

PLATE 101.

- CYATHOPHYLLUM POCILLUM, Nov. Spec. *Devonian.*
1. Longitudinal section of a corallum, from the Upper Devonian red clay, near Louisville. Collection of the author.
- CALCEOLA PROTEUS, Nov. Spec. *Niagara.*
2. Inner surface of an operculum, from the Upper Niagara white clay beds, near Louisville. Collection of Dr. Knapp.
- CHONOPHYLLUM MAGNIFICUM. *Devonian.*
3. View of the calyx of a corallum of medium size, from the manganese limestone rocks of the Lower Devonian, Falls of the Ohio. Collection of the author.
- BLOTHROPHYLLUM LOUISVILLENSE, Nov. Spec. *Devonian.*
4. Left lateral view of a corallum, from the Middle Devonian blue clay, Falls of the Ohio.
5. Similar view of a corallum, from the same horizon and place.
- BLOTHROPHYLLUM CINCTUTUM, Nov. Spec. *Devonian.*
6. Longitudinal section of a fragment, showing arrangement of the diaphragms, etc.. from the locality and horizon of the preceding species of Blothrophyllum. Collection of Dr. Knapp.
- CYATHOPHYLLUM PUMILUS, Nov. Spec. *Devonian.*
7. View of the calyx of a corallum, from the red clay of the Middle Devonian, near Louisville. Collection of the author.
- BLOTHROPHYLLUM CORIUM, Nov. Spec. *Devonian.*
8. Left lateral view of a corallum, from the upper part of which the epitheca has been fortuitously denuded; from the Middle Devonian red clay, near Louisville.
11. Right lateral view of a corallum, from the Middle Devonian blue clay, Falls of the Ohio.
9. View of the calyx of a sessile corallum, from the horizon and neighborhood of example Fig. 8. The specimens are from the collection of the author.
- AULACOPHYLLUM PARVUM, Nov. Spec. *Devonian.*
10. View of the calyx and oblique anterior view of a corallum, with small apical scar; from the Middle Devonian blue clay, Falls of the Ohio, Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 101.

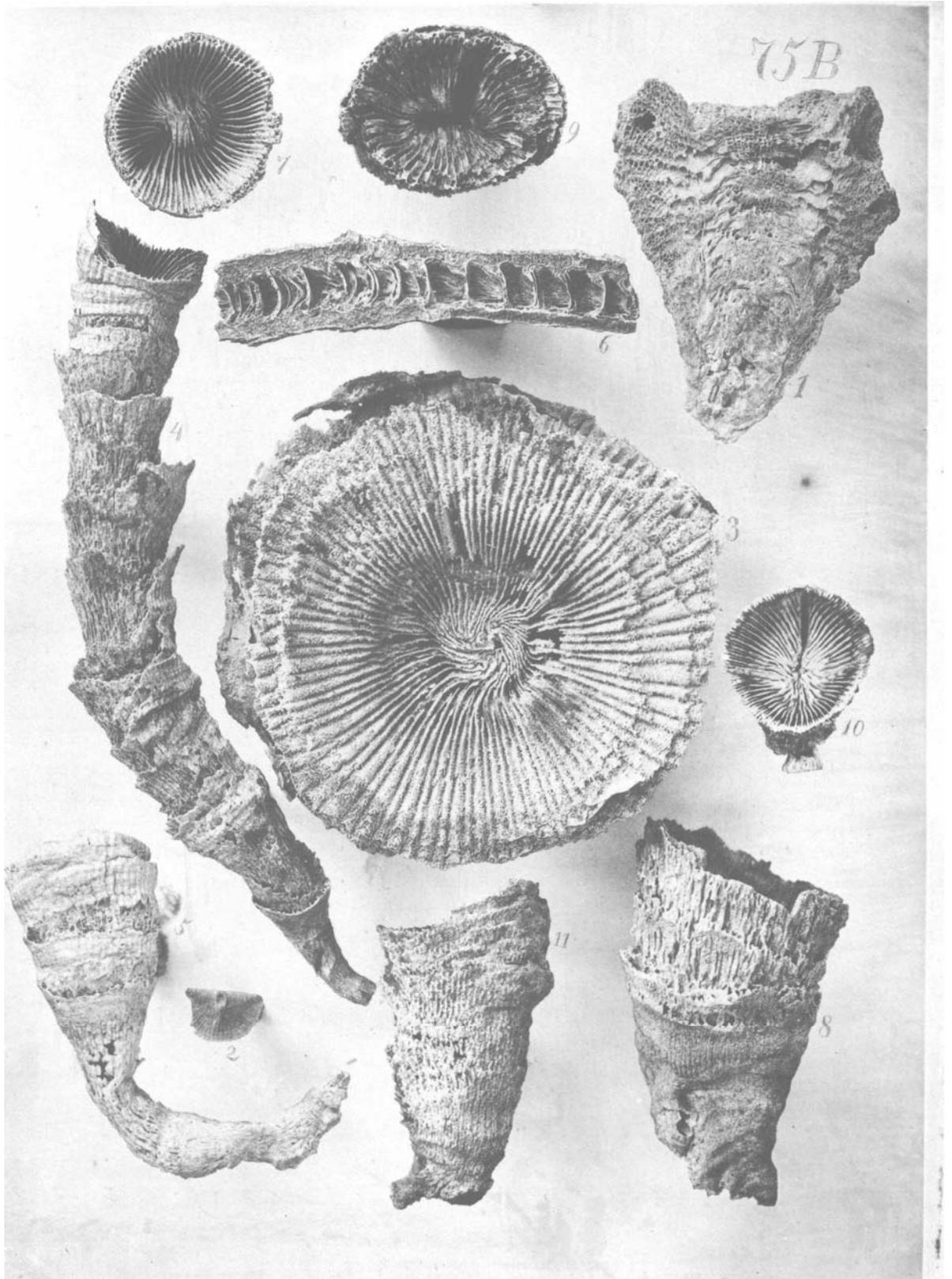


PLATE 102.

