

PLATE 41.

MICHELINIA CLAPPI.

Devonian.

1. Vertical section of a fragment, showing the tabulate septa extraneous to the coralllets' walls; from the ferruginous clay of the Middle Devonian, near Louisville. Collection of the author.
2. Upper surface of a fragment from the same horizon as example 1, near Louisville. Collection of the author.

PROCTERIA (Nov. Gen.) MICHELINOIDEA, N. S.

Devonian.

3. 4. Upper surfaces of coralla.
5. Lateral view of a corallum.
6. Under surface of a corallum, showing the papillose exothecal secretion.
7. 9. Under surfaces of fragments, showing the radiation of coralllets from the central apex.
10. Under surface of a corallum, from which a portion of the papillose exothecal secretion is removed, so as to show the mural pores perforating the epitheca.
12. 13. 14. Views of tube-casts and pore-casts similar to those observed in *Pleurodictyum problematicum*.

All the above examples are from the decomposed hornstone of the Middle Devonian, Falls of the Ohio. Collection of the author.

8. Under surface of a fragment from the limestone on which rests the uppermost chert layer of the Middle Devonian, Falls of the Ohio. Collection of Mr. Gaines.
11. Under surface of a corallum from which a portion of the exothecal layer has been removed, so as to disclose a tube-cast beneath; from the horizon and locality of example 3. Collection of Mr. McConathy.

PROCTERIA PAPILLOSA, Nov. Spec.

Devonian.

15. Upper surface of a corallum, showing papillose exothecal layer surmounting the coralllets' walls.
16. Under surface of a corallum, showing papillose exothecal secretion and the concave margins of the outer walls of the prostrate coralllets.
17. Lateral view of a corallum.
19. Upper surface of a small corallum with thinner walls than the average.
18. 20. 21. Under surfaces of coralla.

All the forms of this species have been found in the decomposed chert of the Middle Devonian, Falls of the Ohio. The examples figured are from the collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 41.

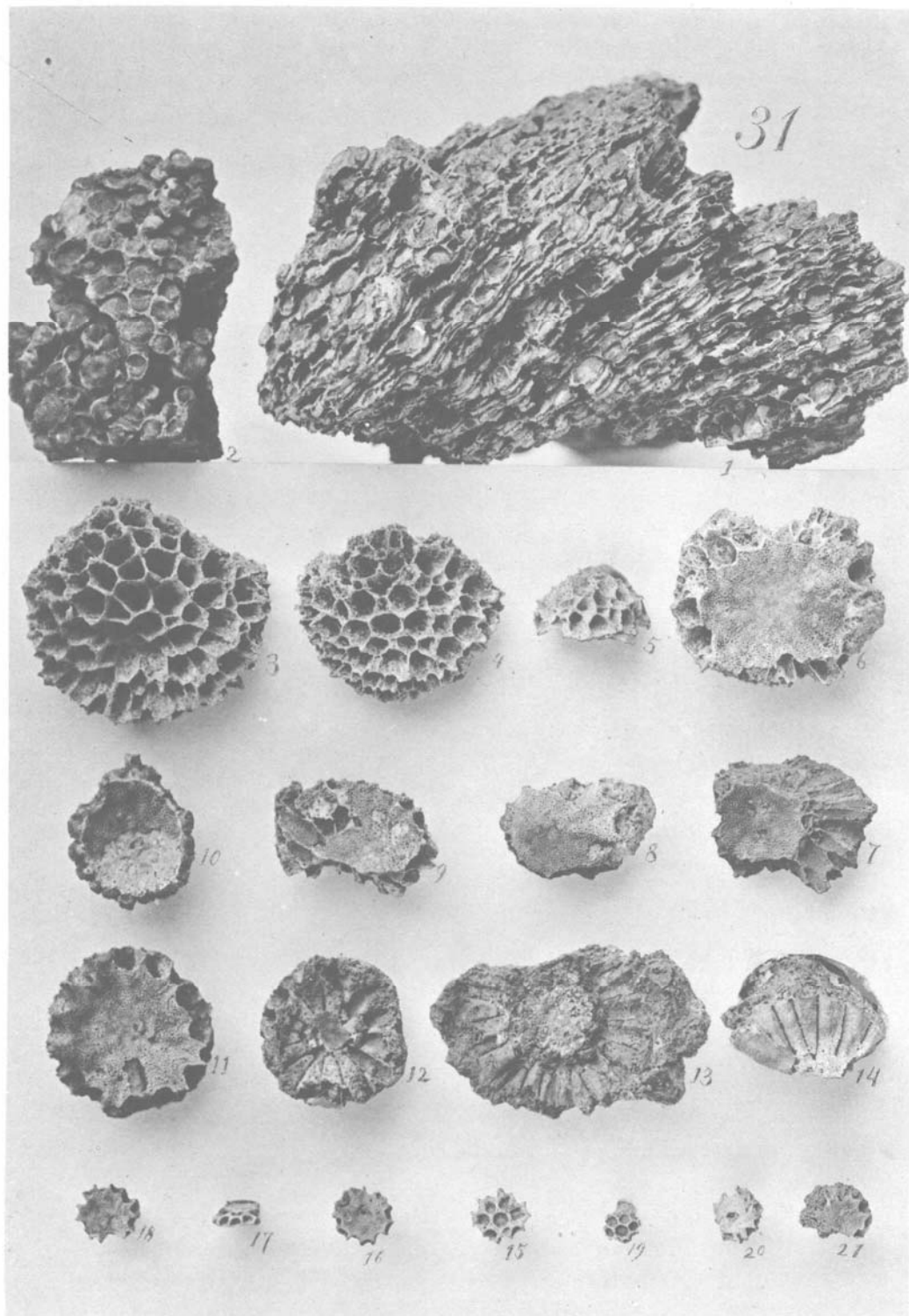


PLATE 42.

