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# GÉOLOGIE ET PALÉONTOLOGIE

39

DU

# BASSIN HOUILLER DU GARD

PAR

M. C. <sup>✓</sup> GRAND'EURY

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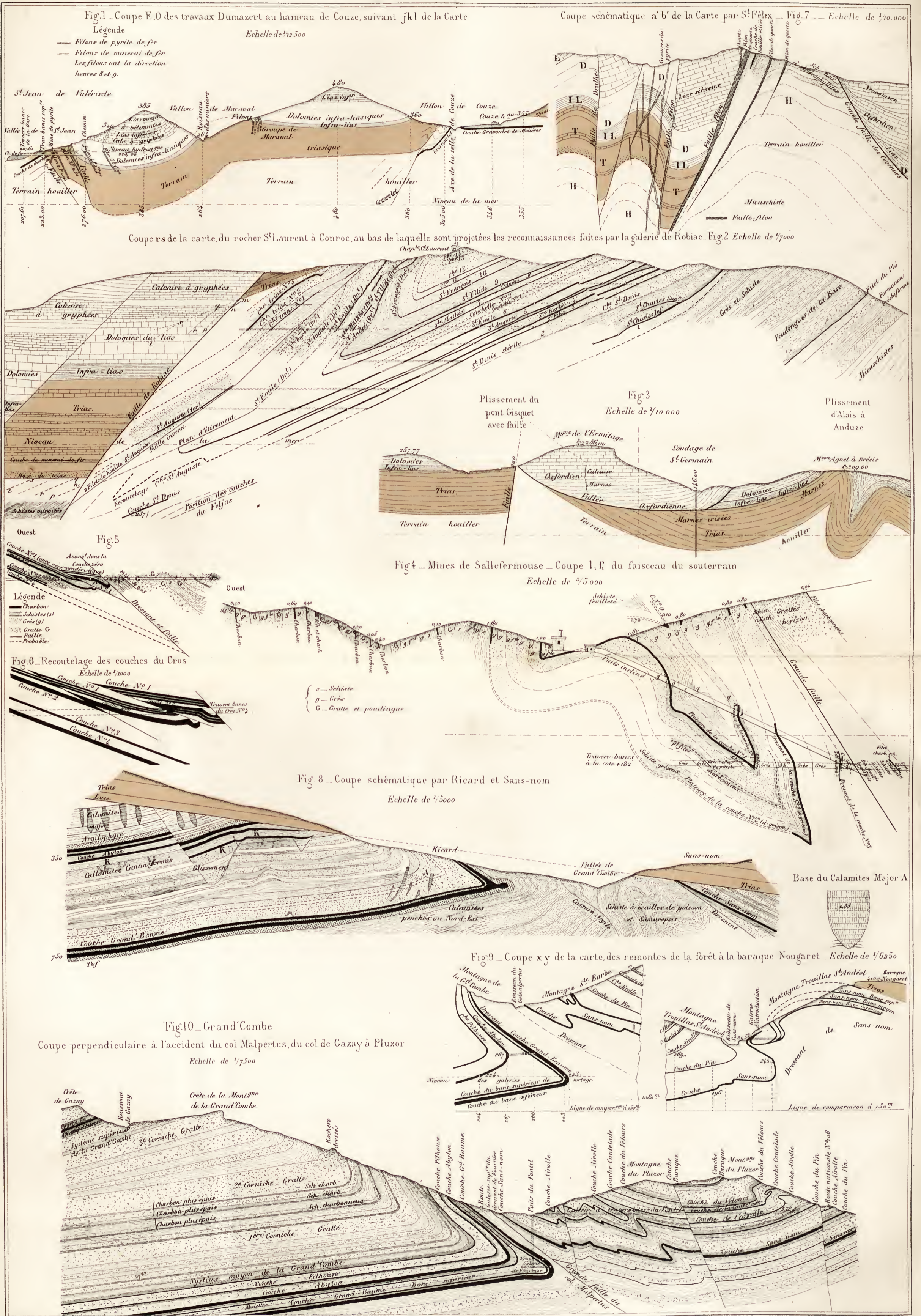
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**SAINT-ÉTIENNE**

IMPRIMERIE, LITHOGRAPHIE ET PAPETERIE FRÉDÉRIC LANTZ

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✓—  
1890



Coupes de terrains et accidents



Fig 1 - Couches de Pégère quartier des Pilhes

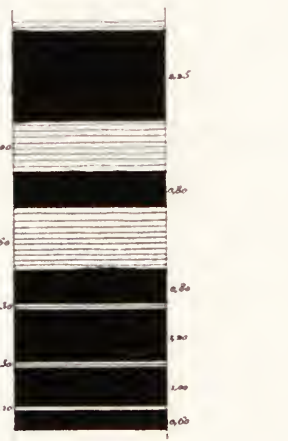


Fig 4

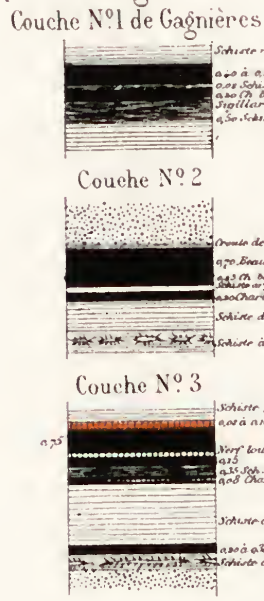


Fig. 16bis - Coupe générale du gisement de fer carbonaté spathique de Palmesalade

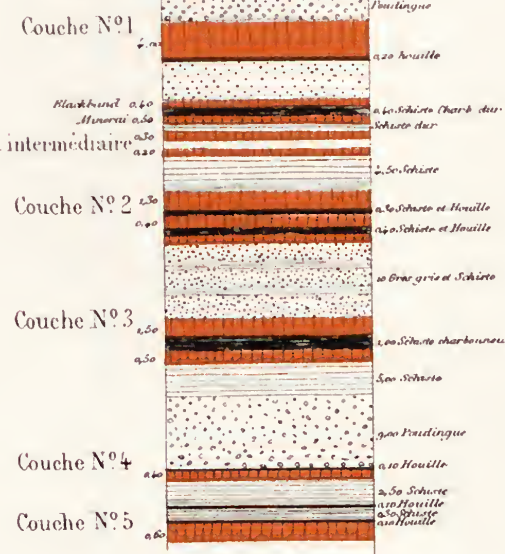


Fig. 16 Palmesalade - Minerai spathique Coupe du travers - bancs de la cheminée N°3 en dessus du niveau S<sup>t</sup> Paul

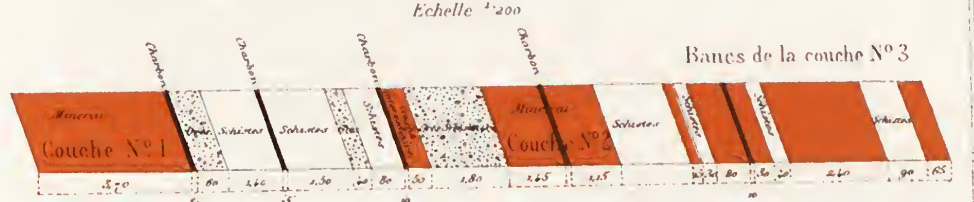


Fig 2 - Couches de Combelongue Couche inf<sup>re</sup> N°1

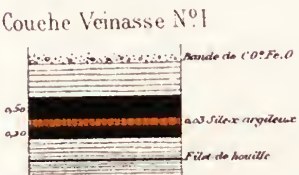
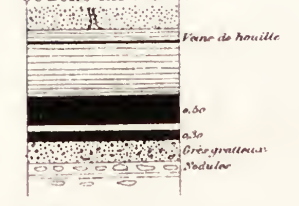


Fig 3 - Couches du Souterrain

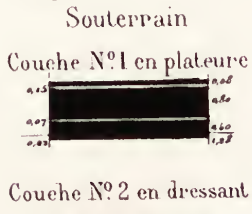


Fig. 14 - Couches de S<sup>te</sup> Barbe et de Laval

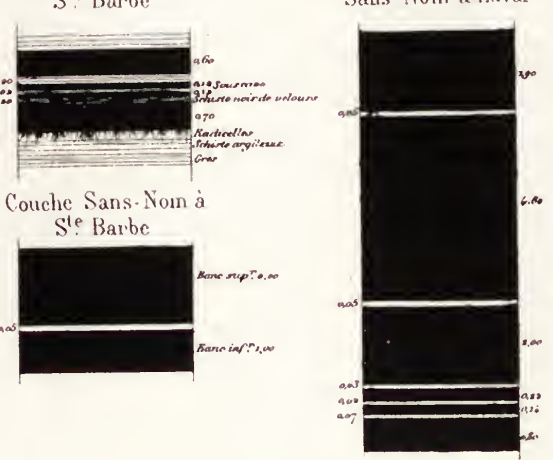


Fig 12 - Couche de Rochebelle N°5



Fig 10 - Couches de Fontanes

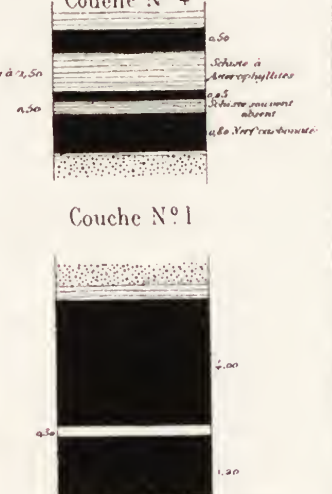
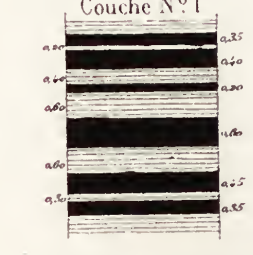


