

PLATE 81.

CYATHOPHYLLUM POCILLUM, Nov. Spec.

Devonian.

1. Central view of a rapidly expanding corallum. Collection of Mr. McConathy.
2. Central view of a corallum of typical size and shape. Collection of the author.
3. Calyx of a corallum. Collection of the author.
5. Corallum of gigantic dimensions, with oblique section of the calyx-wall, showing the sub-vesicular cellulose tissue of the interloculi. Collection of the author. Found in the red clay of the Middle Devonian, near Louisville.

BLOTHROPHYLLUM CORIUM, Nov. Spec.

Devonian.

4. Right lateral view of corallum, with apex flattened by attachment to an extraneous object, from the Middle Devonian red clay, near Louisville. Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 81.



PLATE 82.

CYATHOPHYLLUM FIMBRIATUM, Nov. Spec. *Devonian.*

1. Central view of a flexuous corallum, with epitheca denuded, from the blue clay of the Middle Devonian, Falls of the Ohio.
2. Right lateral view of a weathered corallum, from the same horizon and place.
3. Calyx of a corallum; the figure also shows the margins of some of the inferior invaginated calyces; from the Middle Devonian red clay, near Louisville.

Collection of the author.

CYATHOPHYLLUM INSIGNE, Nov. Spec. *Devonian.*

4. Right lateral view of a jejune corallum, with apical scar of attachment during growth.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 82.