BLOTHROPHYLLUM LIRATUM, Nov. Spec. *Devonian.*

1. View of the calyx of the corallum figured in Plate 97, Fig. 1.

AULACOPHYLLUM CONIGERUM, Nov. Spec. *Devonian.*

2. Left lateral view of a flexuous corallum, from the dark-red clay of the Upper Devonian encrinal limestone, near Louisville.
3. View of the calyx and oblique anterior view of a corallum (inverted), from the same horizon and neighborhood.

ACROPHYLLUM CLARKI, Nov. Spec. *Devonian.*

4. View of the calyx of corallum figured in Plate 97, Fig. 3.
5. View of the calyx of corallum in Fig. 4, Plate 97.
6. View of the calyx of corallum in Fig. 5, Plate 97.
7. View of the calyx of corallum in Fig. 6, Plate 97.

BLOTHROPHYLLUM ZAPHRENTIFORME, Nov. Spec. *Devonian.*

8. Left lateral view of a corallum of average size.
9. Similar view of a corallum.
10. Right lateral view of a corallum.
11. Left lateral view of a stout corallum.
12. Right lateral view of a corallum.
13. Right lateral view of a corallum, whose epitheca has been fortuitously removed.
14. Right lateral view of a corallum of gigantic dimensions.
15. 16. Views of calyces of coralla (inverted).

The examples of this species figured, with the exception of example 14, which is from Crab Orchard, are from the horizon and vicinage of *Aulacophyllum conigerum*.

The specimens figured in this Plate belong to the collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 102.