Fig 11 - Couches de Cendras



Couche du fond du puits de Fontanes



Fig 9 - Couches de S<sup>t</sup> Jean

Couche Michel dans la tranchée du chemin de fer

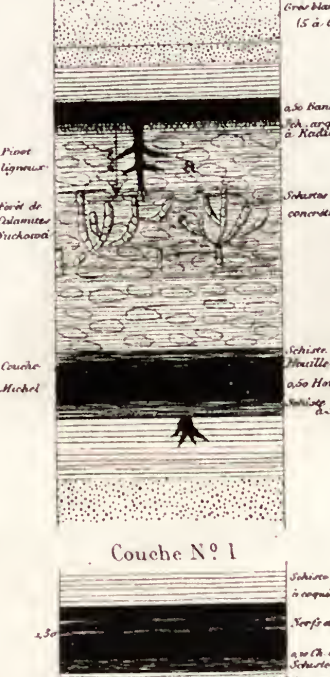


Fig 8 - Couches de Mohières

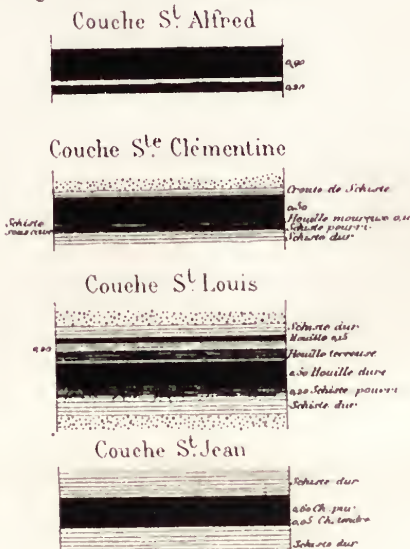
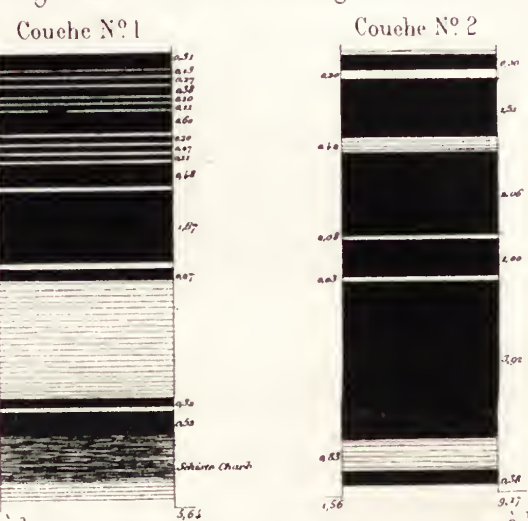


Fig. 15 - Couches du Sondaige de Ricard



Couche de Cendras N°2

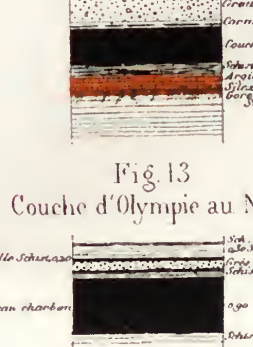


Fig 13 - Couche d'Olympie au N.E.



Fig. 6 - Couches de Lalle

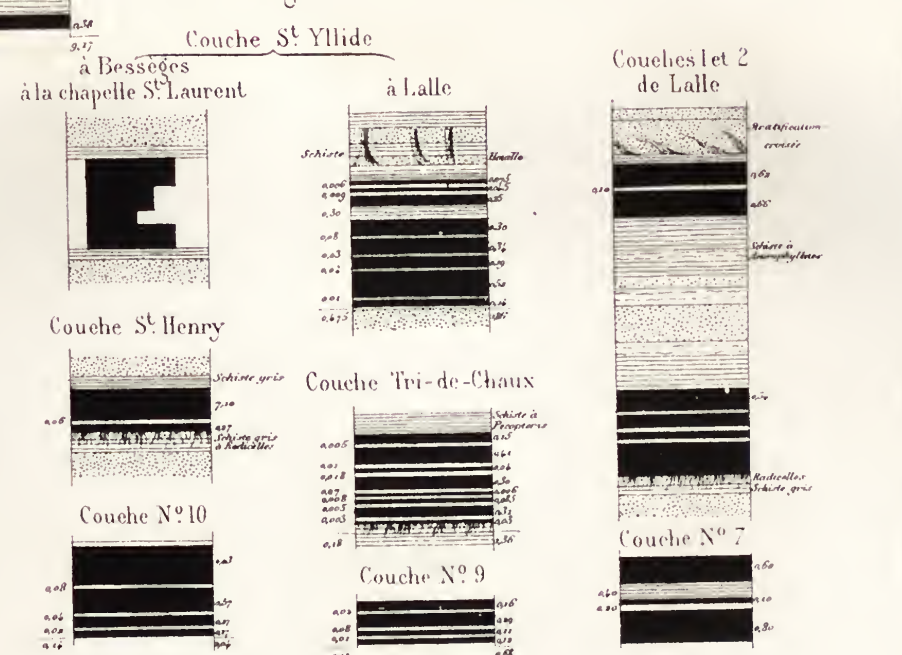
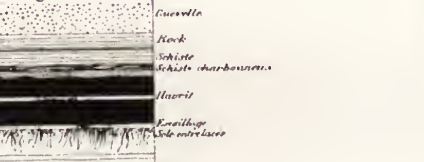


Fig. 5 - Couche des schistes miroités du Mas-Bleu



Fig 17



Stigmariopsis - Fig 20

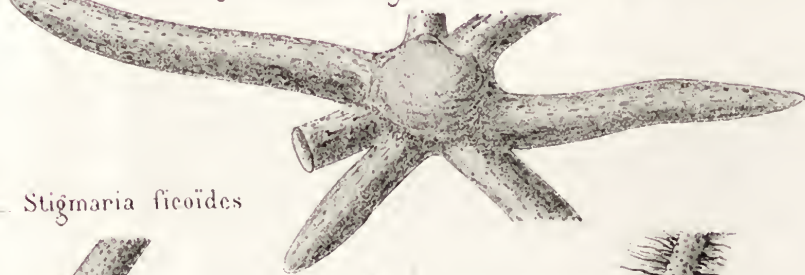


Fig 21 - Stigmaria ficoides

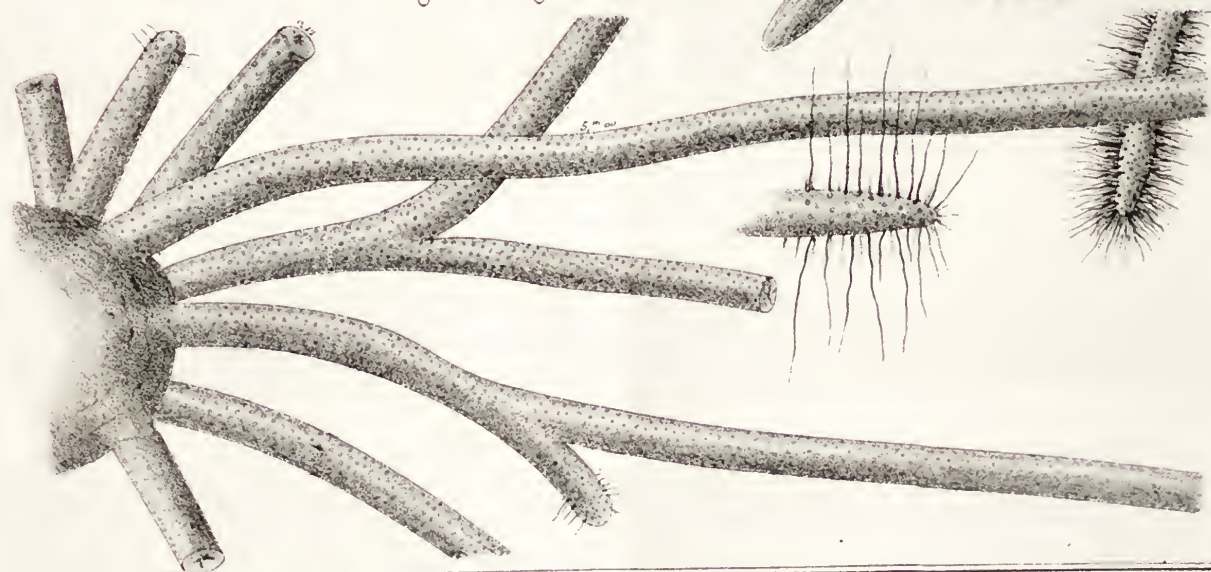
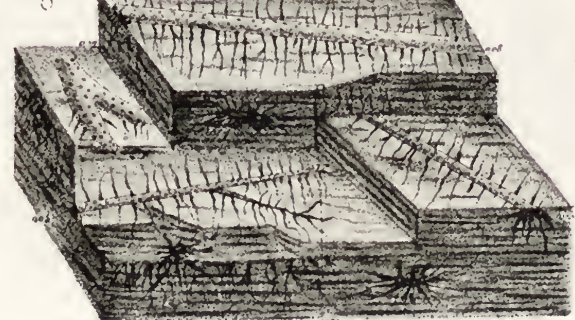