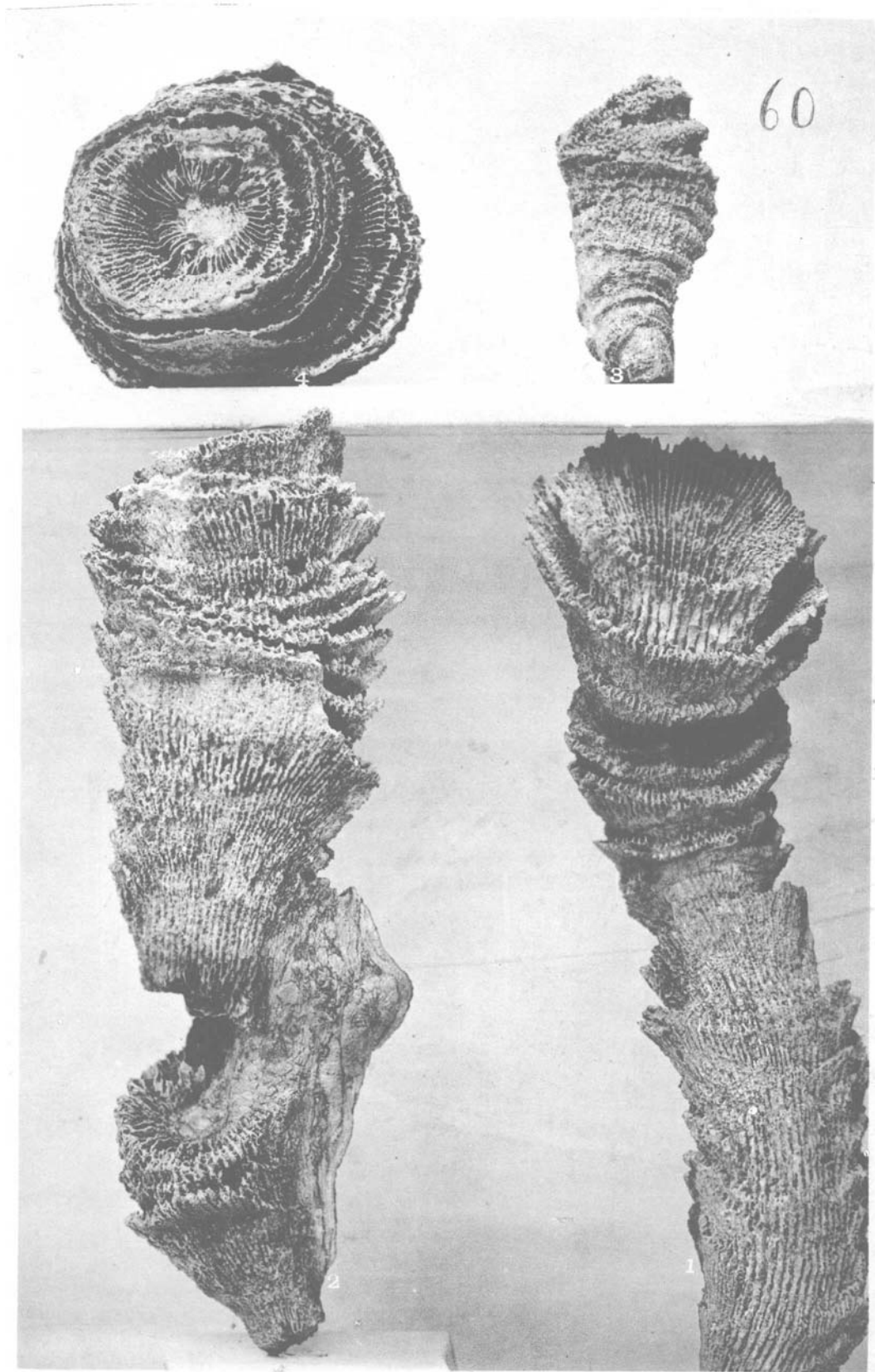


PLATE 83.

CYATHOPHYLLUM MULTICRENA, Nov. Spec. *Devonian.*

1. Right lateral view of a corallum of slender habit, from the Middle Devonian red clay, near Louisville.
2. Left lateral view of a symmetrical corallum of average size, from the same horizon and neighborhood.
3. Right lateral view of a young corallum, from the blue clay ^of the Middle Devonian, Falls of the Ohio.
4. Calyx of a corallum.
5. Calyx of a very large corallum of which the circular elevated rim of the diaphragm has been fortuitously broken down.

Examples 4 and 5 are from the horizon and locality of example 3.

CYATHOPHYLLUM OEDIPUS, Nov. Spec. *Devonian.*

6. Left lateral view of a small corallum, from the Lower Devonian ferruginous clay, near Louisville.
7. Central view of a small corallum.
8. Left lateral view of a corallum of medium size.
9. Right lateral view of a corallum.

Examples 7, 8, 9, are from the horizon and vicinage of example 6.

CYATHOPHYLLUM FLOS, Nov. Spec. *Niagara.*

10. Calyx view of a corallum from the Upper Niagara white clay, near Louisville.

CYATHOPHYLLUM CORALLIFERUM. *Devonian.*

11. Calyces of corallets, varying in size, imbedded in Stromatopora, as is usual with the species; from the blue clay of the Middle Devonian, Falls of the Ohio.

CYATHOPHYLLUM PUMILUS, Nov. Spec. *Devonian.*

12. Left lateral view of a corallum slightly below medium size, with apical scar; from the Middle Devonian blue clay, Falls of the Ohio.

CYATHOPHYLLUM WINCHELLI, Nov. Spec. *Devonian.*

13. Right lateral view of a corallum of average size, with small circular apical scar.
14. Calyx of a corallum.

From the Middle Devonian blue clay, Falls of the Ohio.

The examples figured in this Plate are from the collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 83.