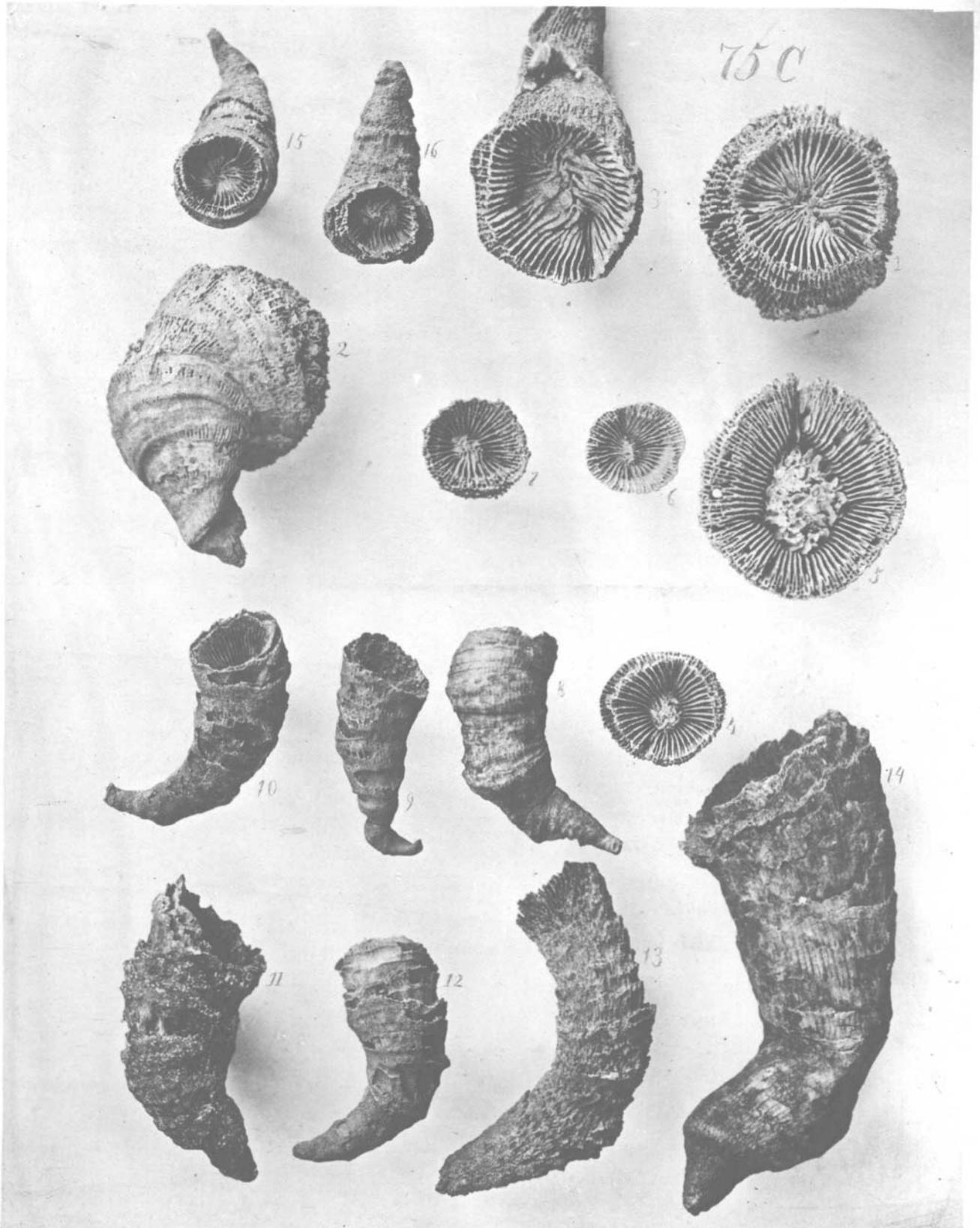


PLATE 103.

NETTELROTHIA (Nov. Gen.) CRATERIFORME, Nov. Spec. *Devonian.*

1. View of the under surface of a sarcodeme.
2. Lateral view of a sarcodeme (inverted).

From the encrinal limestone of the Upper Devonian, near Louisville.

[note.—This form does not belong to the Polypi, but to the Protista. For this reason it is not described in the descriptive text of this work. It will be described in another work now in preparation.]

HADROPHYLLUM D'ORBIGNYI.

Devonian.

3. 4. 5. 6. 7. Views of calyces of coralla.
8. 9. 10. 11. Lateral views of coralla of varying form and size. From the red clay of the Middle Devonian, near Louisville.

CHONOPHYLLUM MAGNIFICUM.

Devonian.

12. Lateral view of a corallum, from the ferruginous clay of the Lower Devonian, near Louisville.
13. Lateral view of a corallum. with epitheca denuded, from the manganese limestone of the Lower Devonian, Falls of the Ohio.
14. View of a portion of the calyx of a well preserved fragment, from the horizon and neighborhood of example in Fig. 12.

With the exception of example 14, which belongs to Mr. McConathy, the specimens herein figured are from the collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 103.

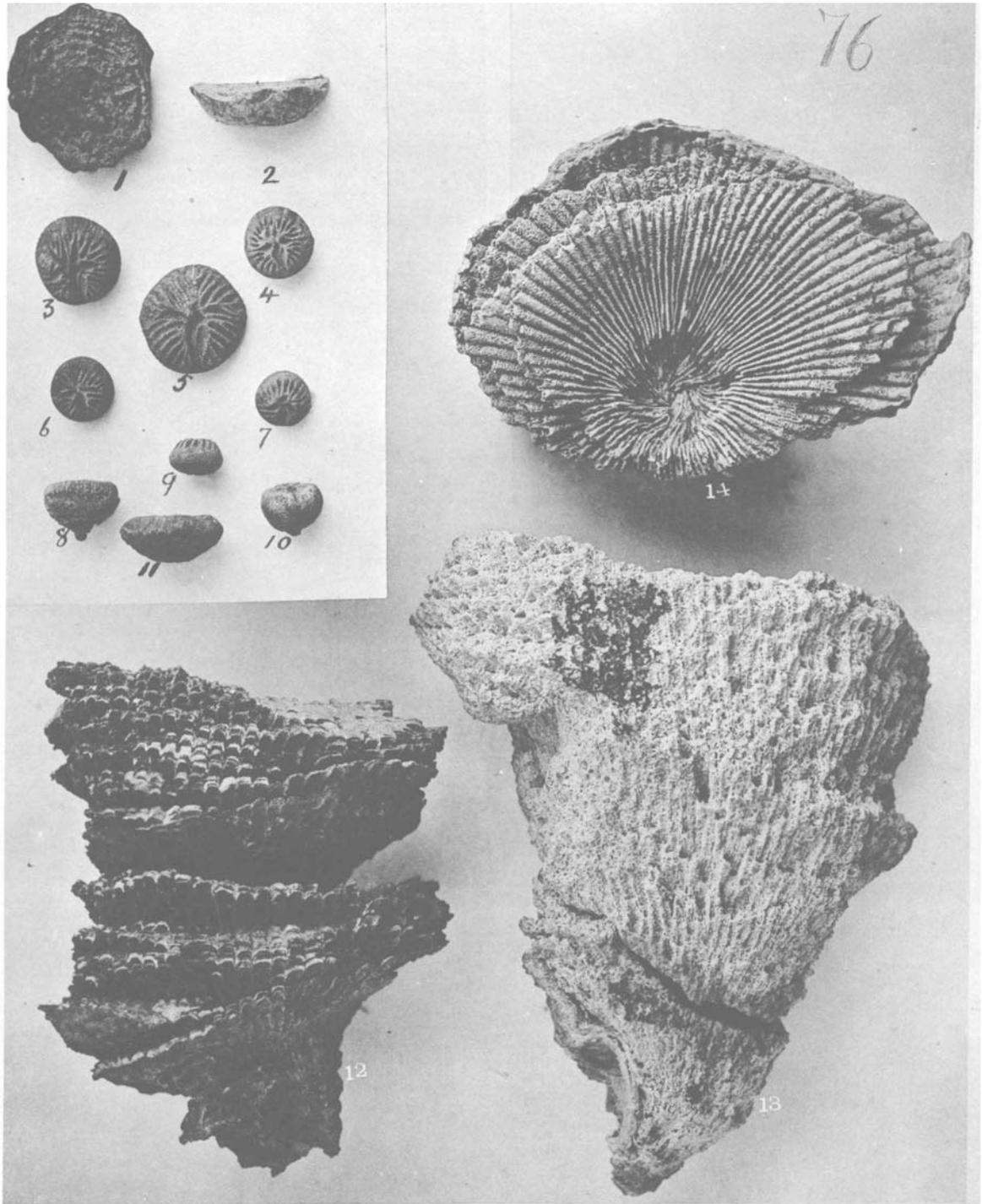


PLATE 104.