MICHELINIA CLAPPI.

Devonian.

1. Oblique lateral view of a corallum from the blue clay of the Middle Devonian, Falls of the Ohio.
2. Upper surface of a corallum from the same locality and horizon.
3. Upper surface of a corallum from the ferruginous clay of the Middle Devonian, near Louisville.
4. Lateral view of the example figured in Plate 41, Fig. 2.

The specimens figured are from the collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 42.

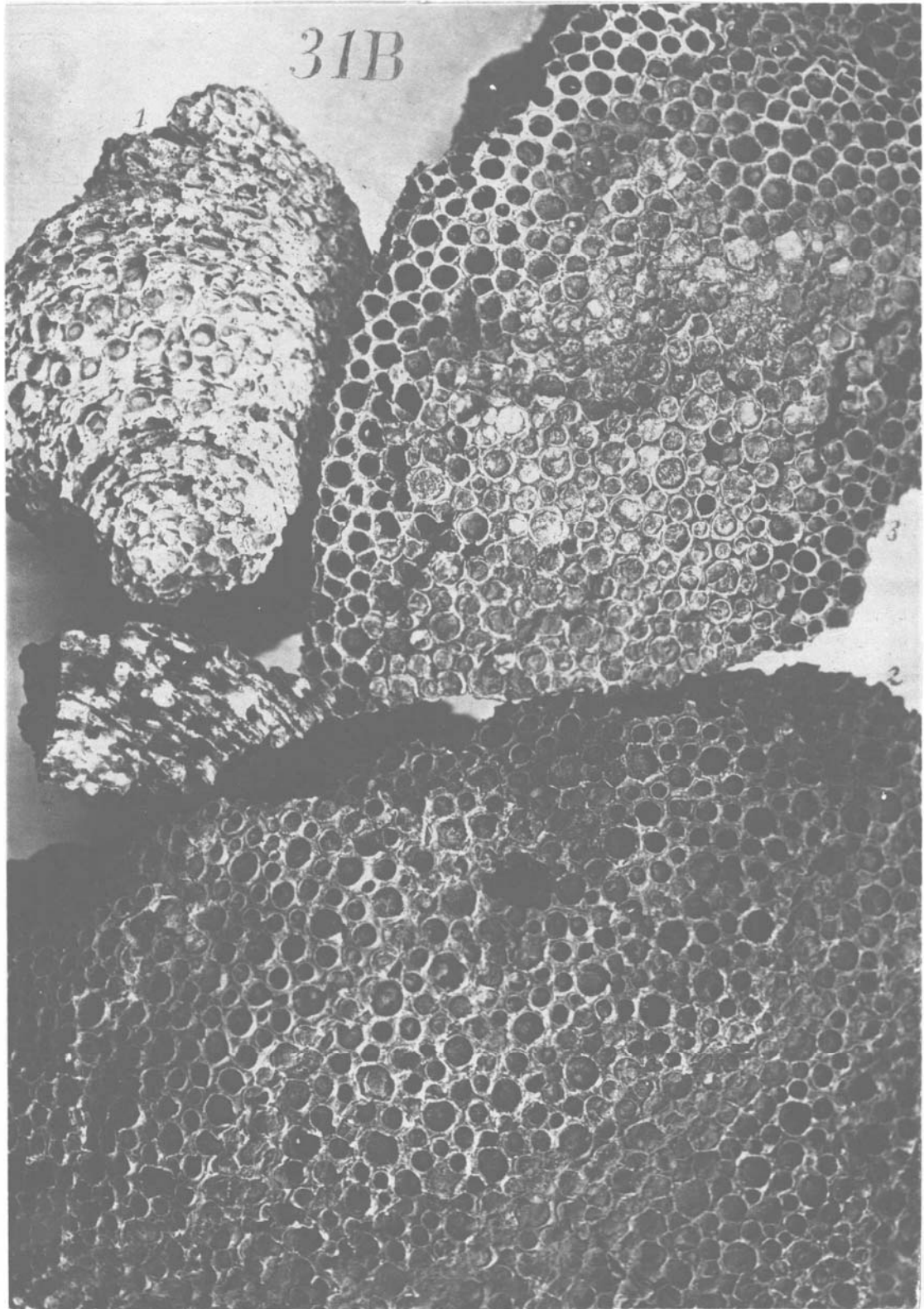


PLATE 43.

ALVEOLITES CONSTANS, Nov. Spec.

Devonian.

1. Lateral view of a corallum from the red clay of the Lower Devonian,
near Louisville. Collection of the author.

ALVEOLITES SQUAMOSUS.

Devonian.

2. 3. Upper surfaces of coralla from the horizon of the preceding species,
near Louisville. Collection of the author.

ALVEOLITES MINIMUS, Nov. Spec.

Devonian.

4. Lateral view of a corallum from the Lower Devonian strata, Falls
of the Ohio. Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 43.