Fig 18 - Sole entrelacée de Stigmaria minor



Mohières

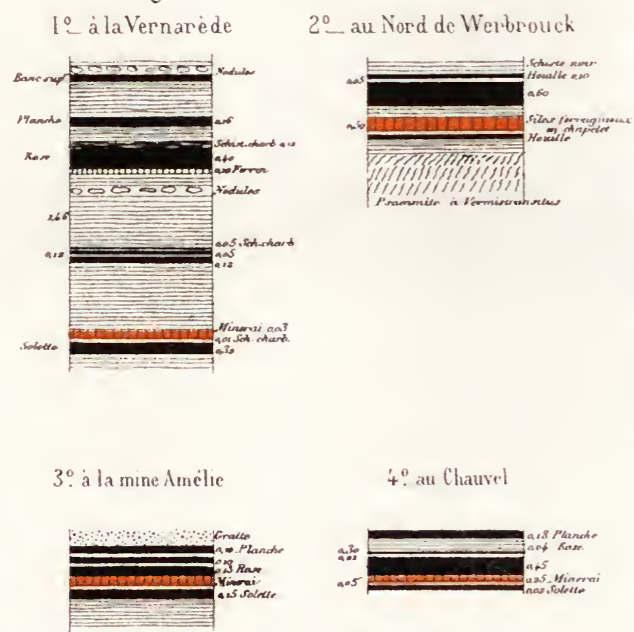
Fig 19



Fig 2 - Couche Abylon

Fig 1 - Couche Grand Baume

Fig. 13 - Couche Palmesalade



à la Trouche

à Ricard

à la Trouche

à Ricard

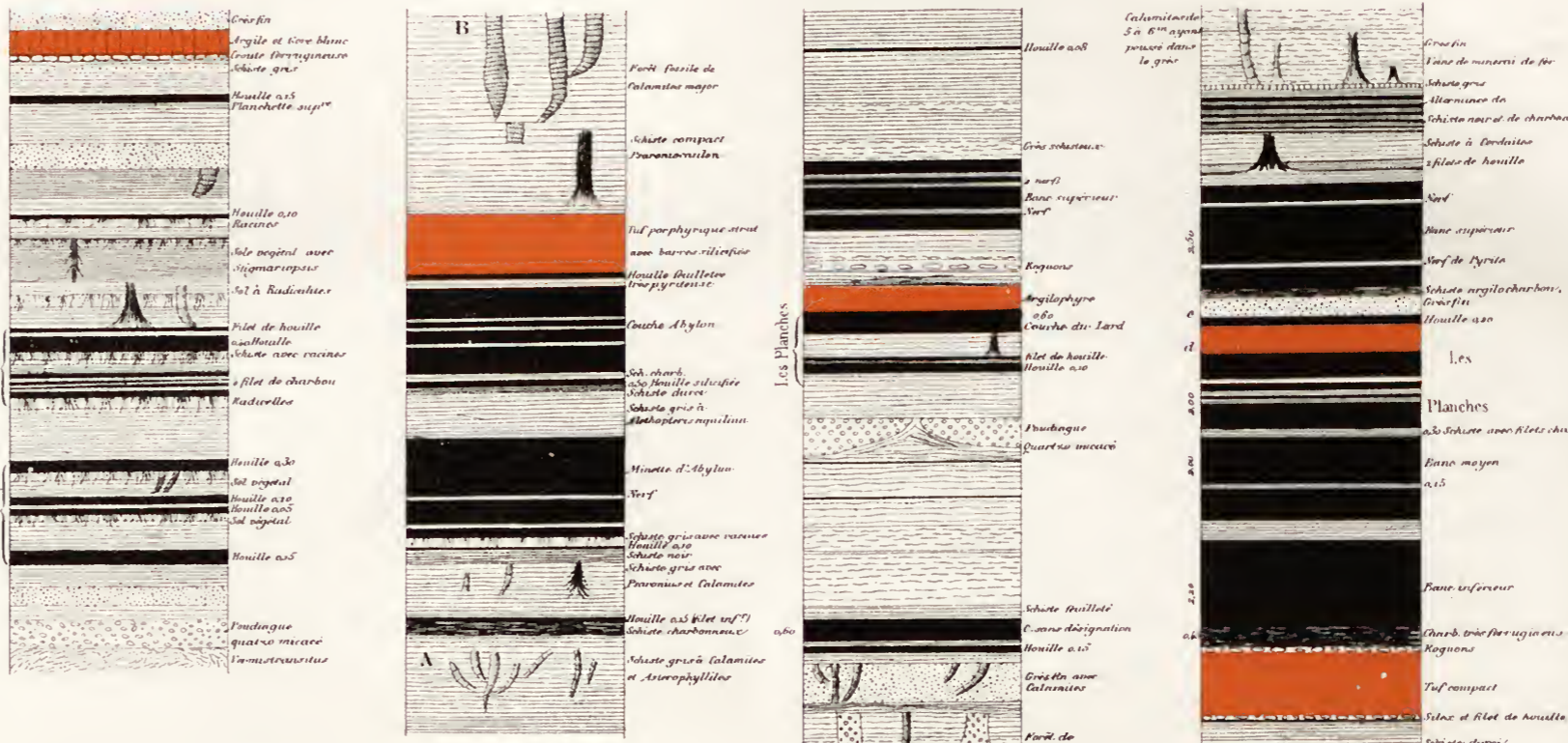


Fig 7 - Couche St Augustin

Fig 6 - Couche Chauvel

3° à Broussous

1° à la mine St Amélie

2° au puits Sud

à Cessous

Fig 3 - Couche Pilhouze au Ravin

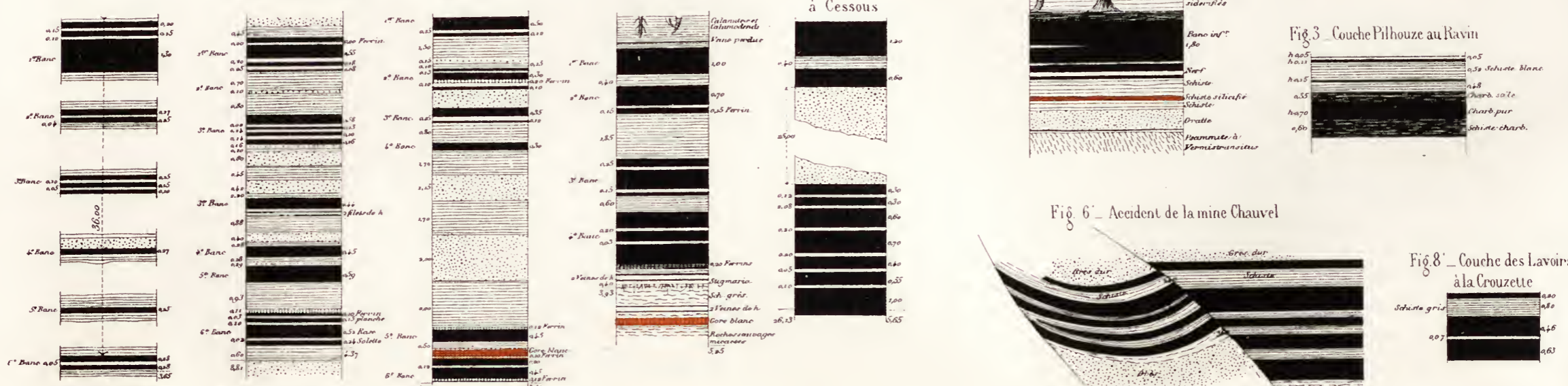


Fig 6 - Accident de la mine Chauvel

Fig 8 - Couche des Lavours à la Crouzette

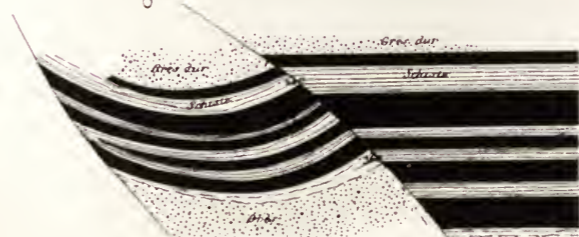


Fig 21 - Couche Blachères

Fig 18 - Couche Dumazert à Werbrouck

Fig 16 - Couche Canal

Fig 15 - Couche Jenny

