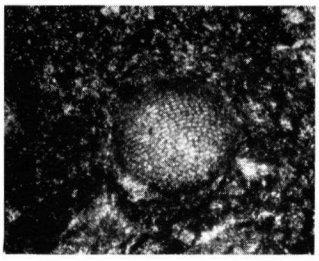

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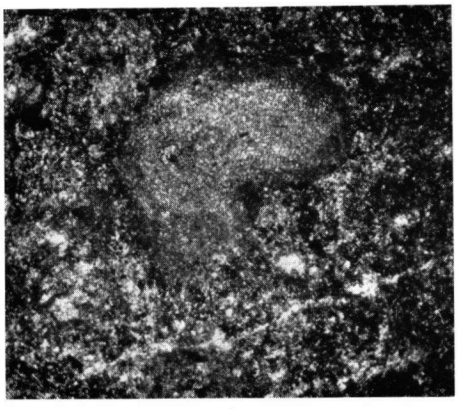

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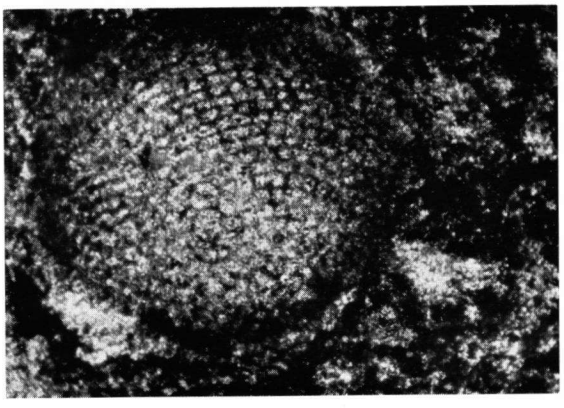

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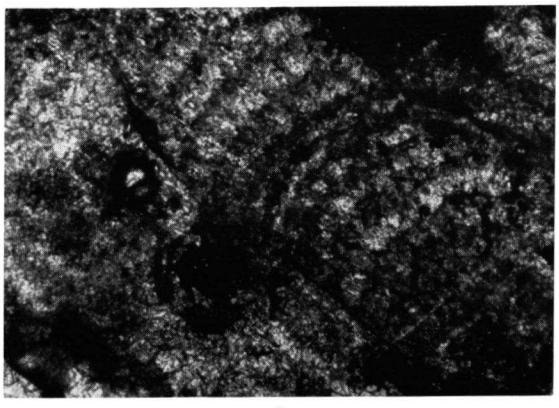

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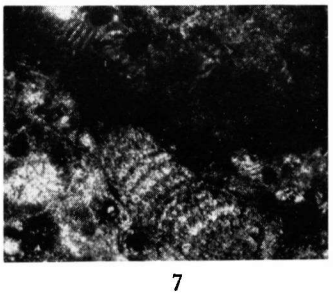

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PLATE IX

ARCHAEOLITHOPHYLLUM and PSEUDOKOMIA

Archaeolithophyllum johnsoni sp. nov., figs. 1, 2, 3, 4

Fig. 1. Longitudinal section, showing the polygonal cell-construction of the hypothallus. The construction of the perithallus is not clear. Slide no. I-c-106 20 ×

Fig. 2. Strongly recrystallized fragment with a few polygonal cells of the hypothallus. Slide no. I-c-106 20 ×

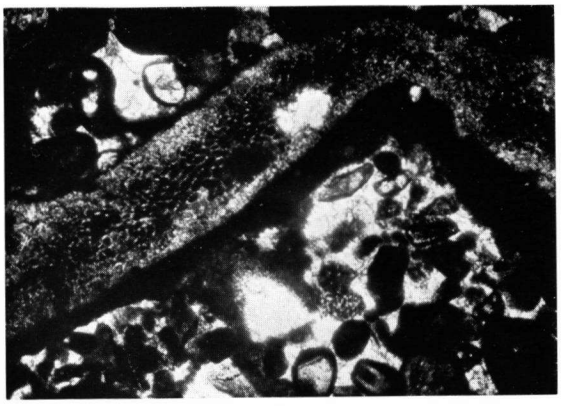
Fig. 3. Recrystallized fragment, but the tissue of the hypothallus is visible in some parts. Slide no. I-b-145 20 ×