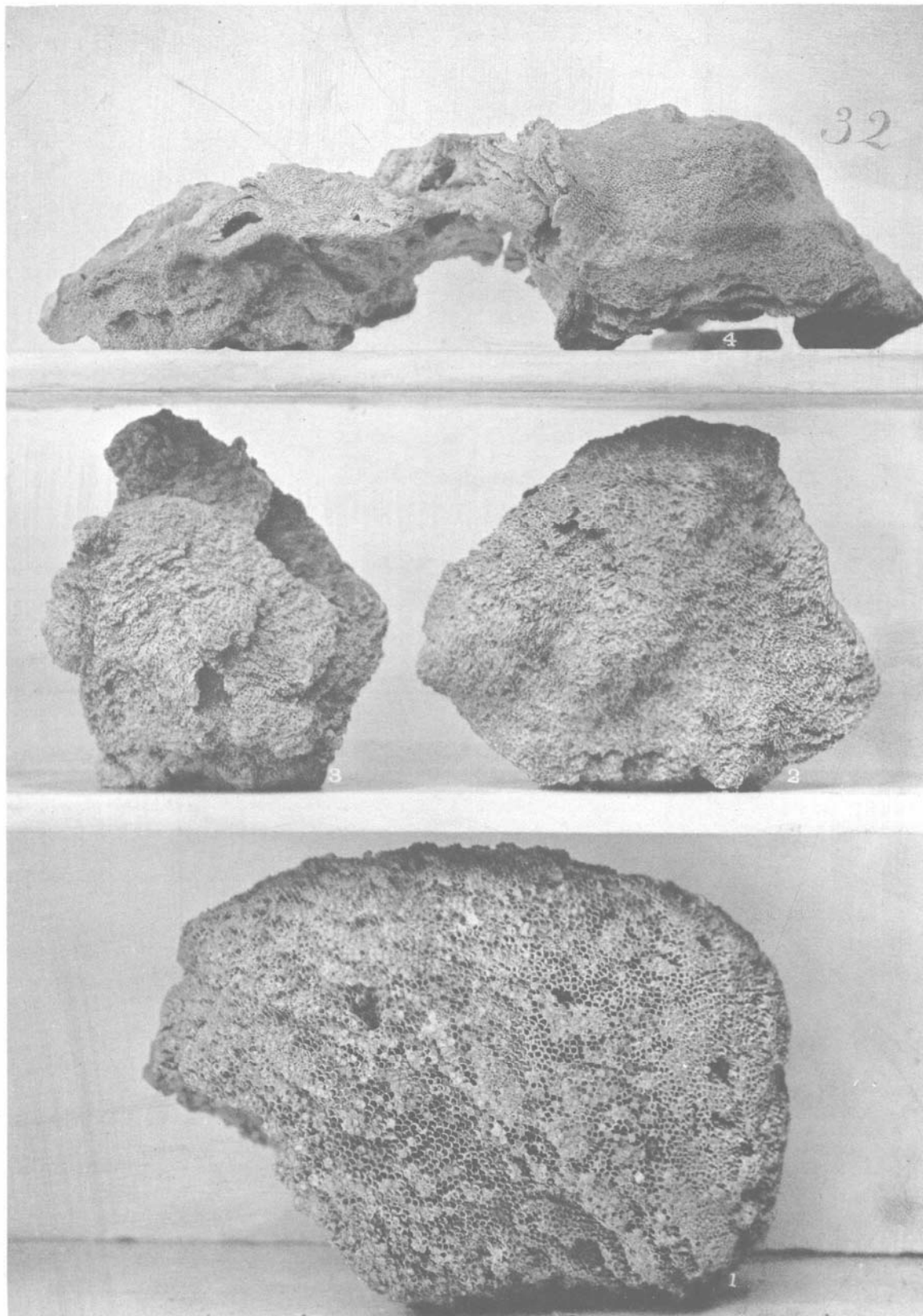


PLATE 44.

ALVEOLITES SCANDULARIS, Nov. Spec.

Devonian.

1. Upper surface of a fragment of a corallum from the encrinal limestone clay of the Upper Devonian, near Louisville. Collection of the author.

ALVEOLITES GOLDFUSSI.

Devonian.

2. Upper surface of a corallum from the horizon of *A. scandularis* (Fig. 1), near Louisville. Collection of the author.

ALVEOLITES MINIMUS, Nov. Spec.

Devonian.

3. Upper surface of a corallum from the Lower Devonian rocks, Falls of the Ohio. Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 44.