CYATHAXONIA GAINESI, Nov. Spec.

Niagara.

1. View of the calyx of a corallum.
2. Anterior view of a young corallum.
3. Left lateral view of a corallum.
4. Right lateral view of a corallum.
5. Posterior view of a corallum.
6. Anterior view of a corallum.

From the lowest strata of the Niagara period, near Louisville.

PTYCHOPHYLLUM IPOMOEAE, Nov. Spec.

Niagara.

7. (Upper left specimen.) Under surface of a corallum, from the Upper Niagara white clay, near Louisville.

OMPHYMA VERRUCOSA.

Niagara.

8. (Central specimen.) Right lateral view of a corallum, from the Upper Niagara ferruginous clay, near Louisville.
9. (Right central specimen.) Right lateral view of a corallum, from the white clay beds of the Upper Niagara, near Louisville.
10. Posterior view of a corallum, with part of the calyx wall broken off.
11. Anterior view of a large corallum, with partially denuded epitheca.

Examples 10 and 11 are from the horizon and vicinage of example 8.

All the specimens are from the collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 104.

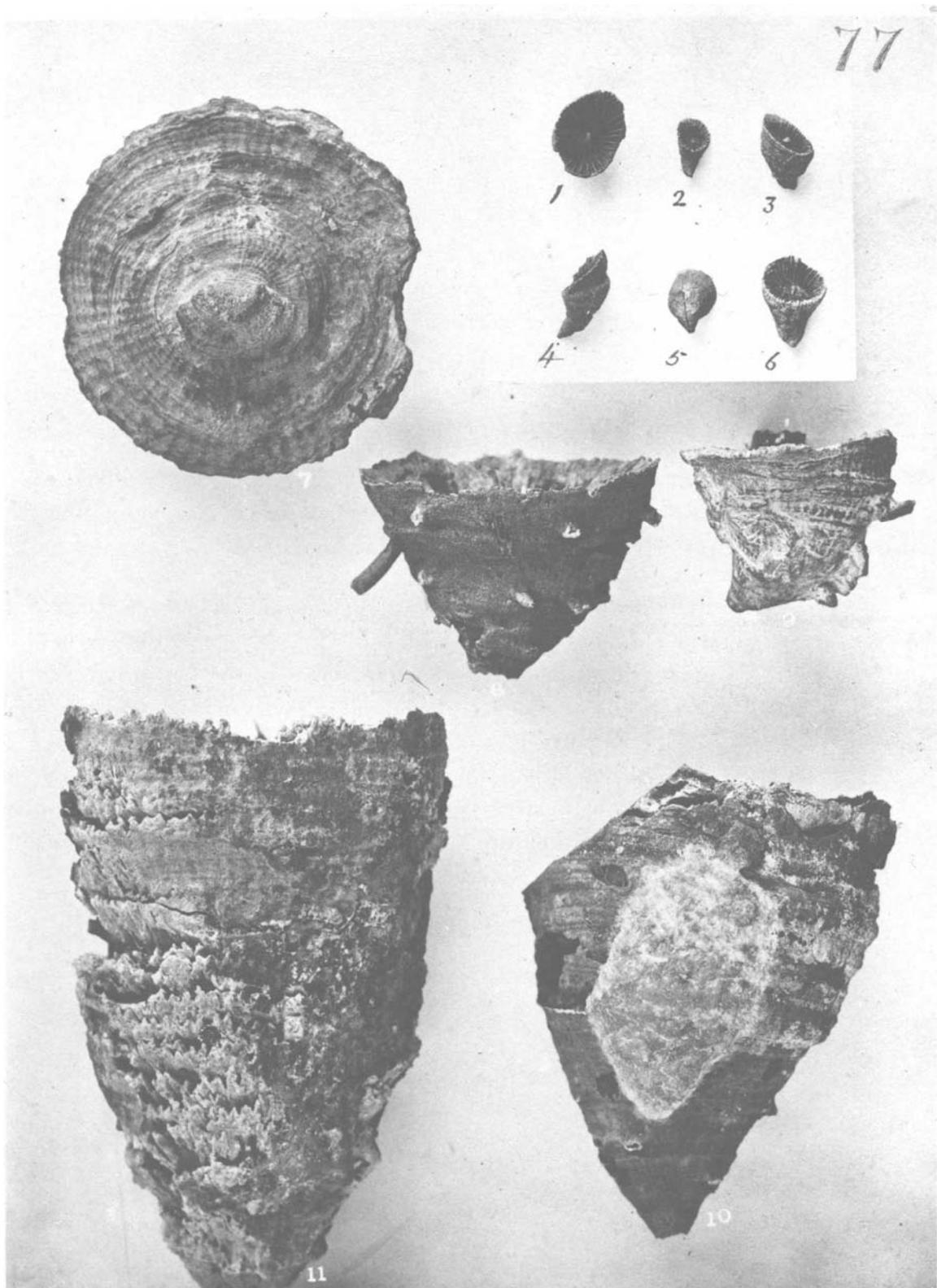


PLATE 105.