Fig. 4. Longitudinal section of a fragment. The perithallus is indistinct and visible only at the bottom. Slide no. I-b-145 20 ×

Pseudokomia cansecoensis gen. et sp. nov., figs. 5, 6

Fig. 5. Cross section, showing the hypo- and perithallus. Slide no. II-A-B-92-1 20 ×

Fig. 6. Longitudinal section of the thallus. Note the different orientation of the "threads" of the hypo- and perithallus. Slide no. II-A-B-92-1 16 ×



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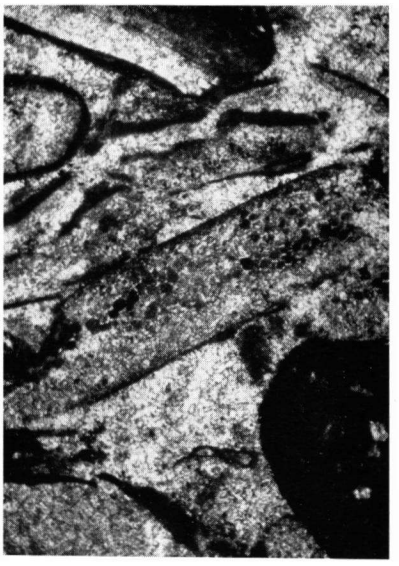

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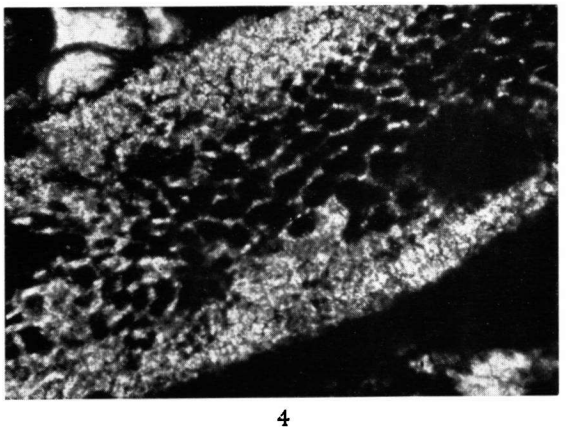

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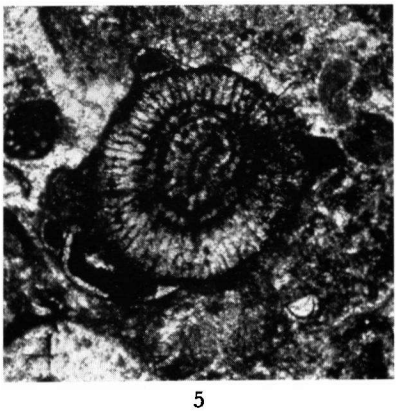

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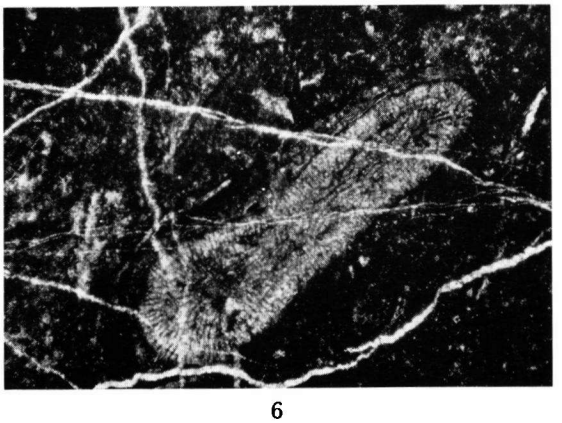

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PLATE X

PSEUDOKOMIA and ARCHAEOLITHOPHYLLUM

Pseudokomia cansecoenis sp. nov. figs. 1, 2, 3

Fig. 1. Cross section. Clear structure of the perithallus. Tissue of hypothallus not perceptible. Slide no. II-A-B-83 20 ×