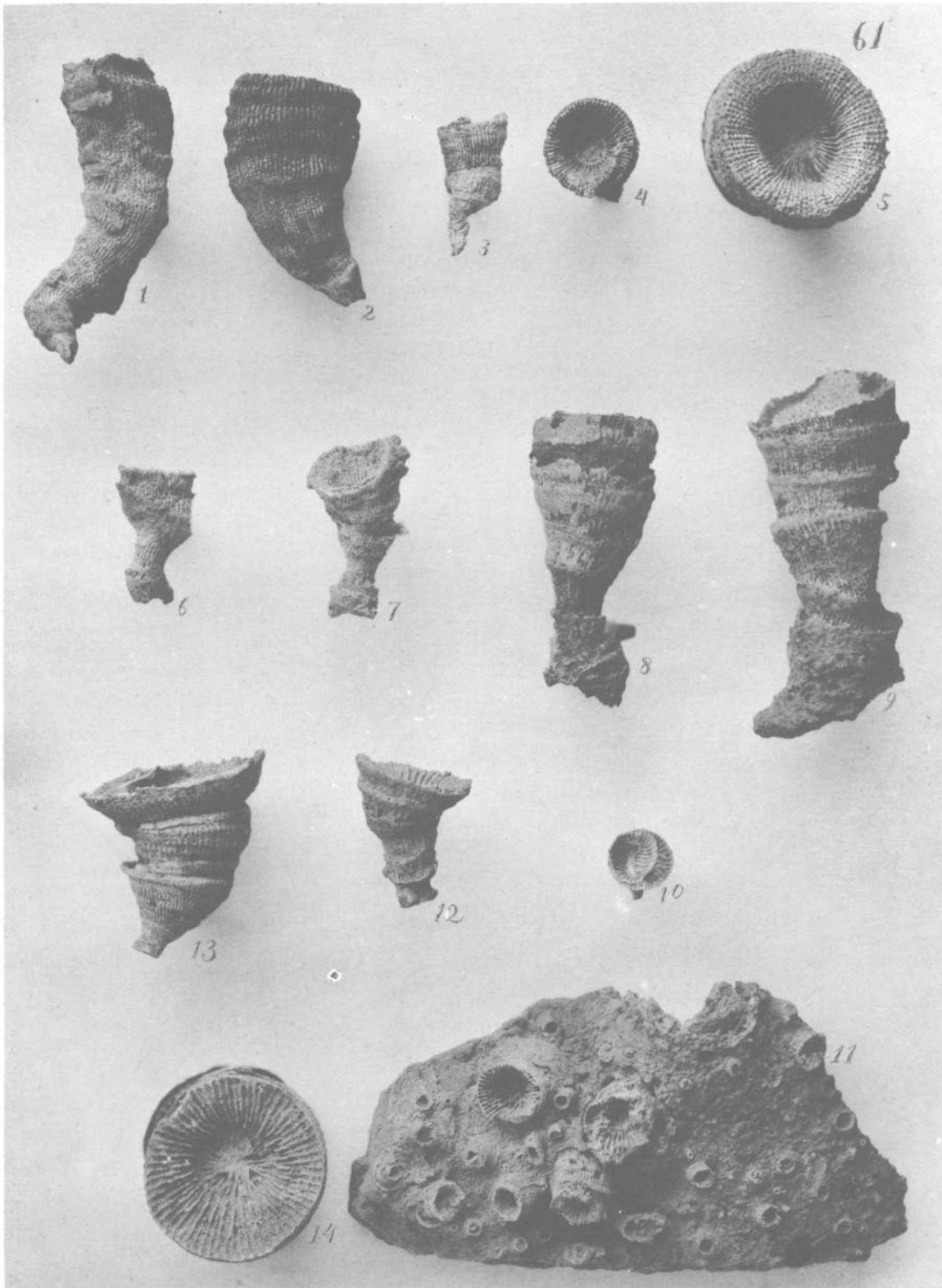


PLATE 84.

CYATHOPHYLLUM OEDIPUS, Nov. Spec.

Devonian.

Composite corallum, partly imbedded in rock matrix, from the

Lower Devonian, Falls of the Ohio.

Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 84.