PTYCHOPHYLLUM STOKESI.

Niagara.

1. Left lateral view of a corallum of average size.
2. (Upper central specimen.) View of the calyx of a corallum.
3. (Central Specimen.) Posterior view of a corallum attached by its radicles to an extraneous object.
4. (Left central specimen.) Lateral view of coralla mutually attached.
5. View of the calyces of three inosculated coralla.
6. (Left upper specimen.) View of a proliferous corallum.
7. View of the calyx of a corallum, invaginated within the inferior calyx.

All from the red clay of the Upper Niagara, near Louisville.

Example 5 from the collection of Mr. McConathy; example 6 from the collection of Mr. Nettelroth; the others from the collection of the author.

PTYCHOPHYLLUM INVAGINATUM, Nov. Spec.

Niagara.

8. Right lateral view of a corallum, from the red clay of the Upper Niagara, one foot below the Niagara and Devonian passage-beds, near Louisville. Collection of the author.

PTYCHOPHYLLUM IPOMOEAE, Nov. Spec.

Niagara.

9. View of the calyx of the corallum figured in Plate 104, Fig. 7.
10. (Lower central specimen.) Oblique right lateral view of a young gemmiferous corallum, from the Upper Niagara red clay, near Louisville. Collection of the author.

OMPHYMA VERRUCOSA.

Niagara.

11. View of the calyx of a corallum, from the Upper Niagara white clay, near Louisville. Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 105.

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PLATE 106.

PTYCHOPHYLLUM TROPOEUM, Nov. Spec. *Devonian.*

1. (Lower right specimen.) Anterior view of a corallum of average size.
2. (Lower central specimen.) Posterior view of a corallum.
3. View of the calyx of a large corallum.

From the Lower Devonian rocks, Falls of the Ohio.

PTYCHOPHYLLUM DIAPHRAGMA, Nov. Spec. *Devonian.*

4. (Lower left specimen.) Left lateral view of an adult corallum.
5. View of the calyx of a corallum, with portion of the right wall fortuitously broken. From the horizon and vicinage of the preceding species.

PTYCHOPHYLLUM TYPICUM, Nov. Spec. *Devonian.*

6. Right lateral view of a corallum, from the Middle Devonian clay of Lincoln county.
7. View of the calyx of a corallum, from the blue clay of the Middle Devonian, Falls of the Ohio.

PTYCHOPHYLLUM CONIFERUM, Nov. Spec. *Devonian.*

8. (Right of center.) Right lateral view of a corallum, from the Lower Devonian clay of Lincoln county.
 9. (Left of center.) Posterior view of a corallum, from the Lower Devonian rocks, Falls of the Ohio.
 10. Right lateral view of a corallum.
 11. (Upper central specimen.) Right lateral view of a corallum, with calyx wall broken down so as to show the sub-vesicular central cone.
- Examples 10 and 11 are from the horizon and vicinage of example 9.
The specimens figured in the Plate are from the collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 106.