Fig. 2. Oblique section of a fragment. Slide no. II-A-B-18 20 ×

Fig. 3. Cross section. Same specimen as in fig. 5 in the plate IX. Slide no. II-A-B-18

Archaeolithophyllum missouriensum JOHNSON, figs. 4, 5, 6

Fig. 4. Longitudinal section of a fragment. Tissue of the hypothallus is clearly visible. Slide no. II-A-160 20 ×

Fig. 5. Well-preserved fragment. Slide shows clearly the separation between the hypo- and perithallus. Slide no. II-A-160 20 ×

Fig. 6. Tangential section of the hypothallus. Slide no. II-A-160 20 ×

1

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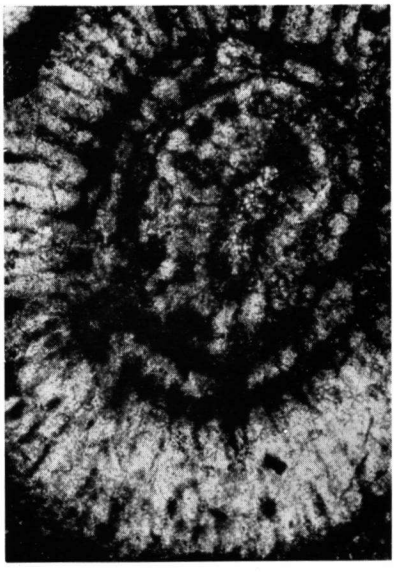

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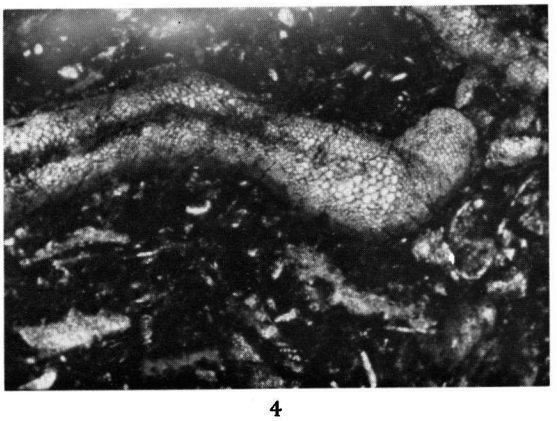

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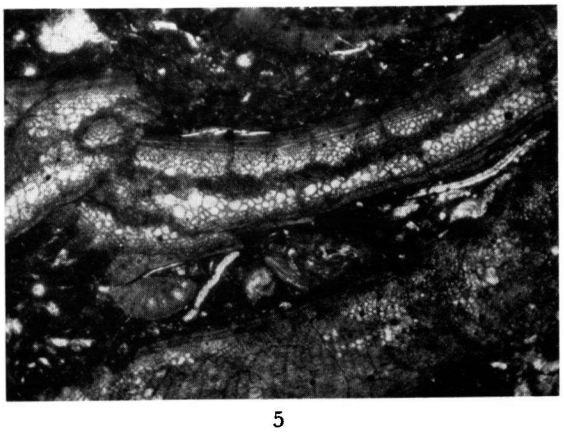

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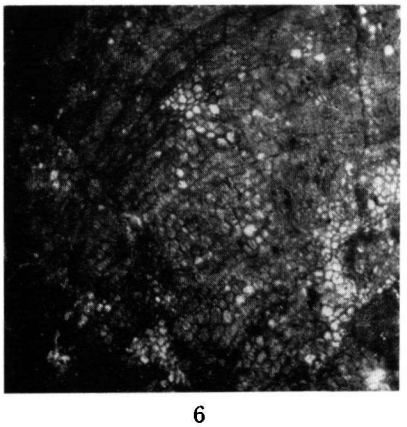