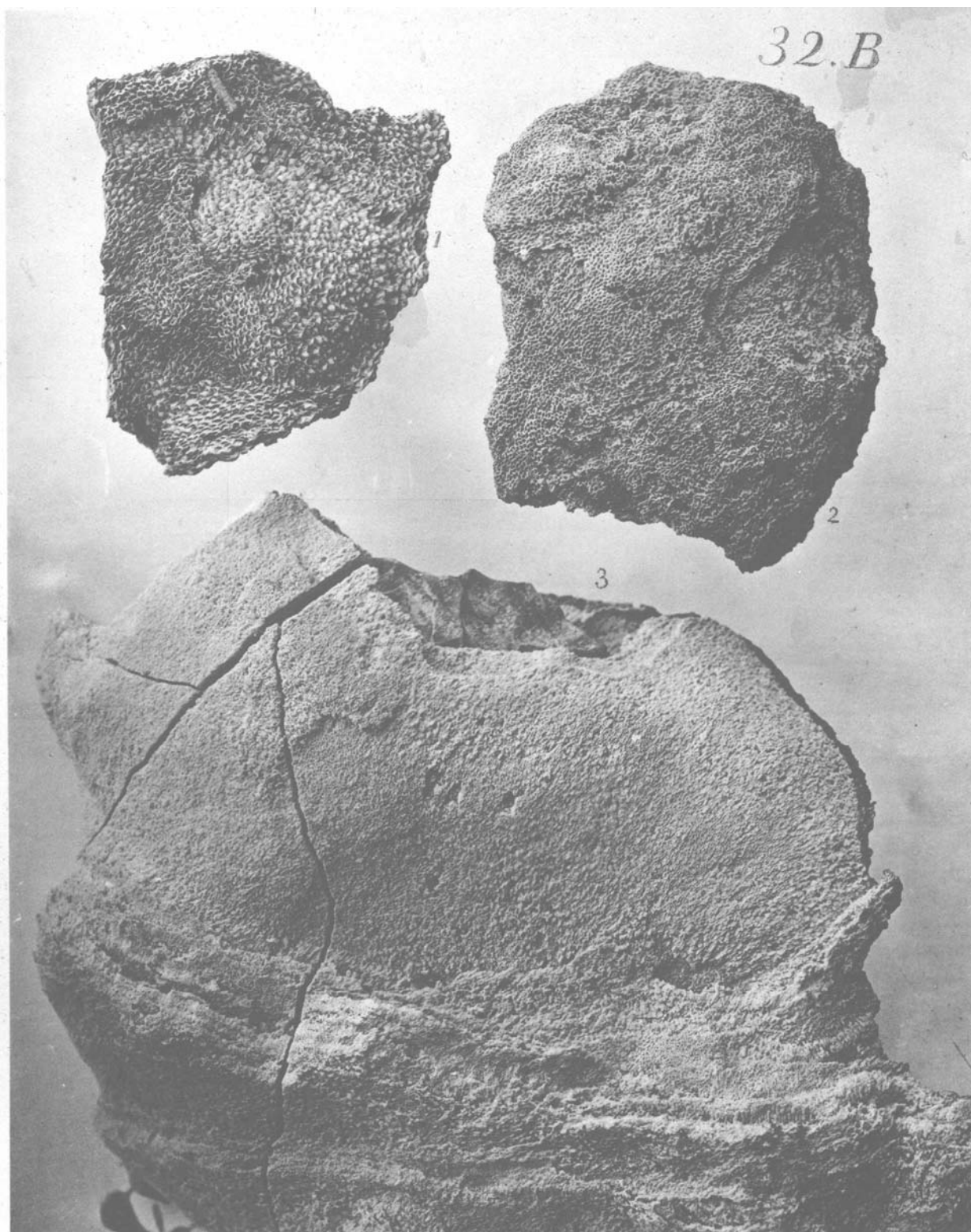


PLATE 45.

ALVEOLITES MORDAX, Nov. Spec.

Devonian.

1. Upper surface of a corallum from the ferruginous clay of the Lower Devonian, near Louisville. Collection of the author.
- 2 Lateral view of a small corallum, with coralllets of the smallest size, from the same horizon, near Louisville. Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 45.