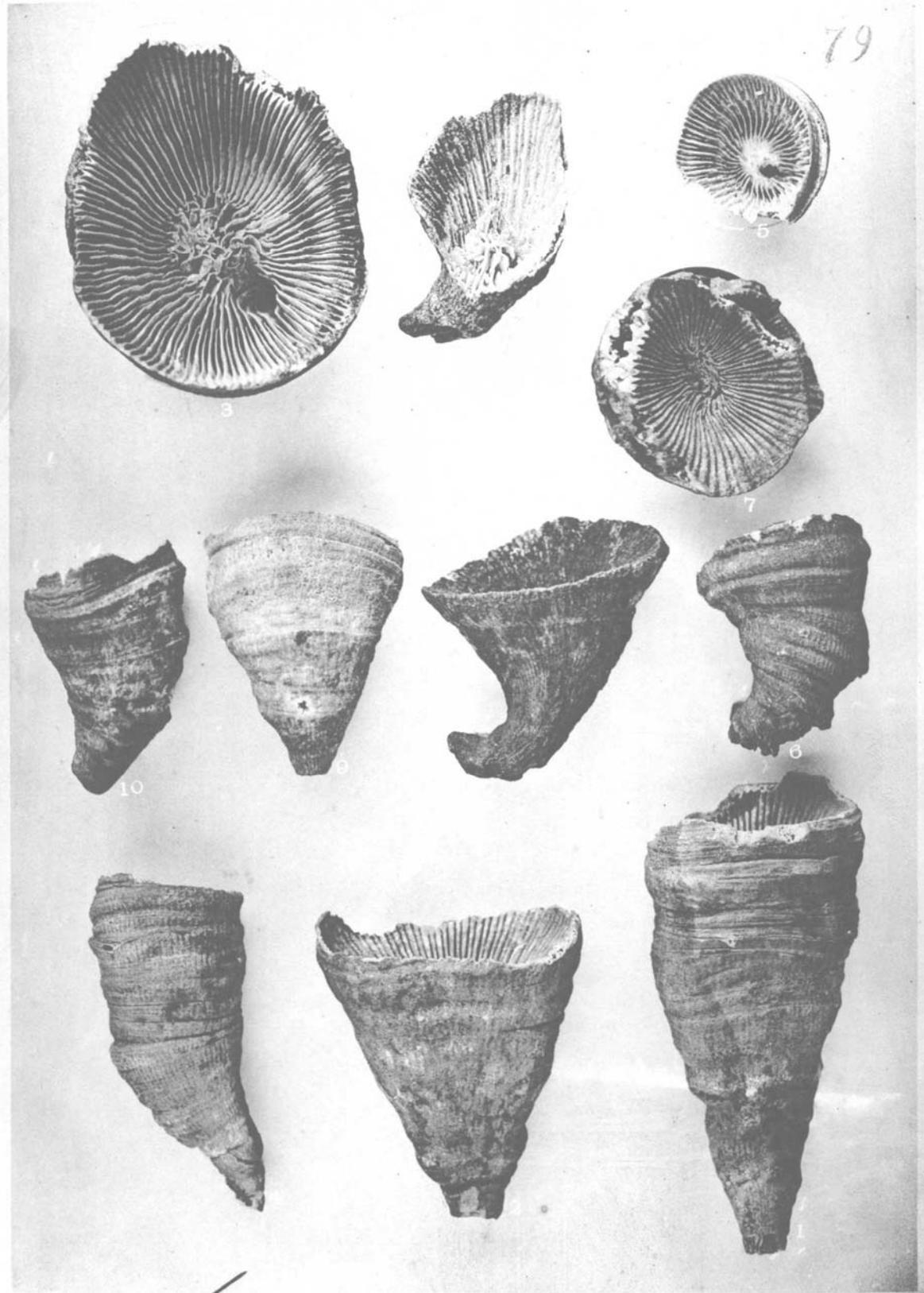


PLATE 107.

ERIDOPHYLLUM ERUCIFORME, Nov. Spec.

Niagara.

Front lateral view of corallites, from the Upper Niagara red clay
near Louisville. Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 107.

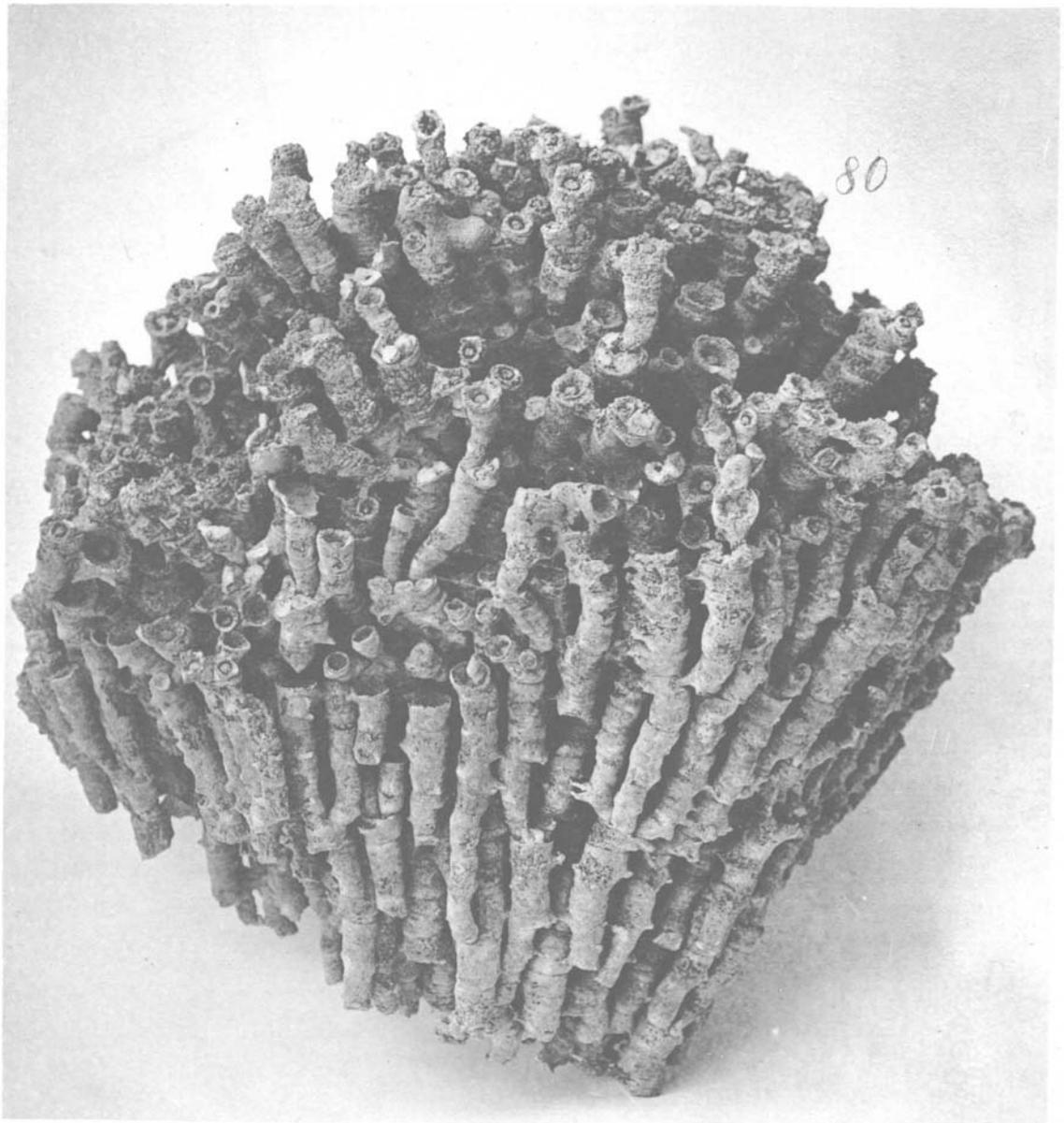


PLATE 108.