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PLATE XI

UNGDARELLA and PETSCHORIA

Ungdarella uralica MASLOV, figs. 1, 2

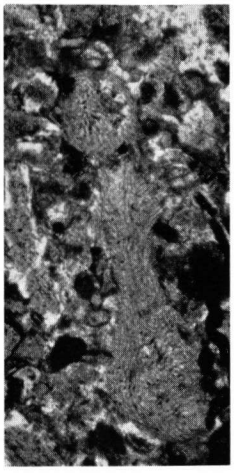
Fig. 1. Slide shows the tissue of the specimen. Slide no. I-28 16 ×

Fig. 2. Branching of the thallus. Slide no. I-a-96 16 ×

Petschoria elegans KORDE, figs. 3, 4, 5, 6

Figs. 3—4. Sections, showing the various forms of the thallus. Slides no. I-c-455 and I-c-455a 7 ×

Figs. 5—6. Cross sections. The inner part (hypothallus) shows a geopetal structure. Outer part (perithallus) shows filaments. Slide no. I-B-88 and I-b-98 20 ×



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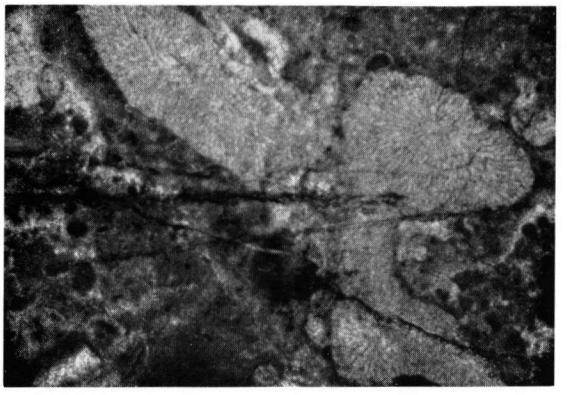

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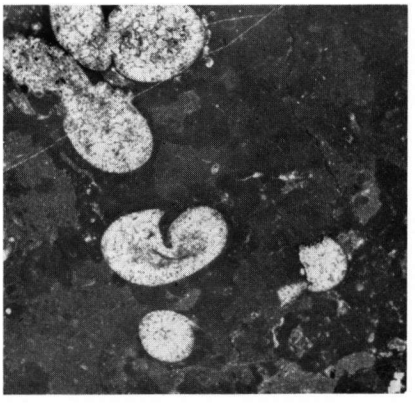

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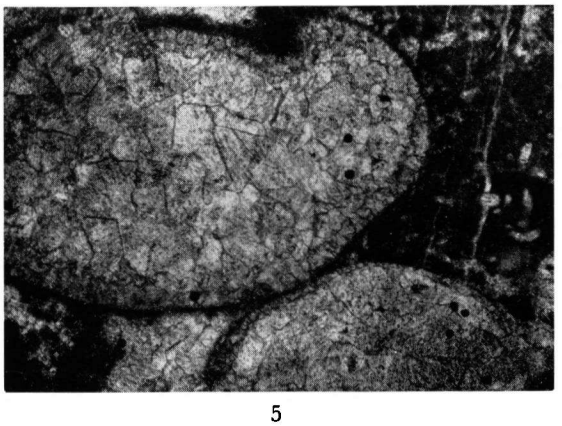

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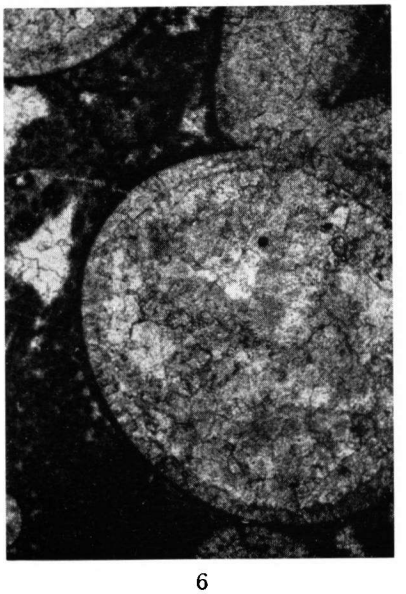

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PLATE XII

EUGONOPHYLLUM and KOMIA

Eugonophyllum mulderi sp. nov. figs. 1, 2, 3, 4

Figs. 1—2. Axial sections of two well preserved fragments. Slides show the characteristic construction of the specimens. Slide no. II-A-V-160 20 ×