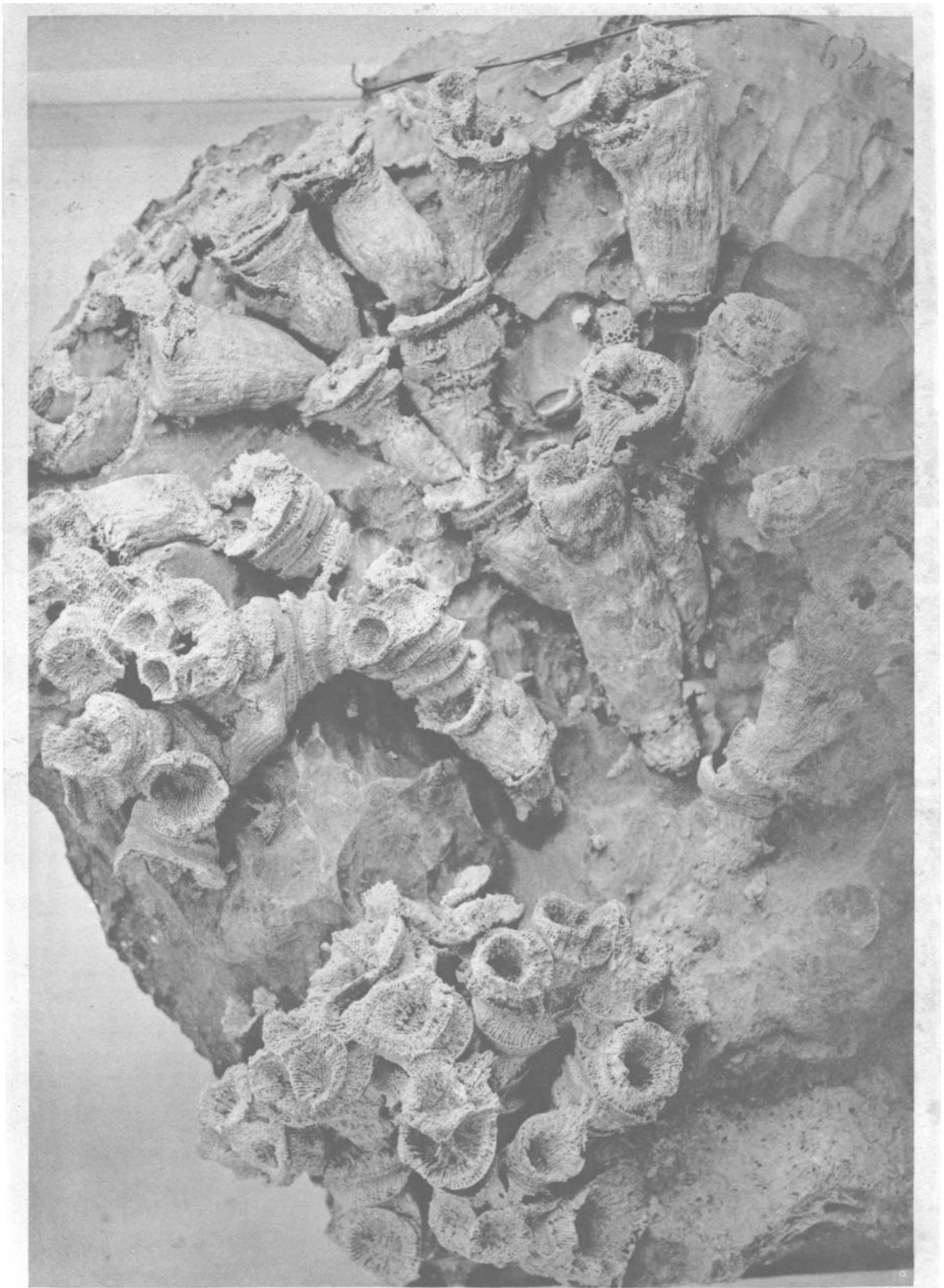


PLATE 85.

CYATHOPHYLLUM ROBUSTUM.

Devonian.

1. Adult corallum: left lateral view.
2. Right lateral view of a corallum.
3. Calyx of a corallum, the linear edges of whose lamellae are broken down so as to show the cellulose inner walls.
4. Right lateral view of a young corallum.
5. (Central specimen.) View of calyx and central exterior of an unsymmetrical jejune corallum, with well-preserved acute lamellae but abnormally shaped diaphragm.

The examples figured were cut from the Lower Devonian rocks, Falls of the Ohio.

Example 4 is from the collection of Mr. Gaines; the others from the collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 85.