ERIDOPHYLLUM SENTUM, Nov. Spec.

Niagara.

1. Upper surface view of a corallum, from the Upper Niagara red clay, near Louisville. Collection of the author.

DIPHYPHYLLUM BELLIS, Nov. Spec.

Devonian.

2. Upper surface view of a corallum, from the Middle Devonian red clay, near Louisville. Collection of the author.

DIPHYPHYLLUM ARCHIACI.

Devonian.

3. Lateral view of a corallum, from the dark-red clay derived from the encrinal limestone of the Upper Devonian, near Louisville. Collected by Mr. Goodwin.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 108.

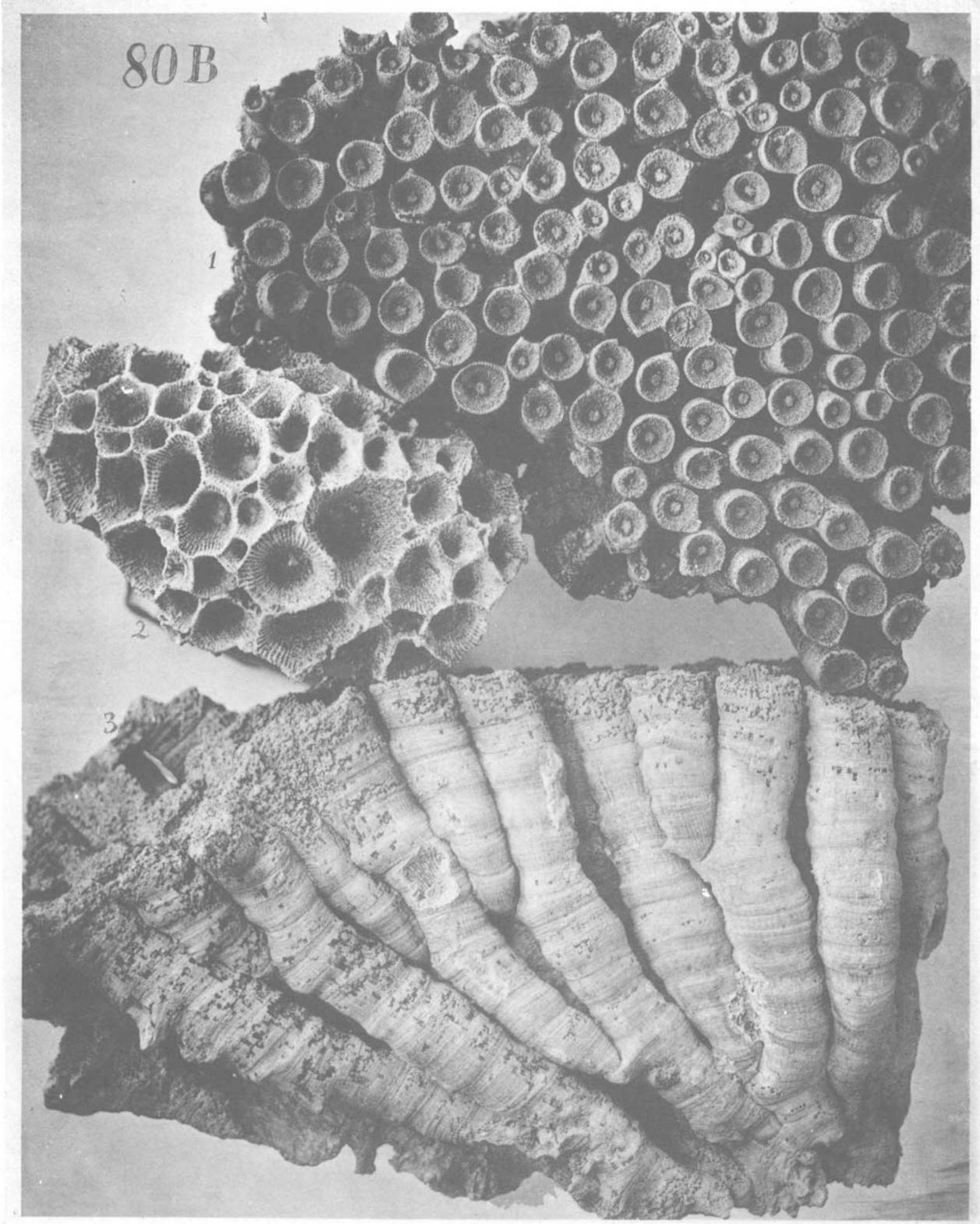


PLATE 109.

ERIDOPHYLLUM RUGOSUM.

Niagara.

1. Hear lateral view of corallets (prostrate), from the red clay of the Upper Niagara, near Louisville. [Jejune example.]