Fig. 3. Various sections. Above to the right is a cross section. Slide no. II-A-V-160 16 ×

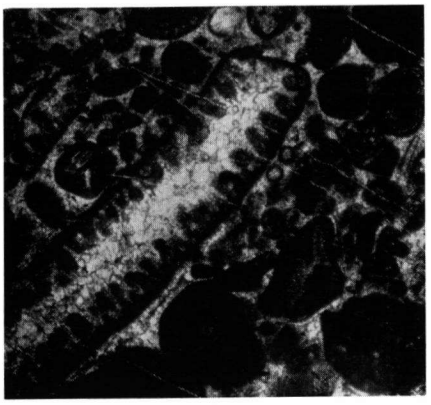
Fig. 4. Longitudinal section of the specimen. Slide no. II-A-V-160a 20 ×

Komia abundans KORDE, figs. 5, 6, 7

Fig. 5. Longitudinal section, shows the tissue of the thallus. Slide no. II-A-M-53 20 ×

Fig. 6. Slide showing two conceptacles. Slide no. 20 ×

Fig. 7. Thallus have branching, probably several conceptacles (dark) present. Slide no. II-A-M-53 16 ×



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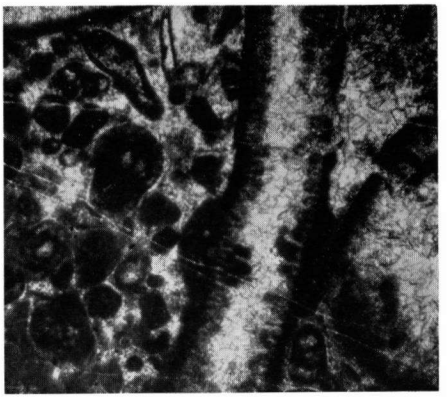

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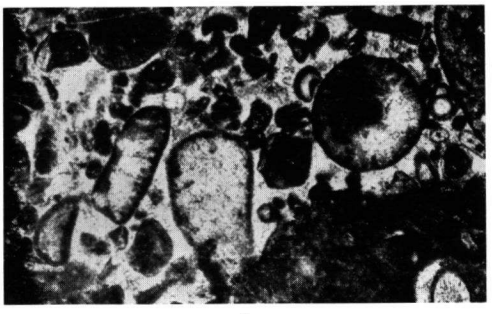

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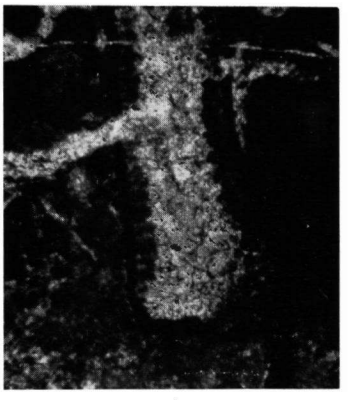

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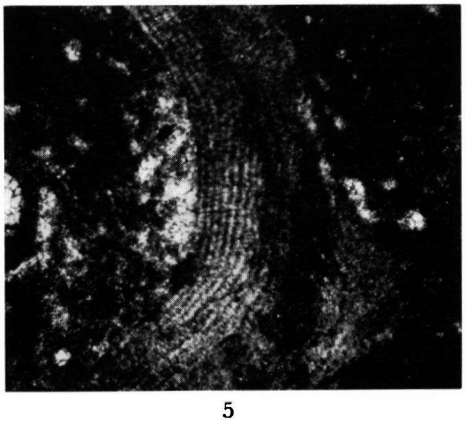

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PLATE XIII

KOMIA, OSAGIA, PYCNOSTROMA and GIRVANELLA

Komia abundans KORDE, figs. 1, 2 and 4

Fig. 1. Slide showing the cell-construction in an oblique cross section. Slide no. II-A-M-55 16 ×

Fig. 2. Detail of fig. 1 in this plate, showing the polygonal cells of the hypothallus and the quadrangle cells of the perithallus. Slide no. II-A-160 66 ×