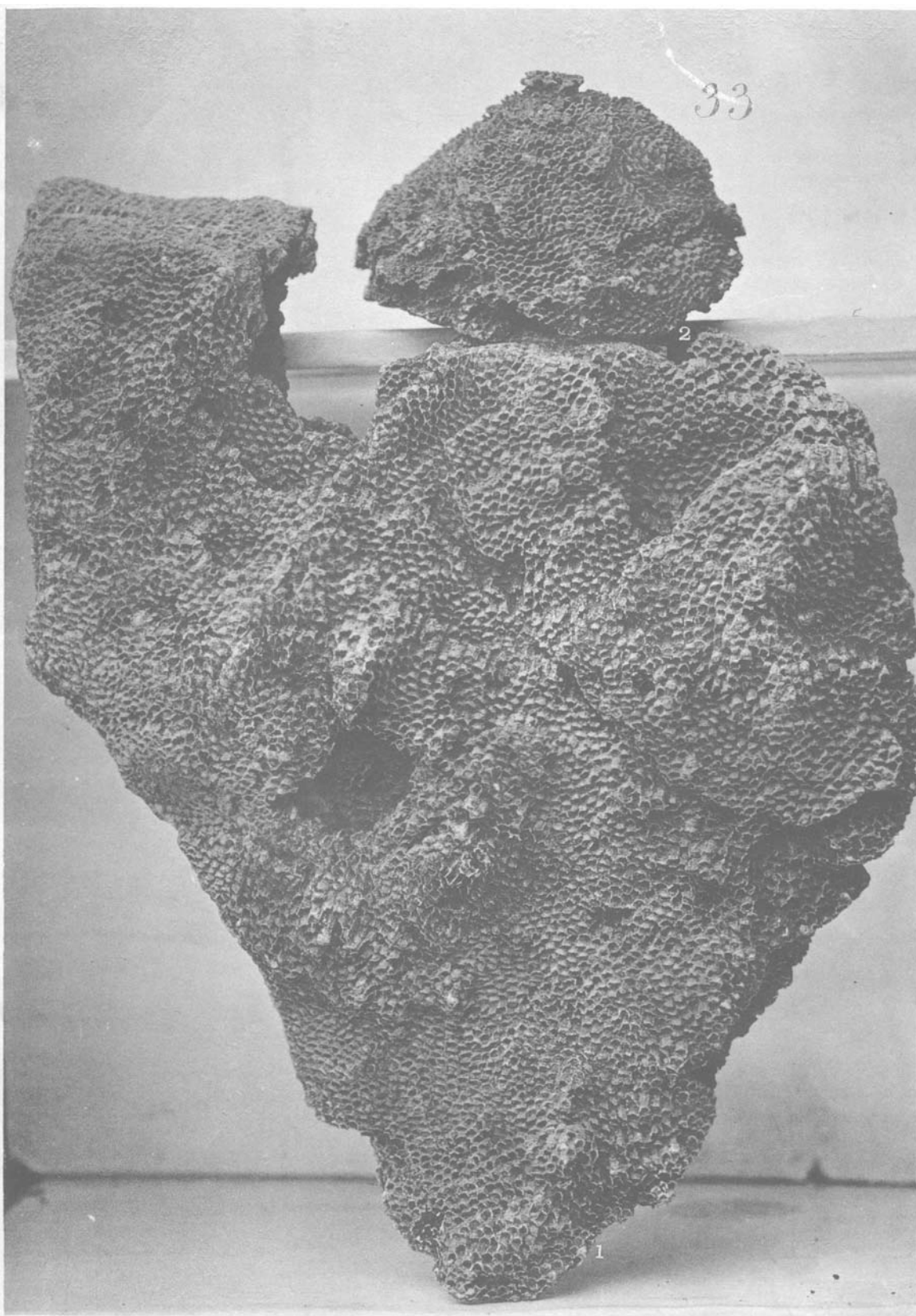


PLATE 46.

CAENITES VERTICILLATA.

Niagara.

1. Lateral view of the cylindrical portion of a corallum.
3. Lateral view (prostrate) of the cylindrical portion of a corallum, with a verticillate expansion.
2. 4. Under surfaces of expanded verticillate plates.

These examples are from the ferruginous clay of the Upper Niagara, near Louisville. Collection of the author.

ALVEOLITES LOUISVILLENSIS, Nov. Spec.

Niagara.

5. Upper surface of a corallum from the white clay of the Upper Niagara, near Louisville. Collection of Mr. Nettelroth.
6. Upper surface of a weathered corallum, from the same horizon and locality. Collection of the author.

ALVEOLITES NIAGARENSIS.

Niagara.

7. Upper surface of a fragment from the Upper Niagara white clay, near Louisville. Collection of Mr. McConathy.

ALVEOLITES FIBROSUS, Nov. Spec.

Niagara.

8. Upper surface of a corallum from the Upper Niagara clay, near Louisville. Collection of the author.

MILLERIA (Nov. Gen.) LAMINATA, Nov. Spec.

Niagara.

9. Oblique view of the upper surface and side of a corallum, showing the successive thin laminar expansions; from the Upper Niagara ferruginous clay, near Louisville. Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 46.