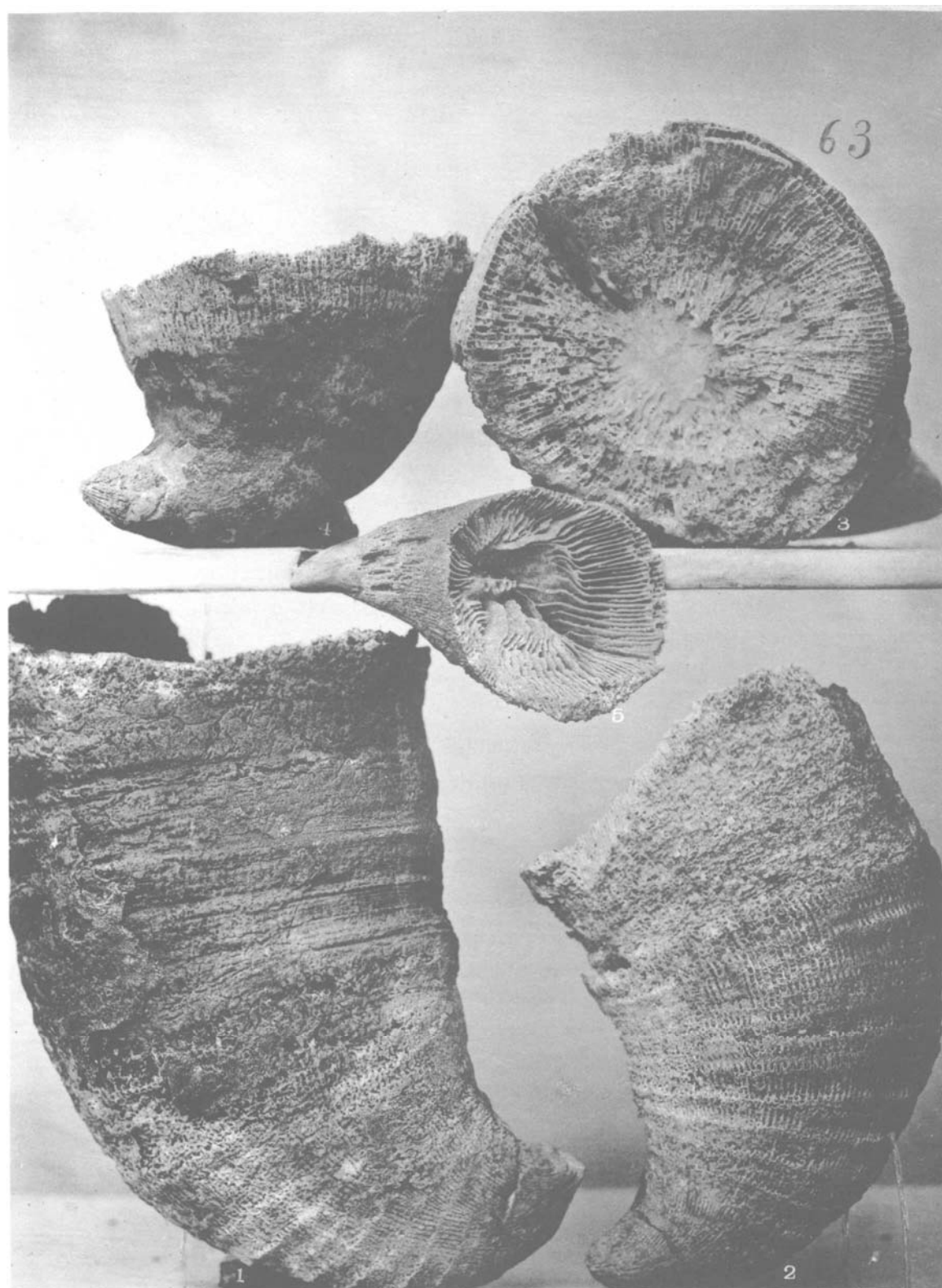


PLATE 86.

CYATHOPHYLLUM RADICULA.

Niagara.

1. Left lateral view of large corallum, with the gem of an inferior calyx still adherent, from the Upper Niagara white clay, near Louisville. Collection of Mr. Gaines.
2. 3. 4. Typically flexuous coralla: example 4 from the Upper Niagara red clay, the others from the slightly lower horizon of the white clay, near Louisville. Collection of the author.
5. A sessile corallum, with calycinal gem, from the horizon and neighborhood of example 4. Collection of the author.
6. Right lateral view of a stout sessile corallum, with inchoate root-like processes of attachment, common to most Niagara cyathophylloids; from the horizon and locality of example 4. Collection of the author.

CYATHOPHYLLUM TORNATUM, Nov. Spec.

Devonian.

7. Left lateral view of a corallum from the inferior stratum of the dark-red encrinal-limestone clay of the Upper Devonian, near Louisville. Collection of the author.
8. Exterior view of a corallum, showing rounded apex and wrinkled epitheca, from the horizon and neighborhood of example 7. Collection of the author.
9. Calyx of a corallum, from the same horizon and place. Collection of the author.
10. 11. Left lateral views (prostrate) of unusually long and slender coralla, from the horizon and vicinage of the previous examples. Collection of the author.

CYATHOPHYLLUM SCYPHUS.

Devonian.

12. Right lateral view of a corallum of geniculated form.
13. Left lateral view of a corallum of medium size, with circular apical scar.
14. Calyx of a corallum, with gem. From the horizon and vicinage of *C. tornatum*, figured in this Plate. Collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 86.



PLATE 87.

CYATHOPHYLLUM MULTIGEMMATUM, Nov. Spec. *Devonian.*

View of exterior apertural side of ancestral corallet. The central form is not a corallet of the community, but is held in embracement. Cut from the Lower Devonian limestone, near Louisville.

Collection of the author.

[NOTE.—Turn the Plate so as to view it from the right side.]

KENTUCKY GEOLOGICAL SURVEY.

PLATE 87.