Fig 10 - Couche Salze à Cessous

Fig 11 - Couche Rouvière maigre

Fig 8 - Couche des Lavours à la Carrière de l'Eglise

Fig 4 - Couche de Champelous aux Rosiers

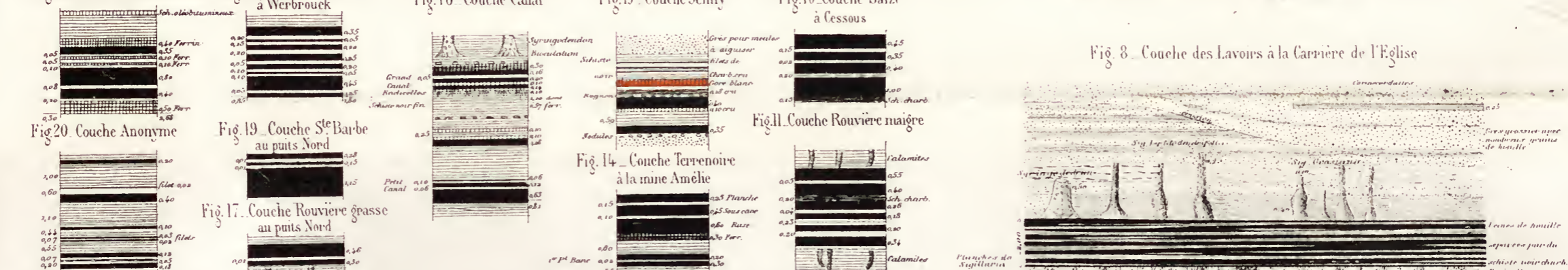


Fig 20 - Couche Anonyme

Fig 19 - Couche St Barbe au puits Nord

Fig 17 - Couche Rouvière grasse au puits Nord

Fig 14 - Couche Terrenoire à la mine Amélie

Fig 12 - Couche de la Forge

Fig 9 - Couche de la Crouzette

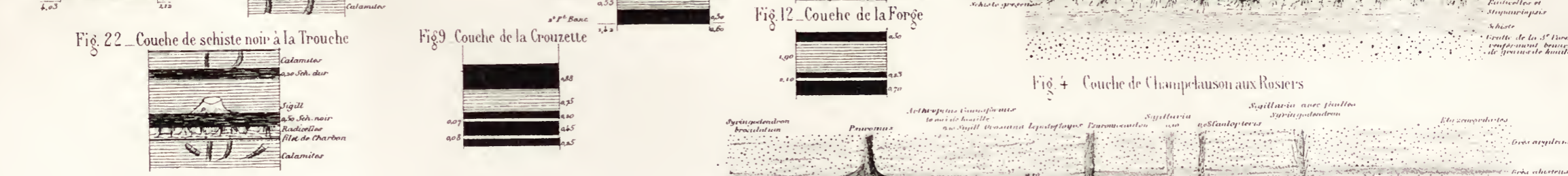


Fig 5 - Coupe prise à la Crouzette

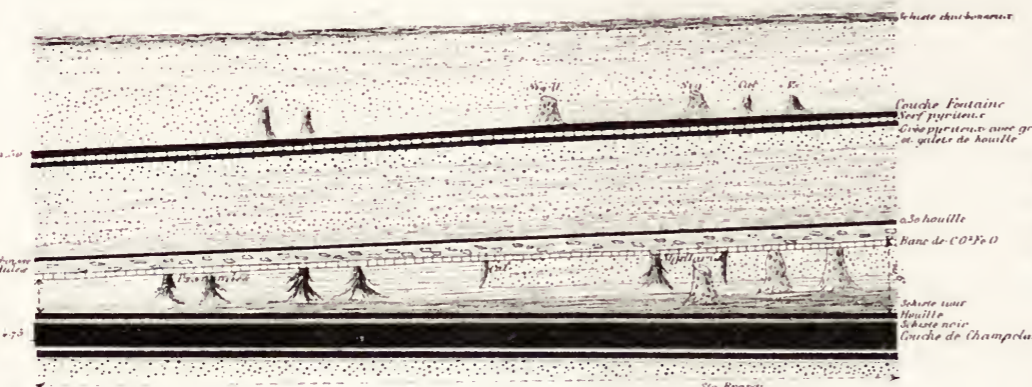


Fig 24 - Calamites Sukowii (St Jean)

Fig 25 - Calamites Cistii

Fig 26

Fig 27

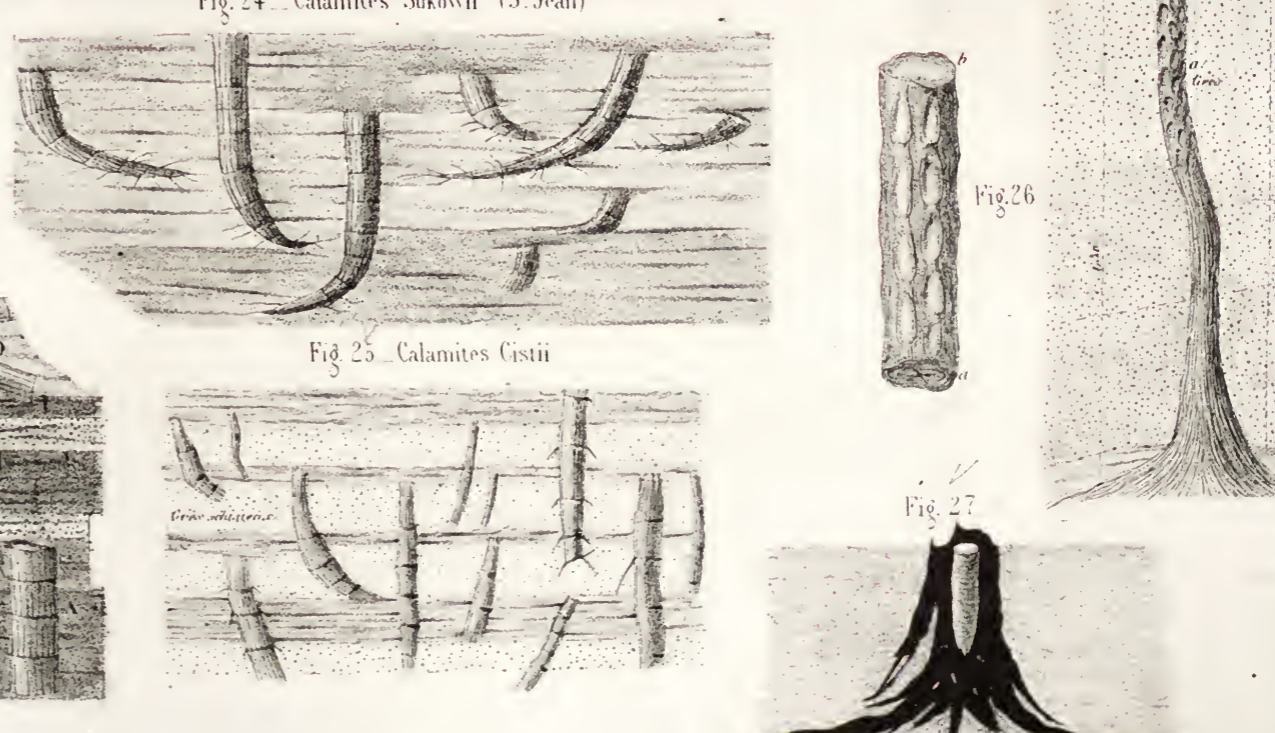
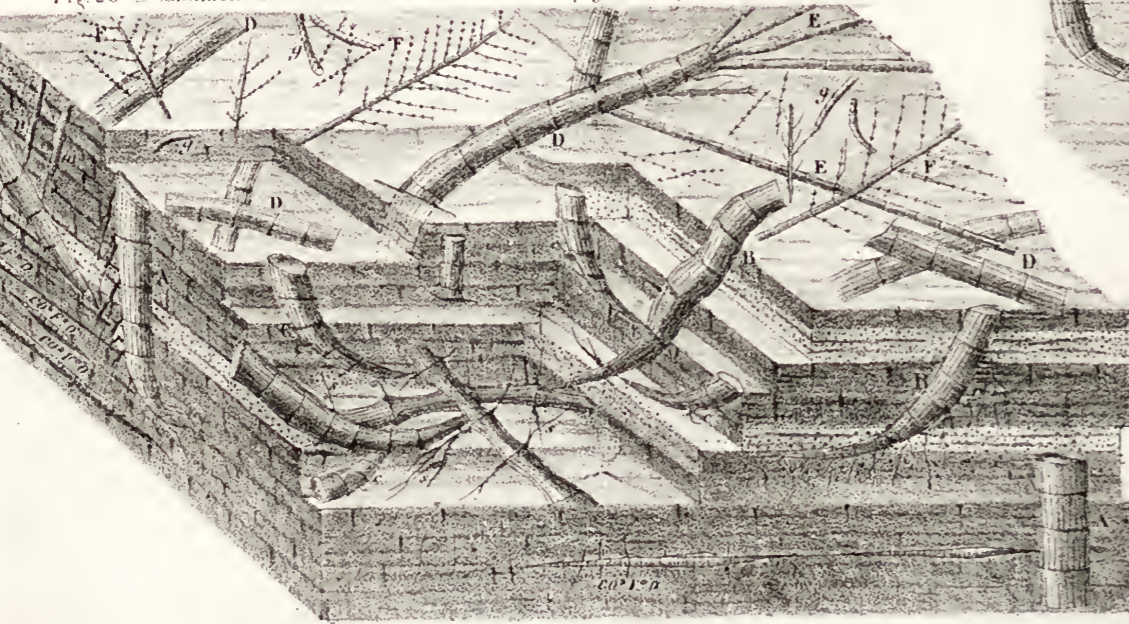