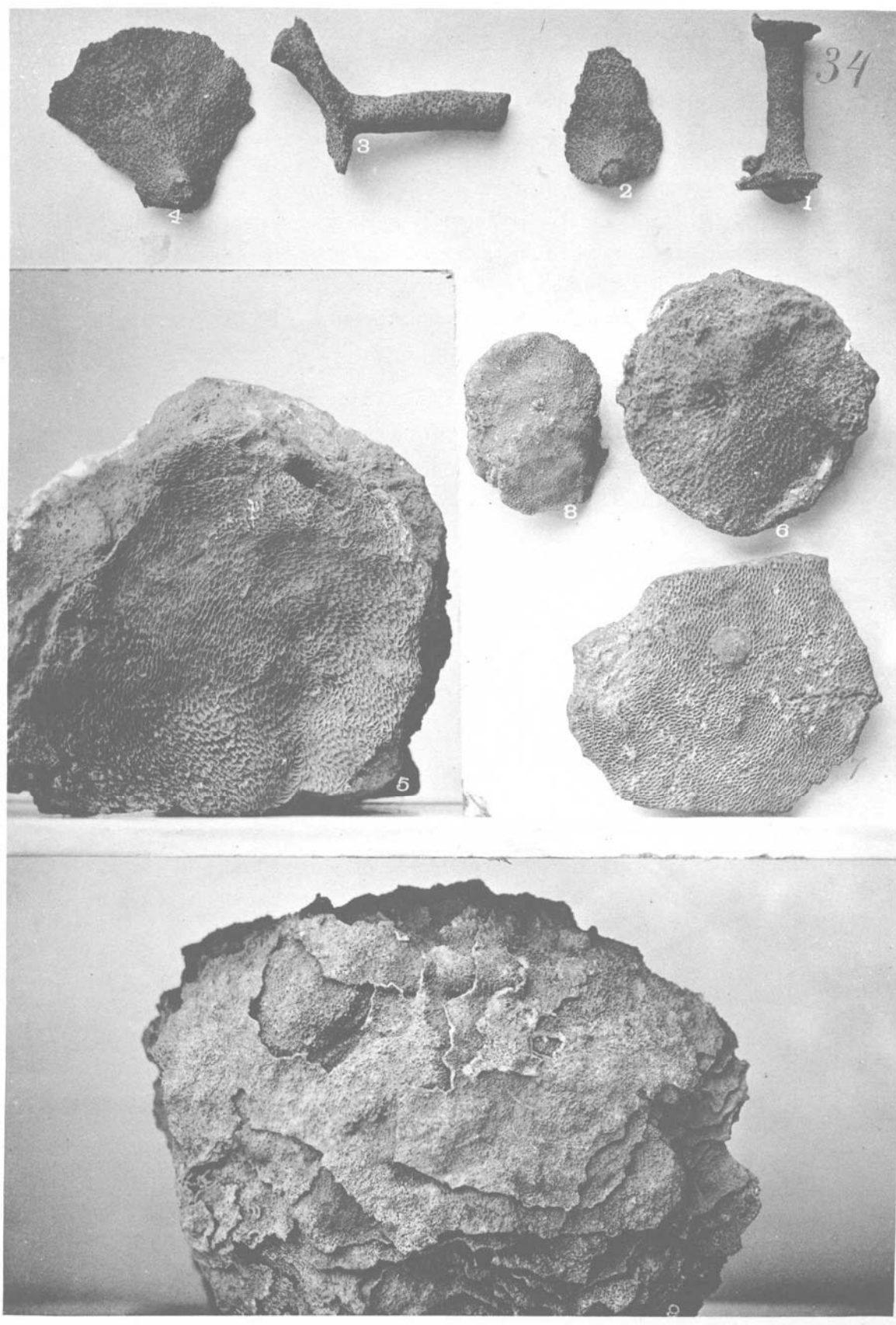


PLATE 47.

CLADOPORA RETICULATA.

Niagara.

1. Lateral view of a corallum from the Upper Niagara white clay, thirteen feet below the Niagara and Devonian passage-beds, near Louisville. Collection of the author.
2. View of a corallum, with its apex of growth centrally situated, and its fronds radiating in all directions therefrom; found in the horizon of example 1, near Louisville. Collection of Mr. Nettelroth.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 47.

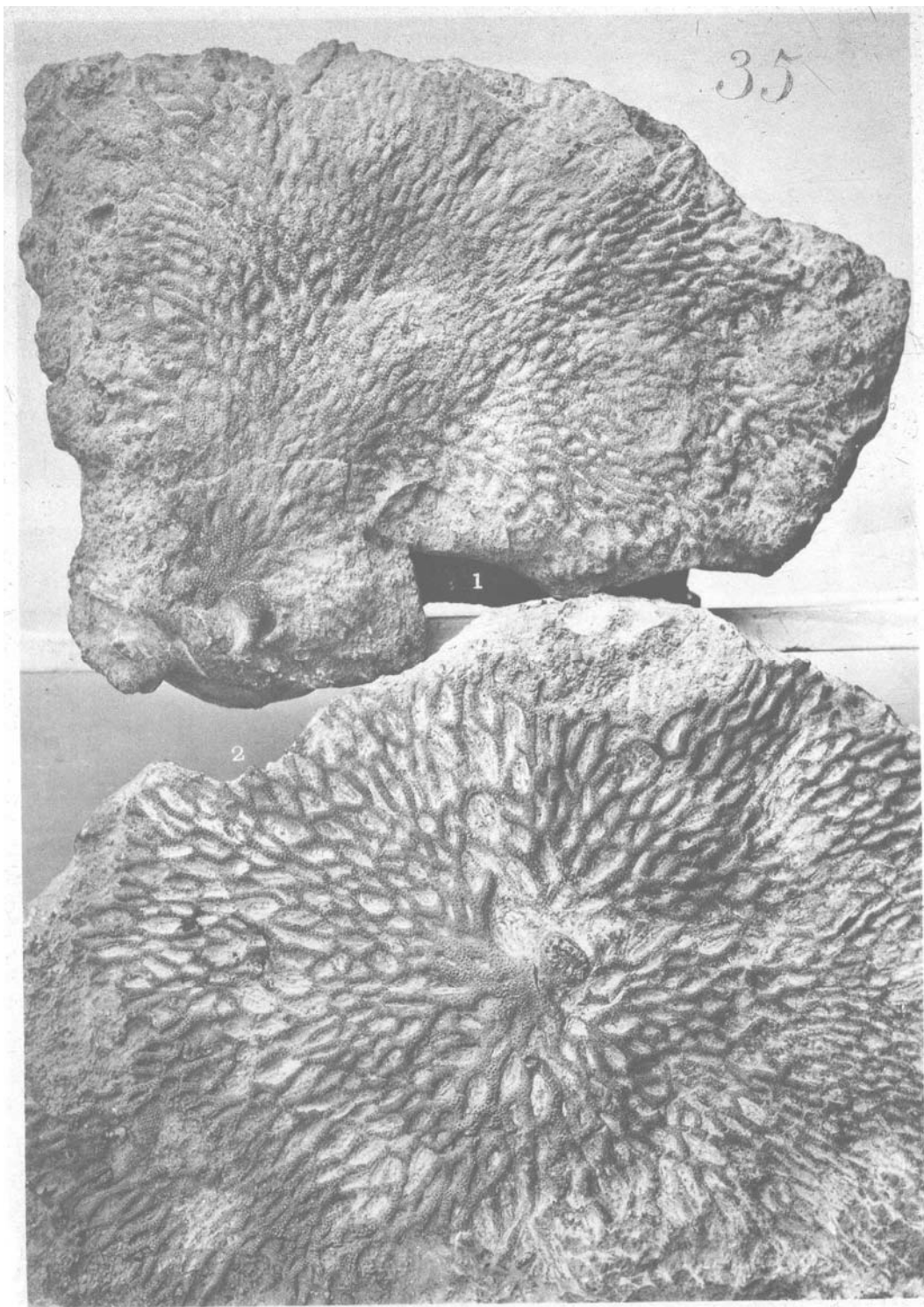


PLATE 48.