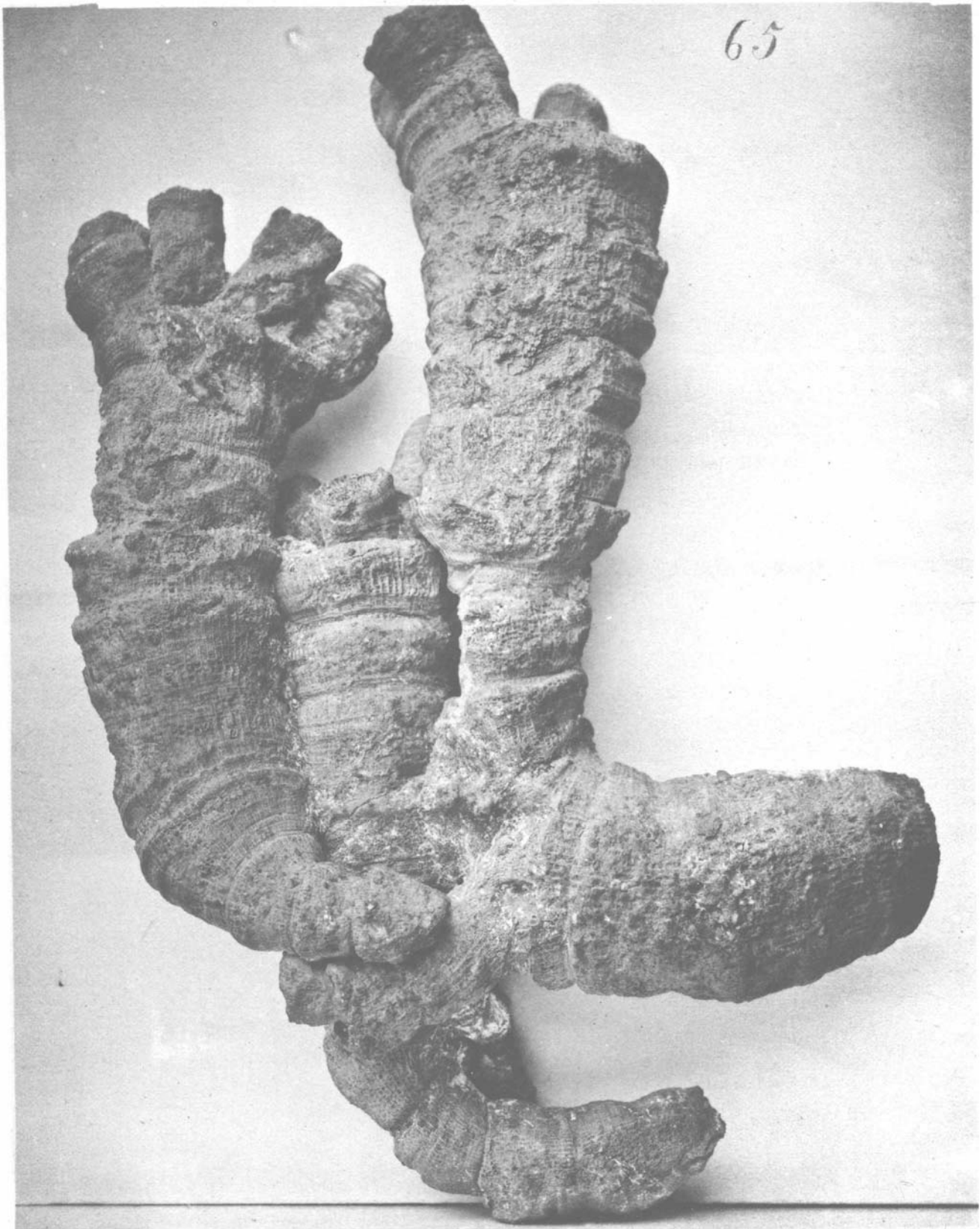


PLATE 88.

CYATHOPHYLLUM MULTIGEMMATUM, Nov. Spec. *Devonian.*

1. View along the line of the apertural gap of the ancestral corallet; right and left lateral views of its progeny. From the horizon and locality of the specimen figured in Plate 87.

CYATHOPHYLLUM LIGATUM, Nov. Spec. *Devonian.*

2. Right and left lateral views of inosculating gems detached from the maternal corallum, with epitheca removed so as to show the concave interocular dissepiments. From the Lower Devonian rocks, Falls of the Ohio.
4. Calyx of a corallum, with bell-shaped wall, from the ferruginous clay of the Lower Devonian, near Louisville.