Fig 23 - Calamites Canuaformis enracinée et Asterophyllites equisetiformis (Ricard)





ROCHES PSEUDO-ORGANIQUES

Fig. 1, 2. Vermis transitus. — Fig. 3. Manière dont ils s'échangent et se pénètrent. — Fig. 4. Bacillarites Stur.  
 Fig. 5, 6, 7. Bacillarites sur empreintes végétales. — Fig. 8. Formes grossières, triées. — Fig. 9. Cristaux tordus et contournés.  
 Fig. 10. Structure de Bacillarites. — Fig. 11. Argilophyre à Bacillarites dans la Houille. — Fig. 12, 12', 12'', 12''', Gaudrya trivalvis n. sp.  
 Fig. 13. Graines variées sur une plaque de schiste. — Fig. 14, 14'. Tripterocarpus arcuatus, n. sp.



Fig. 1. *Pecopteris unita*, Br. - Fig. 2, 3, 4 et 5. *Parapecopteris nevropteridis*, n. sp.  
 Fig. 6. *Adiantites recentior*, n. sp. - Fig. 7. *Sigillaria Lepidodendrifolia*, Br.  
 Fig. 8. *Botryoconus*, Gop. - Fig. 9. *Stigmaria Minor*, Gein.  
 Fig. 10 et 11. *Sigillaria Maurici*, n. sp. - Fig. 12. *Sphenophyllum filiculme*, Lesq.  
 Fig. 13. *Bryon crispatum*, Gr.

Photogravure A. Hervier, Paris.





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Fig. 1, 2, *Polypterocarpus*. - Fig. 3, 4, *Codonospermum*. - Fig. 6, *Rhabdocarpus*. - Fig. 5, 7 et 7' *Carpolithes*.  
 Fig. 8, *Samaropsis*. - Fig. 9, *Gnetopsis*. - Fig. 10, *Cordaianthus*. - Fig. 11, *Nöggerathia*.  
 Fig. 12, 13, *Dicranophyllum tripartitum*, n. sp. - Fig. 14, 15, 16, *Cordaites*. - Fig. 17, *Lepidofloyos laricinus*, Stern.  
 Fig. 18, *Psaronius Alesiensis*, n. sp. - Fig. 19, *Taeniopteris Ardesica*, n. sp. - Fig. 20, *Pecopteris gracillima*, n. sp.  
 Fig. 21, 22, *Crossotheca aequabilis*. - Fig. 23, *Hawlea stellata*. - Fig. 24, *Stichocarpus*. - Fig. 25, 26, *Parapecopteris nevropteridis*, n. sp.  
 Fig. 27, *Unio*.

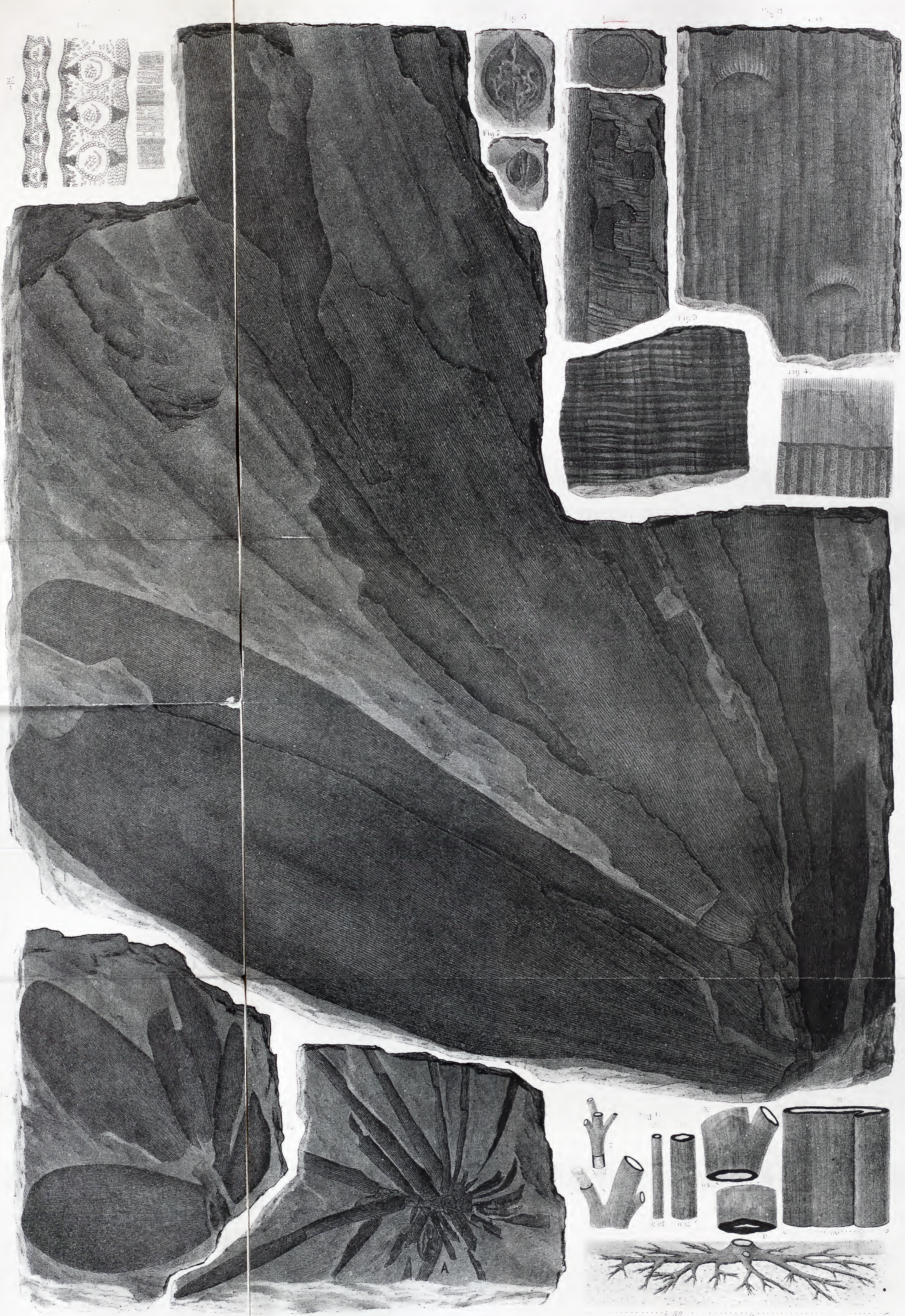


Fig. 1, 2, 3. *Cordaites lingulatus* Gr. - Fig. 4. *Cordaites crassifolius* Gr. Fig. 5. *Poa-Cordaites linearis* Gr. (A. *Carpolithes disciformis*, Stern)

Fig. 6. *Cordaicarpus excelsus*, n. sp. - Fig. 7. *Cordaicarpus Gultieri* Gein - Fig. 8. *Cordaieladus distans*, n. sp. - Fig. 9. *Artisia angularis*, Daw.

Fig. 11. *Cormocordaites*. - Fig. 12. *Rhizocordaites*. *Fig. 10. Artisia octogona*. See page 318