ERIDOPHYLLUM HURONICUM.

Niagara.

2. Front lateral view of a fragment, from the horizon and neighborhood of *E. rugosum*, Fig. 1.

ERIDOPHYLLUM DIVIDUUM, Nov. Spec.

Devonian.

3. View of the upper surface of a composite corallum, partly imbedded in chert, from the red clay of the Upper Niagara, near Louisville.
4. Lateral view of a composite corallum, from the white clay of the Upper Niagara, near Louisville.
5. Lateral view of a composite corallum, from the red clay of the Upper Niagara, near Louisville. Collection of Mr. Nettelroth.
6. Lateral view of two corallets detached from their parent, showing connective processes; from the Upper Niagara red clay, near Louisville.
7. Right lateral view of a corallum, from the Upper Niagara white clay, near Louisville.
8. Left lateral view of a corallum, from the Upper Niagara red clay, near Louisville.
9. Right lateral view of a small corallum.
10. View of the calyx of a corallum.
11. Lateral view of a small gemmiferous corallum.
12. View of the calyx of the parent corallet, with gems adherent.

The last four specimens are from the Upper Niagara red clay, near Louisville.

With the exception of specimen 5, the examples figured in this Plate belong to the collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 109.

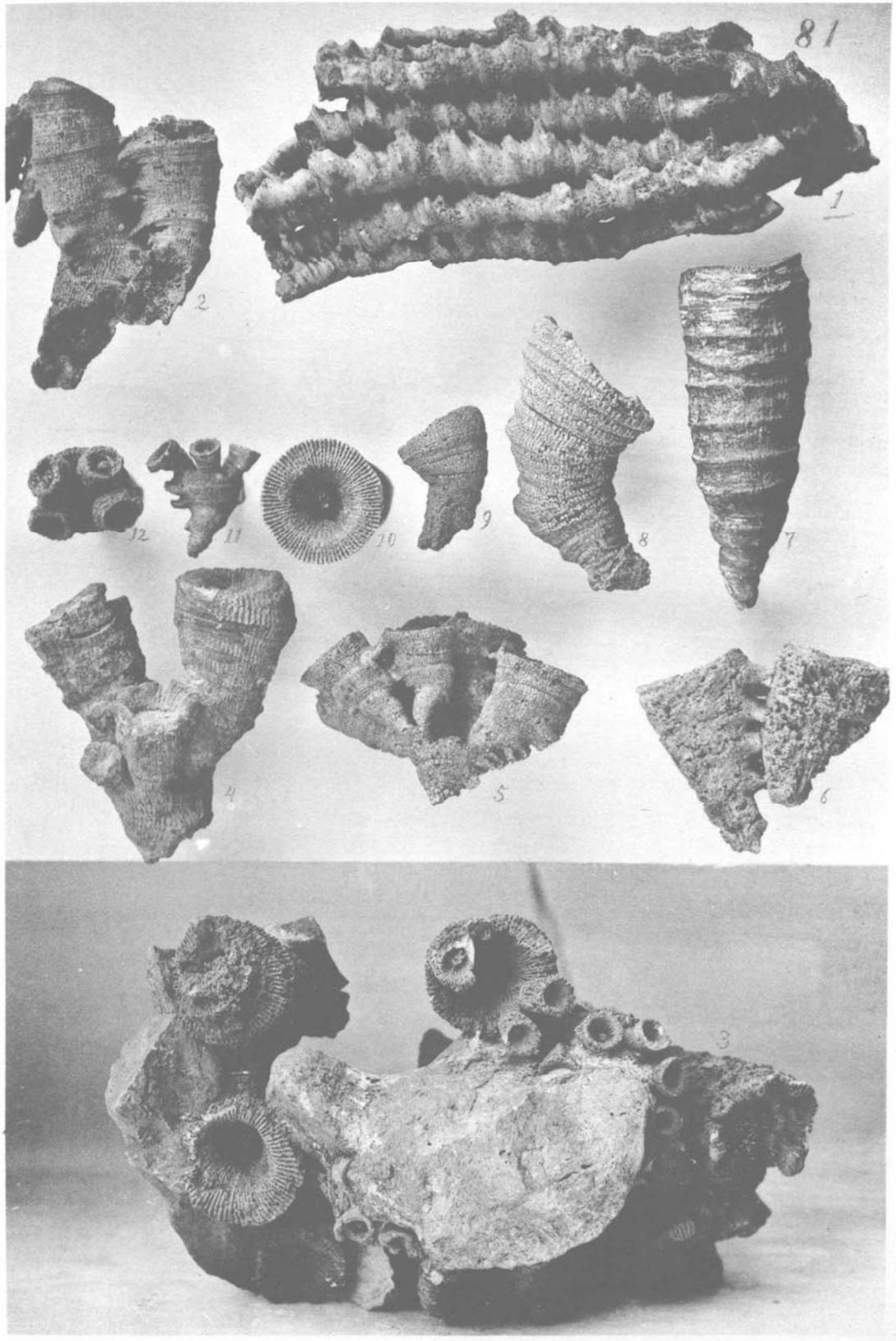


PLATE 110.

ERIDOPHYLLUM RUGOSUM.

Oblique sectional view of corallets (prostrate), from the red clay of the

Upper Niagara, near Louisville.

Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 110.