CLADOPORA ACULEATA, Nov. Spec. *Niagara.*

1. Lateral view of a fragment from the Upper Niagara white clay, near Louisville. Collection of the author.

CLADOPORA ORDINATA, Nov. Spec. *Niagara.*

2. Lateral view of a small fragment from the same horizon as *C. aculeata*, near Louisville. Collection of the author.

CLADOPORA PROBOSCIDALIS, Nov. Spec. *Niagara.*

3. Lateral view of a fragment from the same horizon and place as the preceding species. Collection of the author.

CLADOPORA MENIS, Nov. Spec. *Niagara.*

4. Lateral view of the upper portion of a frond showing the trichotomous branching; from the horizon and neighborhood of the examples preceding. Collection of the author.
5. Pedicle of a corallum with a portion of the trunk; from the horizon and place of example 4. Collection of the author.

CLADOPORA STRIATA, Nov. Spec. *Niagara.*

6. Lateral view of several fronds of a corallum, from the horizon of the above examples. Collection of Mr. Nettelroth.

CLADOPORA EQUISETALIS, Nov. Spec. *Niagara.*

7. Several fronds springing from the same base; from the same horizon as the above. Collection of Mr. Nettelroth.

CLADOPORA LAQUEATA. *Niagara.*

8. Corallum, pedicle wanting, from the Upper Niagara white clay, near Louisville. Collection of the author.
9. Nearly entire corallum from the Upper Niagara red clay, near Louisville. Partly invested by *Stromatopora concentrica*. Collection of Mr. Nettelroth.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 48.

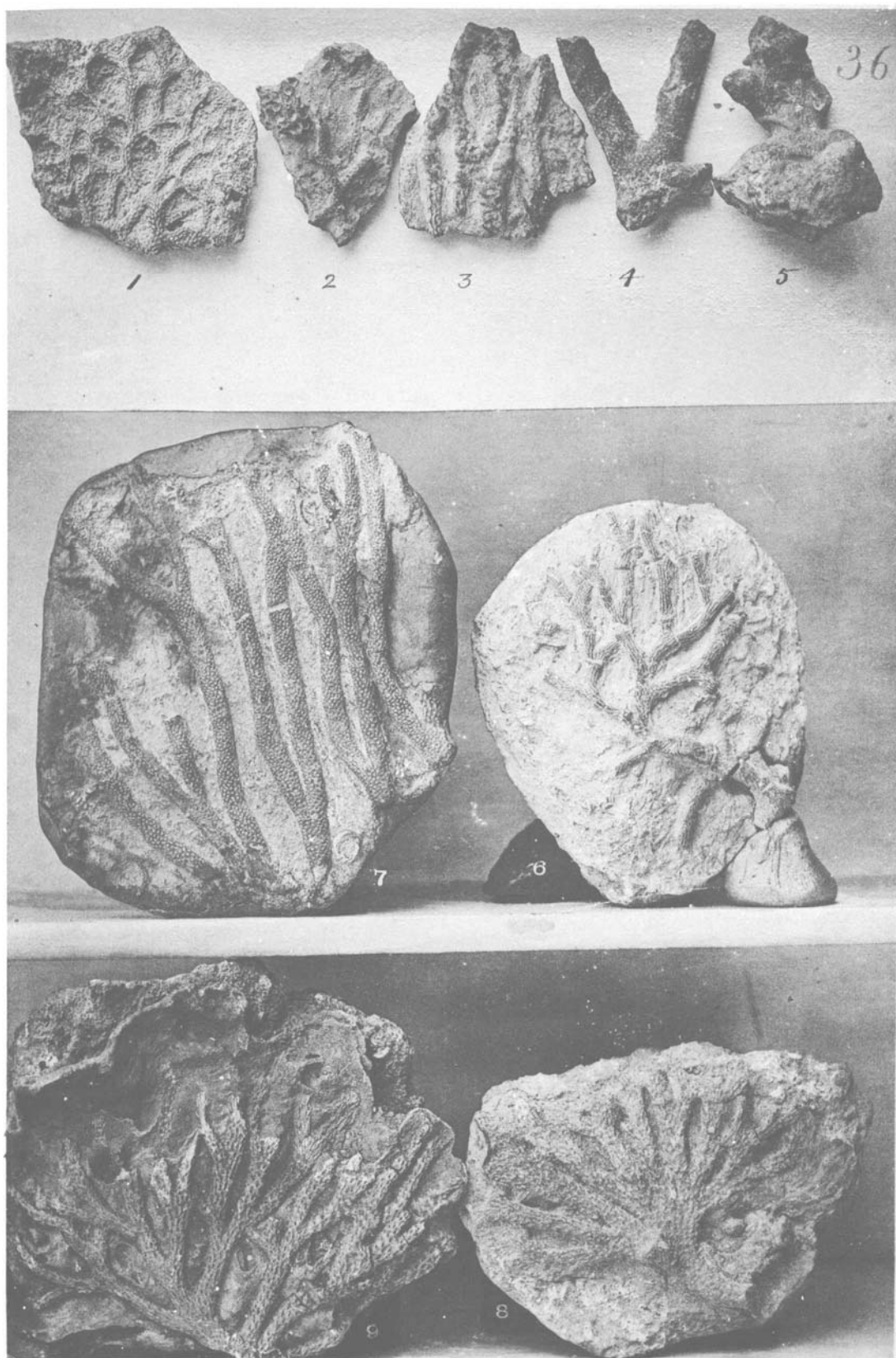


PLATE 49.