Fig.1



Fig.4

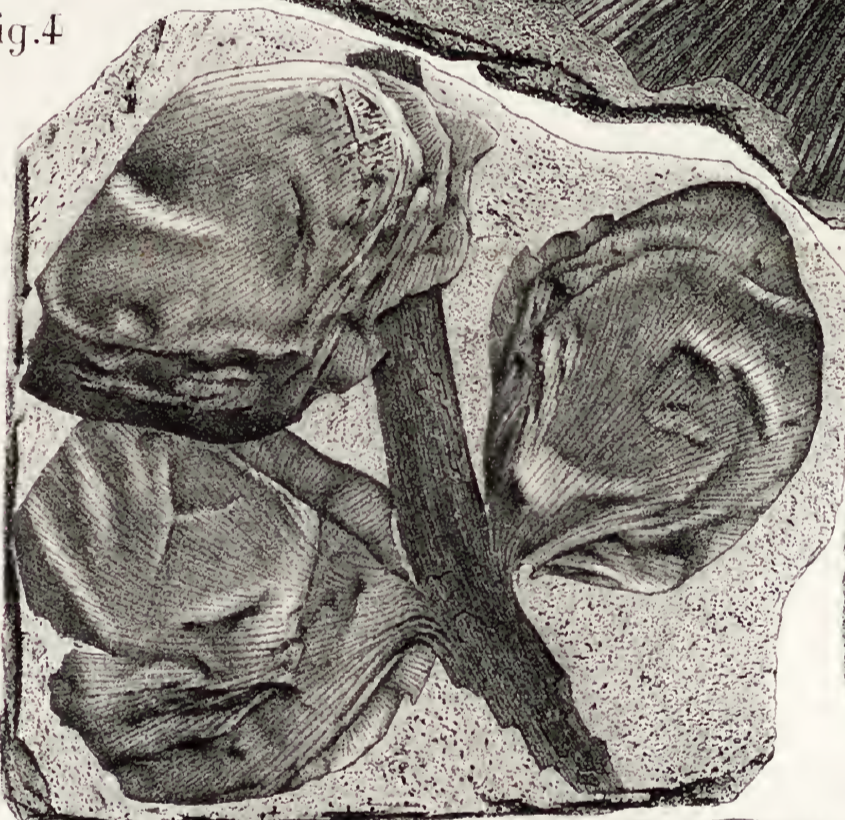


Fig.3



Fig.5



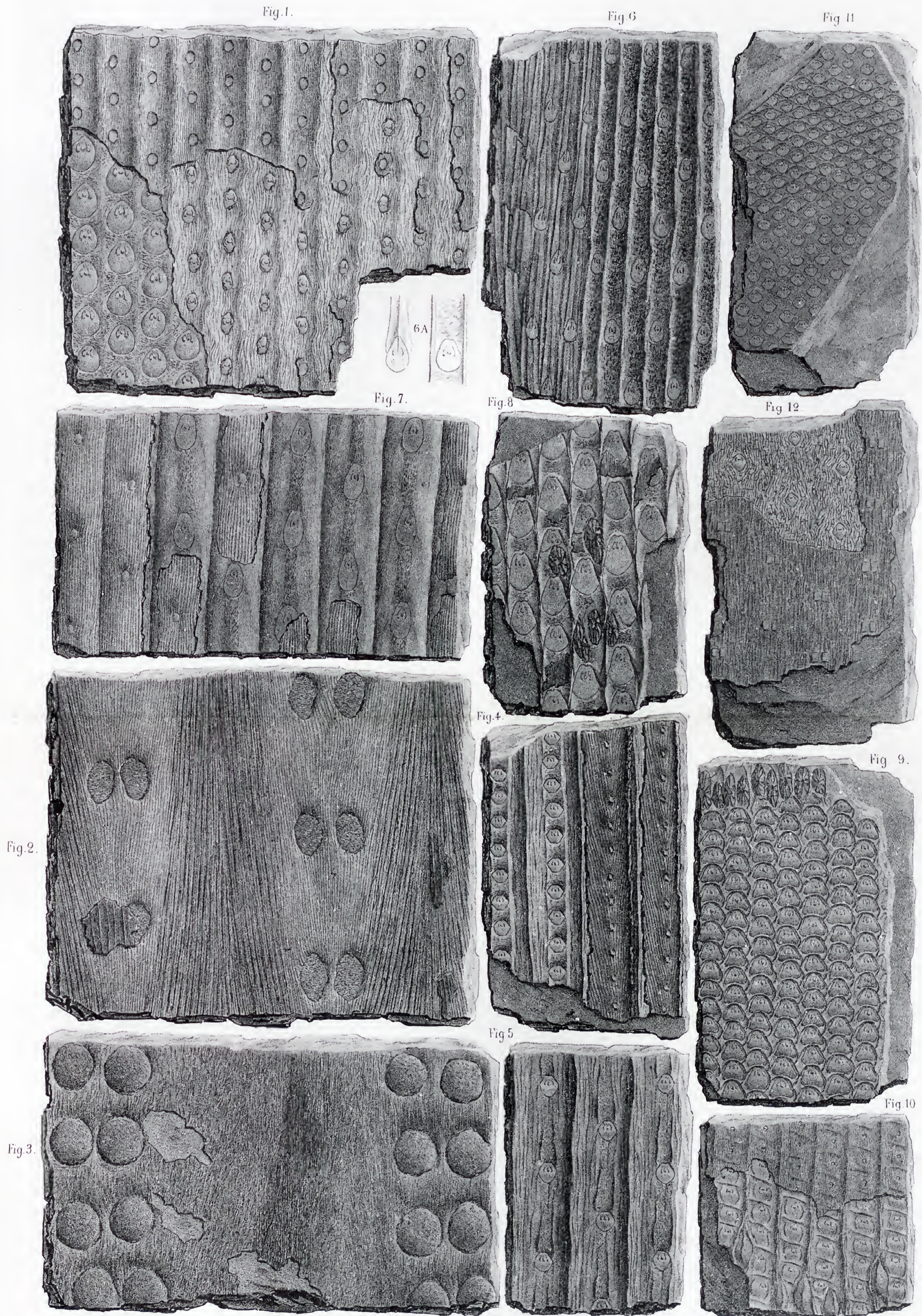
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Fig.1. *Doleropteris pseudopeltata*, Gr. — Fig.2. *Discostachys Cebennensis*, n.sp.  
 Fig.3. *Pachytesta gigantea*, Br. — Fig.4. *Noggerathia Graffini*, n.sp.  
 Fig.5. *Cannophyllites simplicinervis*, n.sp.



Fig. 1. *Caulopteris peltigera*, Br. cf. — Fig. 2. *Protopteris Cebennensis* n. sp.  
 Fig. 3. *Lepidodendron dilatatum* n. sp.  
 Fig. 4, 5, 6. *Pseudosigillaria monostigma*, Lesq — Fig. 7, 8. *Ps. dimorpha*, n. sp.  
 Fig. 10. *Ps. lepidendroides*.

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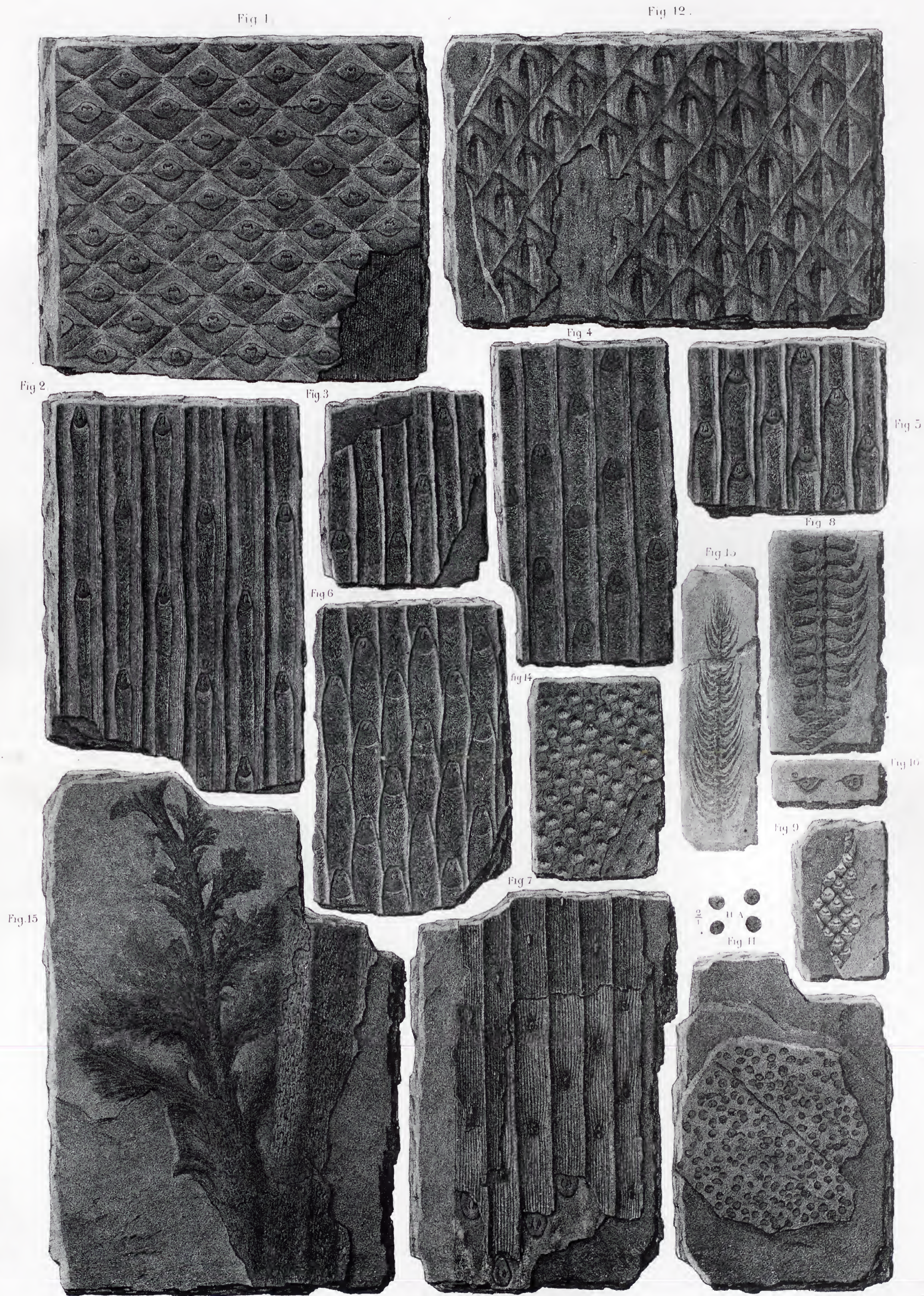
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Fig. 1. *Syringodendron cyclostigma*, Br. et *Sigillaria Mauricii*, Gr. Fig. 2. *Syringodendron defluens*, n. sp.  
 Fig. 3. *Syringodendron bioculatum*, Gr. Fig. 4, 5. *Sigillaria nemosensis*. Fig. 6. *Sigillaria Cortei*, Br.  
 Fig. 7. *Sigillaria Candollei*, Br. Fig. 8, 9. *Sigillaria formosa*, n. sp. Fig. 10. *Sigillaria tessellata*, Br.  
 Fig. 11, 12. *Sigillaria Grasiana*, Br.