CYATHOPHYLLUM DETEXTUM, Nov. Spec. *Devonian.*

3. View of a corallum (prone), the lower half of which shows the exterior right lateral gap-line, and the upper half the exterior surface symmetrical with the line of the apertural gap. From the Lower Devonian, Falls of the Ohio.

The specimens figured belong to the collection of the author.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 88.

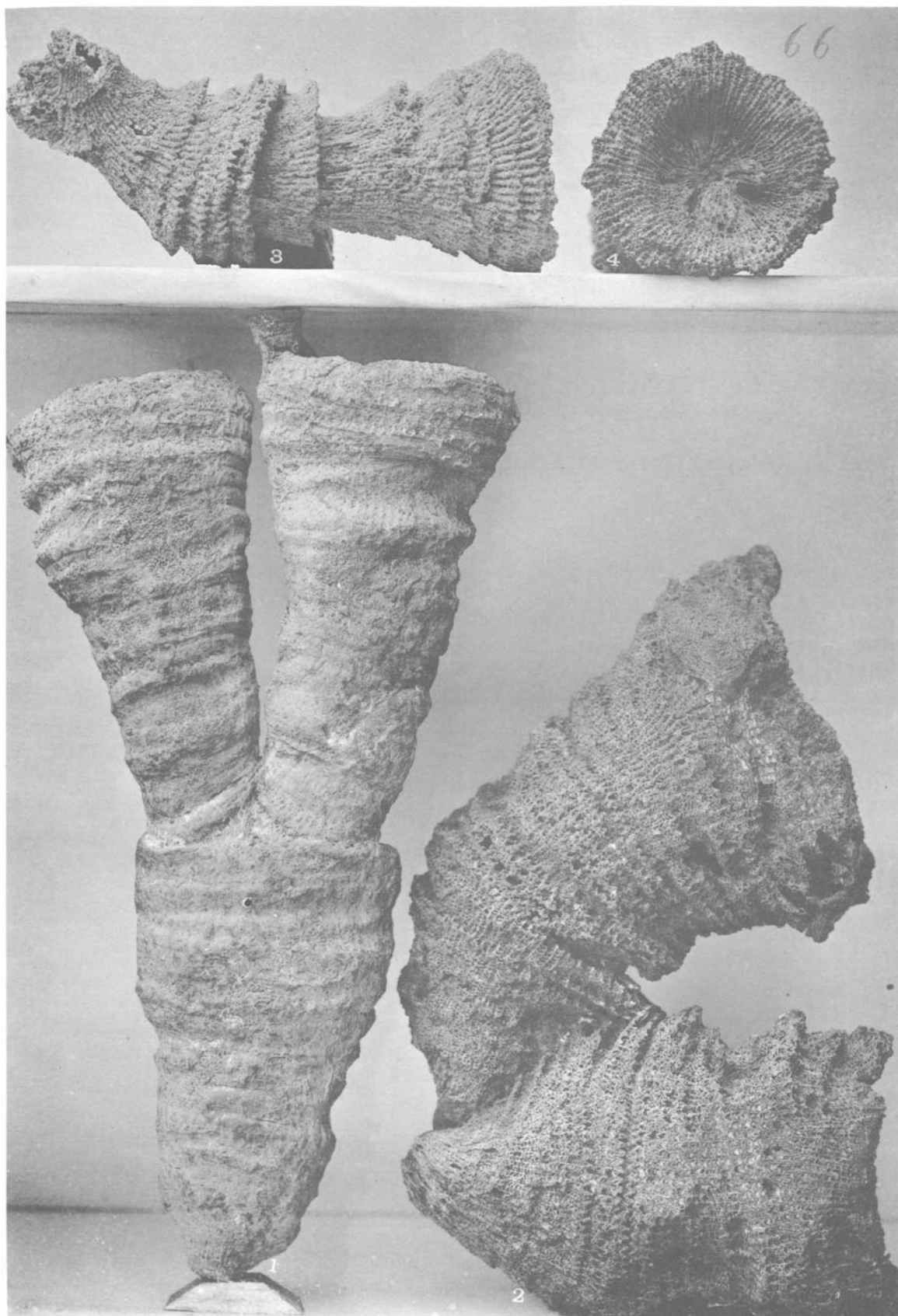


PLATE 89.

DIPHYPHYLLUM VERNEUILANUM.

Devonian.

1. Exterior lateral view of a corallum from the Middle Devonian red clay, near Louisville. Collection of the author.

CYATHOPHYLLUM MULTIGEMMATUM, Nov. Spec.

