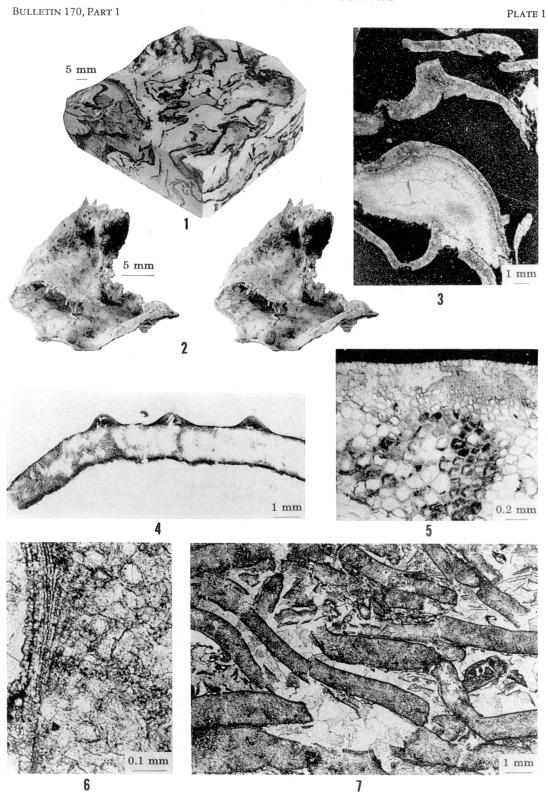
Wray, J. L., 1964, Archaeolithophyllum, an abundant calcareous alga in limestones of the Lansing Group (Pennsylvanian), southeastern Kansas: Kansas Geol. Survey, Bull. 170, pt. 1, p. 1-13.

## **Explanation of Plate 1**

Figures 1, 3-7—Archaeolithophyllum missouriense Johnson. 1. Polished block of limestone composed dominantly of specimens of this species, x 1/2. Captain Creek Limestone Member, Stanton Limestone, Wilson County, Kansas (Locality A, Sample 11). 3. Vertically oriented thin section of specimens. Note sparry calcite filling of original void beneath algal crust, x 4. Capitan Creek Limestone Member, Stanton Limestone, Wilson County, Kansas (Locality A, Sample 11).
4. Polished surface of specimen showing transverse section of three conceptacles, x 7. Captain Creek Limestone Member, Stanton Limestone, Wilson County, Kansas (Locality A, Sample 11).
5. Thin section showing details of hypothallic and perithallic cellular tissue, x 32. Captain Creek Limestone, Stanton Limestone, Wilson County, Kansas (Locality A, Sample 11).
6. Thin section showing rows of perithallic cells arranged vertically on left-hand side of photograph. Larger hypothallic cells are poorly preserved, but discernible, on right, x 90. Lansing Group, Greenwood County, Kansas (Locality C, Sample 1420).
7. Vertically oriented thin section of closely packed specimens with sparry calcite cement filling interstitial areas, x 7. Lansing Group, Greenwood County, Kansas (Locality C, Sample 1420).

**Figure 2**—*Archaeolithophyllum* (cf. *A. missouriense* Johnson). Stereoscopic pair. Silicified specimen showing a compound or envelope growth habit with spines and knobby protuberance, x 1 1/2. Hueco Limestone, Lower Permian, Dona Ana County, New Mexico.



WRAY - ARCHAEOLITHOPHYLLUM FROM THE LANSING GROUP

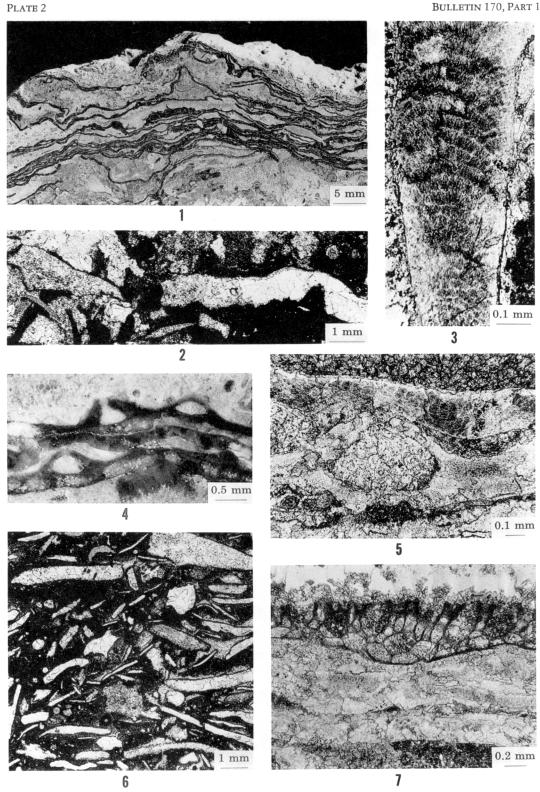
## **Explanation of Plate 2**

**Figures 1, 3-5, 7**—*Archaeolithophyllum lamellosum*, n. sp. Holotype and paratypes. Spring Hill Limestone Member, Plattsburg Limestone, Wilson County, Kansas (Locality B, Sample 2) [U.S.G.S. Paleobotany Loc. D3000]. **1.** Vertically oriented polished surface of limestone showing multi-layered crustose growth habit, x 1 1/2 (USGS a1001). **3.** Thin section of arcuate rows of hypothallic cells and thin marginal perithallus, x 90 (USGS a1002). **4.** Polished surface of several crusts and three conceptacles. A single apical aperture is shown in two of the organs, x 17 (USGS a1003). **5.** Holotype. Thin section showing cellular tissue, conceptacle, and multi-layered crustose habit, x 55 (USGS a1000). **7.** Thin section of thallus with bryozoan attached to upper surface, x 32 (USGS a1004).

**Figures 2, 6**—*Archaeolithophyllum* sp. **2.** Thin section of sample showing poorly preserved remnant cellular structure in fragment on left. Internal structure in right-hand end of elongate fragment has been completely obliterated by diagenesis, x 10. Spring Hill Limestone Member, Plattsburg Limestone, Wilson County, Kansas (Locality A, Sample 4). **6.** Thin section of sample composed almost exclusively of recrystallized fragments of this alga. Large fragment in upper right-hand corner contains remnant cellular structure, x 7. Stanton Limestone, Wilson County, Kansas (Locality B, Sample 4).

## KANSAS GEOLOGICAL SURVEY

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WRAY - ARCHAEOLITHOPHYLLUM FROM THE LANSING GROUP