Fig. 4. Longitudinal section. Probably a few conceptacles are present (dark). Slide no. II-A-160 16 ×

Osagia sp., fig. 3

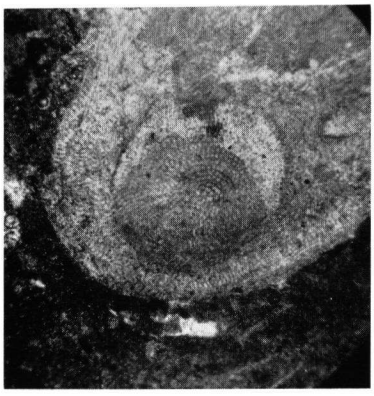
Fig. 3. Slide showing the fine tubes of a section of *Osagia*. Slide no. I-b-604 16 ×

Pycnostroma sp., fig. 5

Fig. 5. Section of *Pycnostroma*, showing the parallel layers growing around a fragment of brachiopod shell. Slide no. I-b-51 16 ×

Girvanella sp., fig. 6

Fig. 6. Slide showing the tubes of the specimen growing around a bryozoan fragment. Slide no. I-b-476 16 ×



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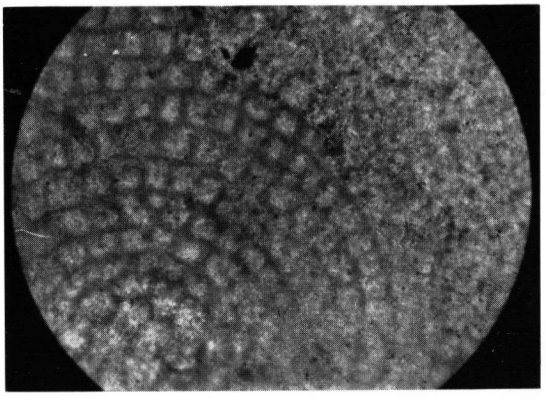

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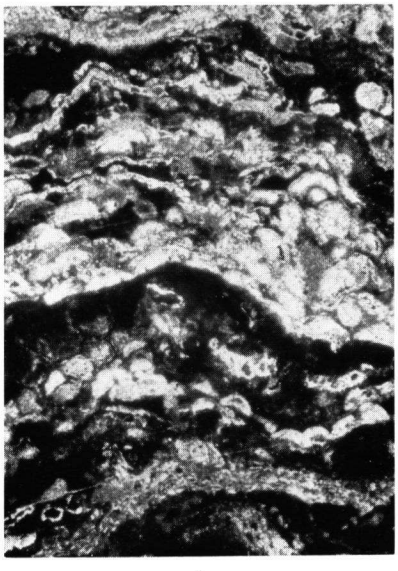

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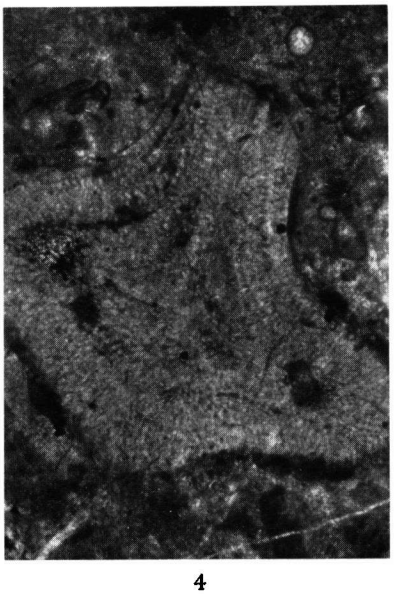

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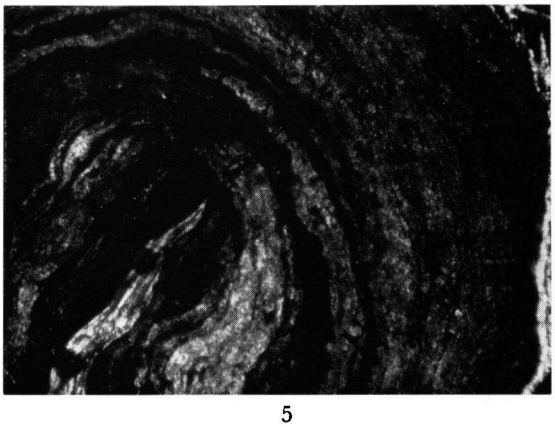