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Fig. 1, 2, 5, Tiges, rameaux, épis et feuilles de *Sigillaria Brardii*, Br.  
 Fig. 4, *Catenaria decora*, stern. et *Sigillaria Brardii*, Br. en connexion.  
 Fig. 5, *Sigillariostrobilus pedicellifolius*, n. sp. Fig. 6, *Sigillaria Defrancei*, Br. v. *delineata*.  
 Fig. 7, *Sigillaria minutissima*, n. sp. *Sig. Mauricii*, n. sp.



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Fig. 1. *Sigillaria quadrangulata*, Schlot. — Fig. 2. *Sigillaria rugosa*, Br. — Fig. 3, 4, 5. *Sigillaria scutellata*, Br.  
 Fig. 6. *Sigillaria Sillimanni*, Br. — Fig. 7. *Syringodendron Brongniarti*, Geniz. et *Sigillaria Lepidodendrifolia*, Br.  
 Fig. 8, 9, 10. *Sigillariostrobilus mirandus*, Gr. — Fig. 11. *Flegmingites*. — Fig. 12. *Lepidodendron quadrangulatum*.  
 Fig. 13. *Lepidodendron herbaceum*. — Fig. 14. *Stigmaria Anglica*, Stern. — Fig. 15. *Schizopteris*.

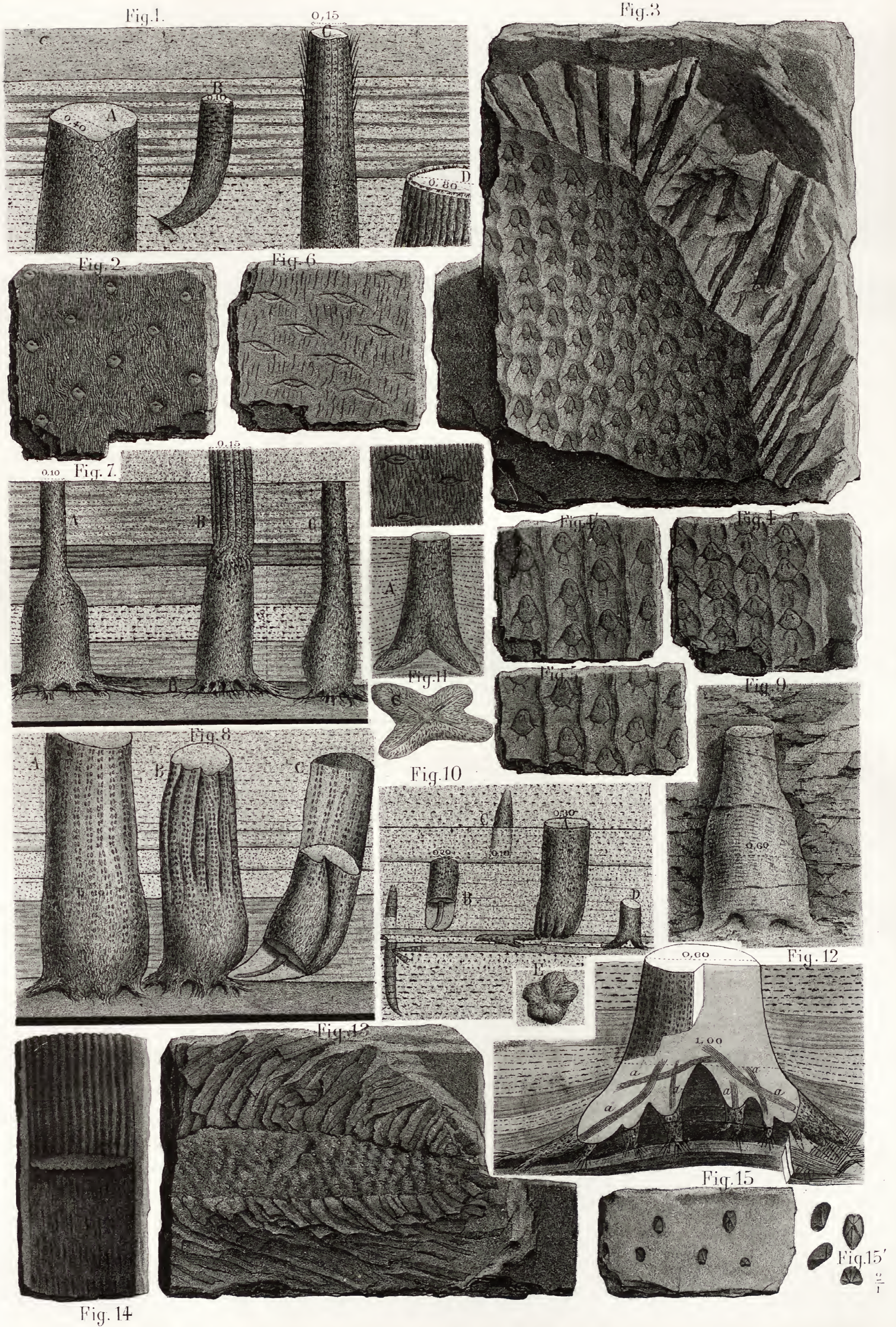
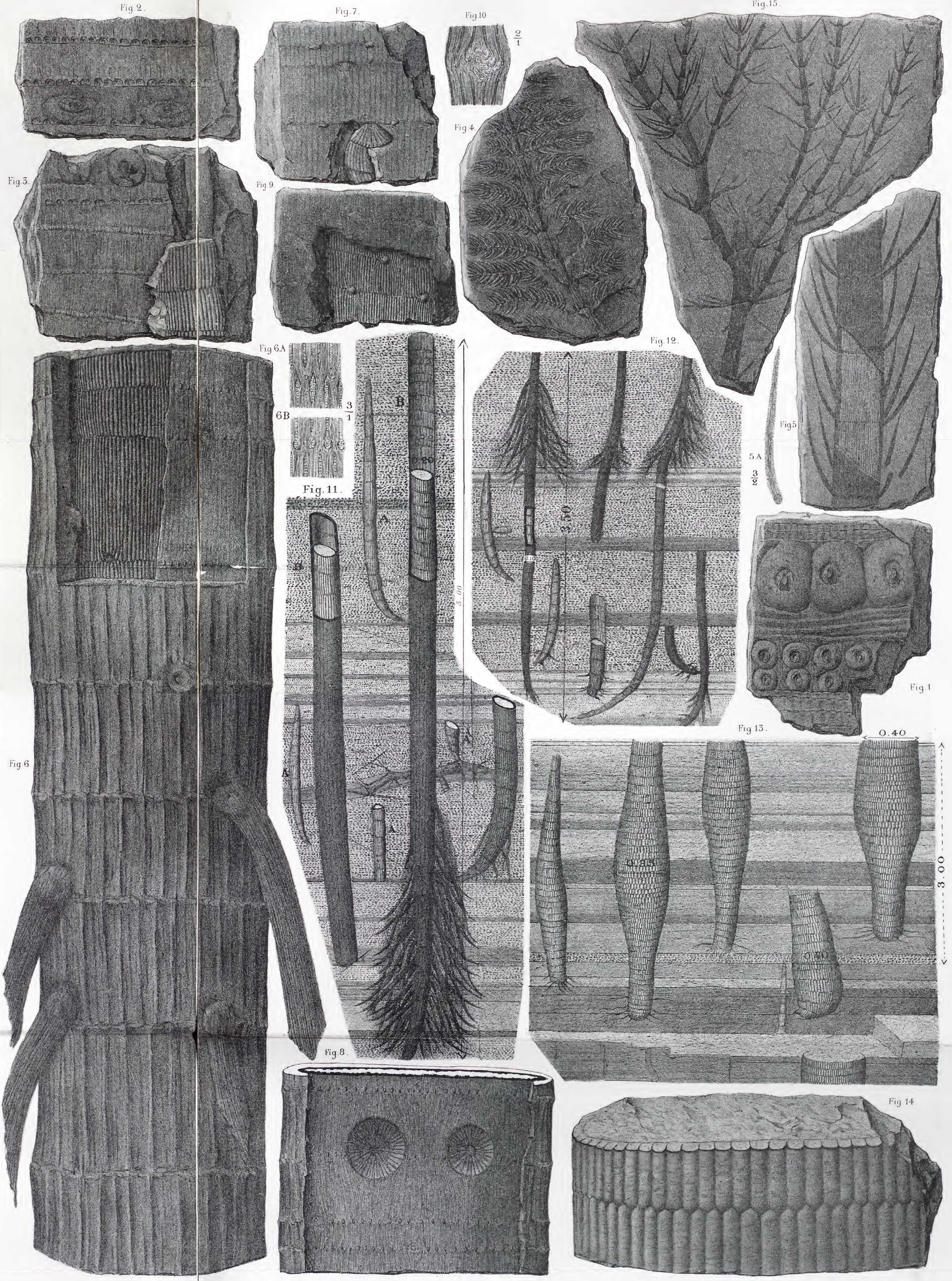