Devonian.

2. Exterior lateral views of inosculated corallets accidentally broken from their parent, from the Middle Devonian waste of Marion county, Kentucky. Collection of Mr. Linney.

KENTUCKY GEOLOGICAL SURVEY.

PLATE 89.

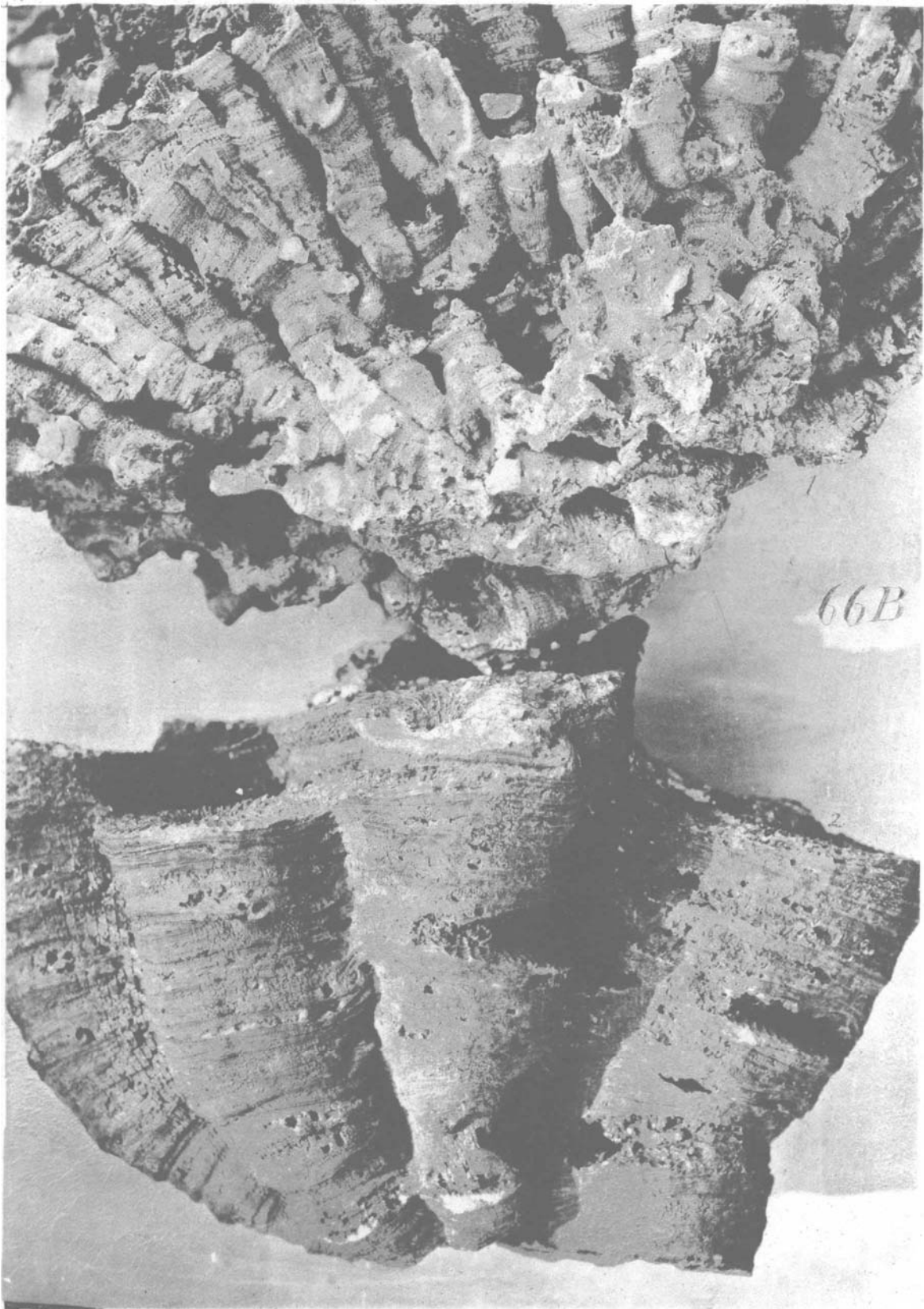


PLATE 90.

CYATHOPHYLLUM RUGOSUM.

Devonian.

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

KENTUCKY GEOLOGICAL SURVEY.

PLATE 90.