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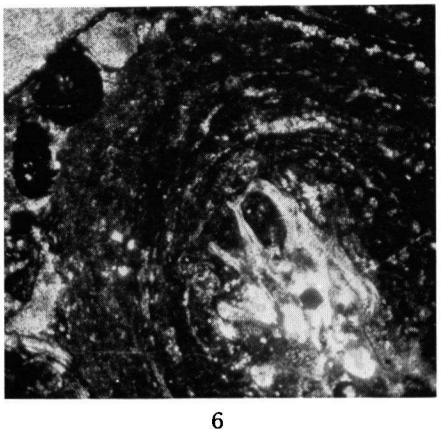

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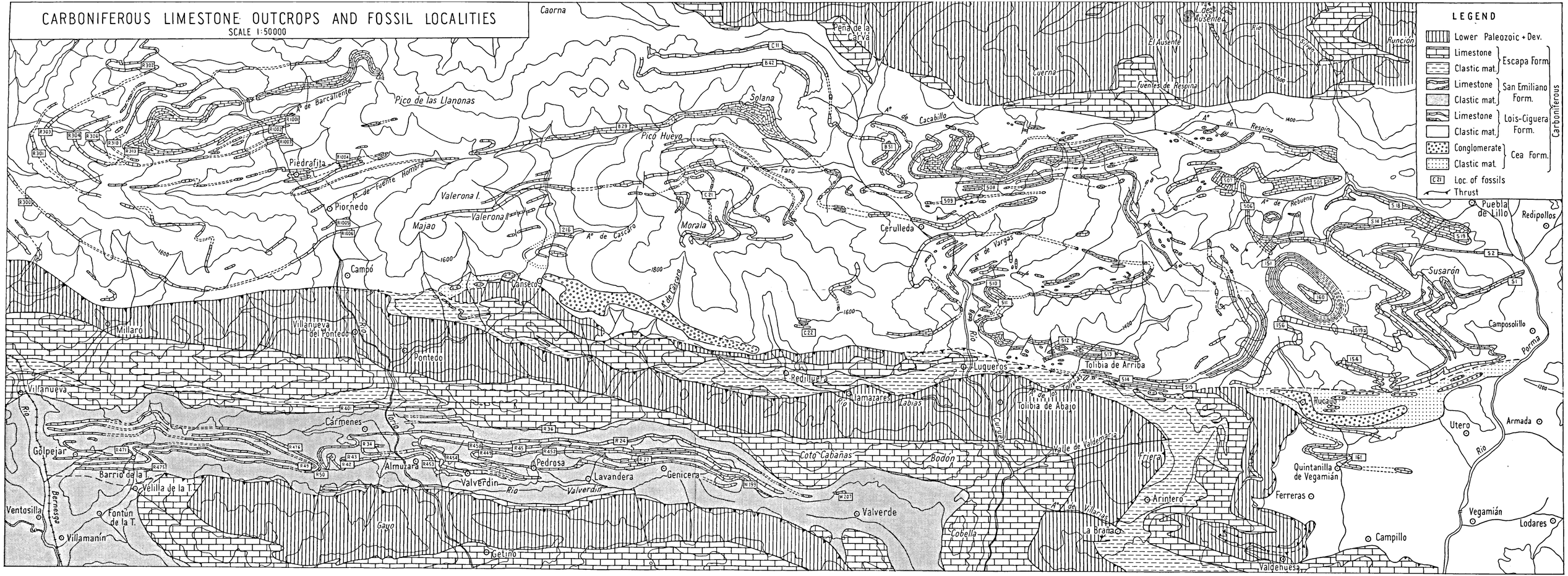

Map prepared by Geol. Dept. Leiden University