Fig. 1A, Fig. 2. *Sigillaria Grasiiana*, Br. — Fig. 1.C. Fig. 7B. Fig. 3, 4, 4' et 5. *Sigillaria Mauricii*, n.sp.  
 Fig. 8 et 12. *Syringodendron bioculatum*, n.sp. — Fig. 7 B, Fig. 13. *Stigmaria Eveni*, Lesq.  
 Fig. 15 *Leaia Leidyi*, Jones. Fig. 10, 11, 12. premier, deuxième et troisième stades de développement des Sigillaires.

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ARTHROPITUS

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Fig. 1. Calamophyllites Geinitzi. Gr. Fig. 2. 3 C. Varians Germ. — Fig. 4. 5, Asterophyllites densifolius. Gr.  
 Fig. 6. 7. 8. Arthropitus Parrani. n. sp. — Fig. 13. 14. Calamites major. Weiss.  
 Fig. 11. Forêt fossile de Calamites Cannaeformis. Schlot et pachyderma. Br. — Fig. 12. Forêt fossile de Calamites & Arthropitus. Cannaeformis.  
 Fig. 15. Calamocladus descipiens n. sp.

Fig. 9. Arthropitus pseudo-variatus (see text p. 212)  
 Fig. 10. Calam. undulosa fallax n. sp. (see text p. 213)



CALAMODENDRON

Fig. 1, 2, *Calamites Cistii*, Br. - Fig. 3, 4, 5, 6, *Calamites foliosus*, Gr.  
 Fig. 7, 8, 9, 10, *Calamocladus parallelinervis* n. sp. - Fig. 11, v. *fluctuans*. - Fig. 12, *Calamocladus penicillifolius*, n. sp.  
 Fig. 13, 14, *Calamostachys vulgaris* n. sp. - Fig. 15, *Calam. capillamentis*. - Fig. 16, *Calamostachys tenuissima* n. sp.  
 Fig. 17, *Calam. squamosa*. - Fig. 18, *Calamostachys Marii*, n. sp.



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*Calamocladus frondosus*, n.sp.



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Fig. 1. *Arthropites* - Fig. 2. *Calamodendrea rhizobola*, Gr. - Fig. 3. *Calamites suckowii*, Br.  
 Fig. 4. *Asterophyllites equisetiformis*, Schl. - Fig. 5. *Calamocladus* - Fig. 6. *Annularia elegans*, n. sp. - Fig. 7. *Bruckmannia fertilis*, n. sp.  
 Fig. 8. *Macrostachya* - Fig. 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19. *Autophyllites furcatus*, n. sp.  
 Fig. 20. *Sphenophyllum nageli*, n. sp. - Fig. 21. *Sphen. papillionaceum*, n. sp. - Fig. 22. *Sph. capillaceum*, Weiss.

Fig.1



Fig.2



Fig.3

Fig.4



Fig.1. *Megaphytum insigne*, Lesq. — Fig. 2. *Meg. didymogramma*, Gr.  
Fig.3. *Megaphytum anomalum*, n.sp. — Fig. 4. *Caulopteris minor*, Sch.

Fig. 10.

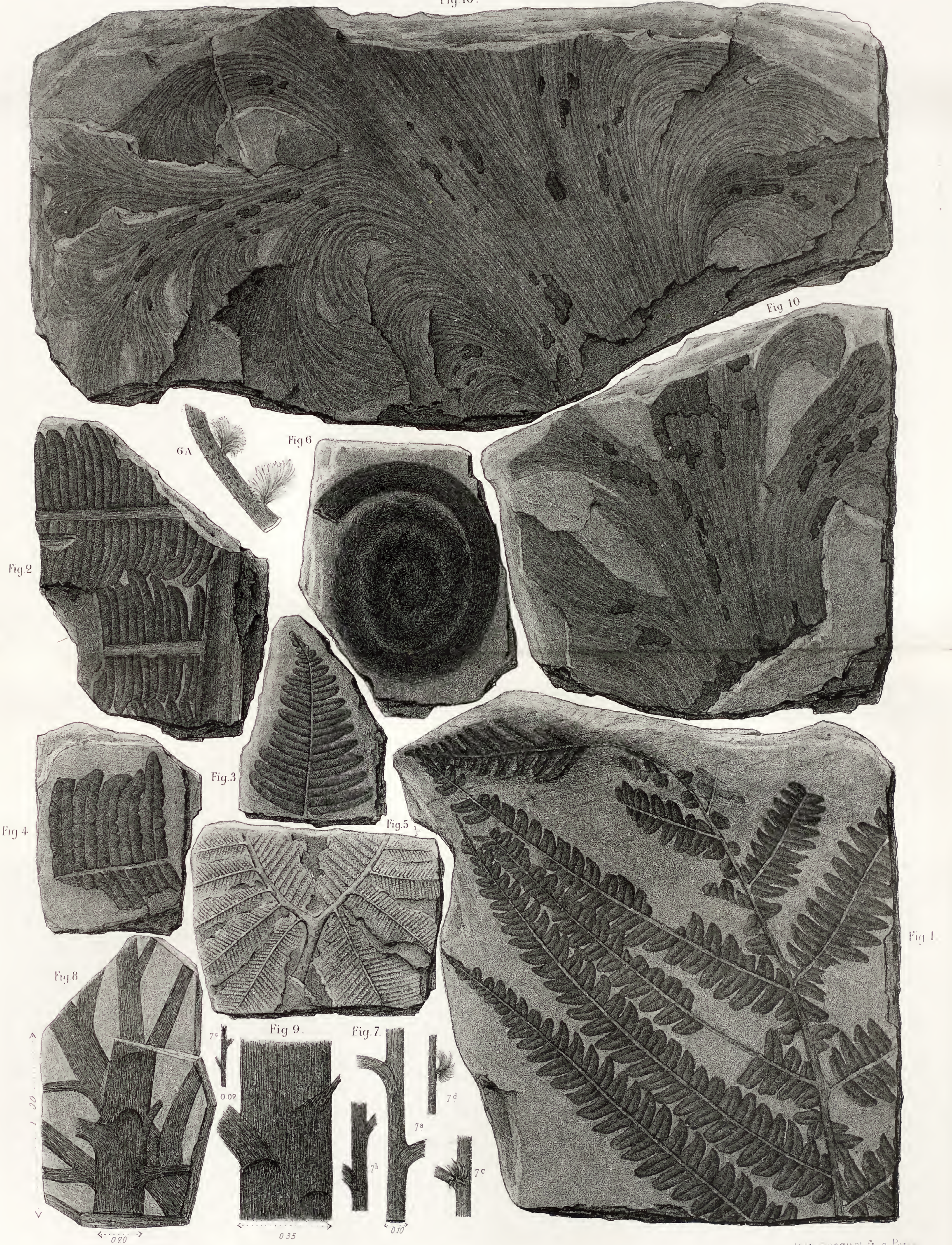


Fig. 1. *Callipteridium ovatum*, Br. — Fig. 2, 3, 4. *Alethopteris gigas*, Gutbier, v. *densifolium*, Br.  
 Fig. 5, 6, 7. *Odontopteris Reichiana*, Gutb. — Fig. 8, 9. *Aulacopteris vulgaris*, Gr. — Fig. 10. *Schizopteris rhipis*, Gr.

Fig. 10. Schizopteris rhipis, Gr.

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Fig. 1. *Pecopteris truncata*, Grm. — Fig. 2, 3. *Pecopteris Platoni*, Gr — Fig. 4. *Pecopteris abbreviata*, Br.  
 Fig. 5, 6. *Alethopteris magna*, n. sp.

Fig. 3

Fig. 2.

Fig. 1



Fig. 4

4A

Fig. 5.

Fig. 6.

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Fig. 1, 2. *Nevropteris Cordata*, Br. — Fig. 3, 4, 5, 6. *Alethopteris aquilina*, Br.





Fig. 1. *Pseudosigillaria dimorpha*, n. sp. — Fig. 2. *Nevropteris Guardinis*. — Fig. 3. *Spirangium ventricosum*.  
 Fig. 4. *Estheria Cebennensis*. — Fig. 5. *Anthracomya unioides*. — Fig. 6. *Etoblattina*, Scudder. — Fig. 7. Galeries d'insecte.