CLADOPORA COMPLANATA, Nov. Spec. *Niagara.*

1. Lateral view (half inverted) of a portion of a frond from the Upper Niagara white clay, near Louisville. Collection of Dr. Knapp.

CLADOPORA ACULEATA, Nov. Spec. *Niagara.*

2. Lateral view (half inverted) of a portion of a corallum, from the horizon and place where the preceding specimen was gathered. Collection of Dr. Knapp.

SYRINGOPORA TUBIPOROIDES. *Devonian.*

3. Section of several coralllets, partly imbedded in the rock matrix, showing the conical invaginating diaphragms; from the Lower Devonian rocks, Falls of the Ohio. Collection of Dr. Knapp.

FAVOSITES CLAUSUS. *Devonian.*

4. Portion of a corallum from the Lower Devonian rocks, Falls of the Ohio. Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 49.

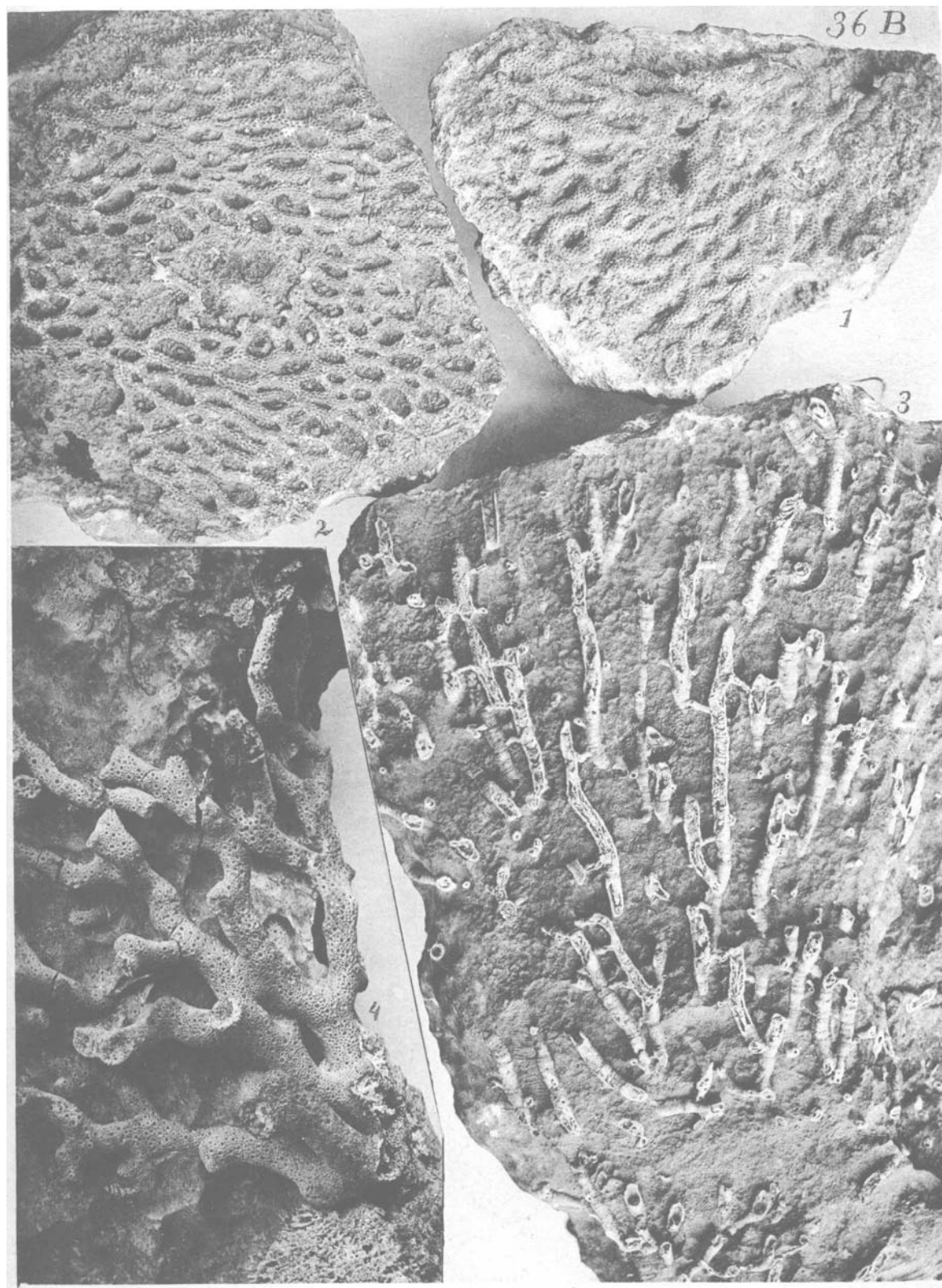


PLATE 50.

CLADOPORA ASPERA.

Devonian.

1. Front lateral view of a corallum from the Lower Devonian rocks,
Falls of the Ohio. Collection of the author.

CLADOPORA EXPATIATA.

Devonian.

2. Portions of fronds with part of pedicle, from the ferruginous clay of the
Lower Devonian, near Louisville. Collection of the author.
3. Front lateral view of a corallum (prostrate) from the Lower Devonian,
Falls of the Ohio. Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 50.

