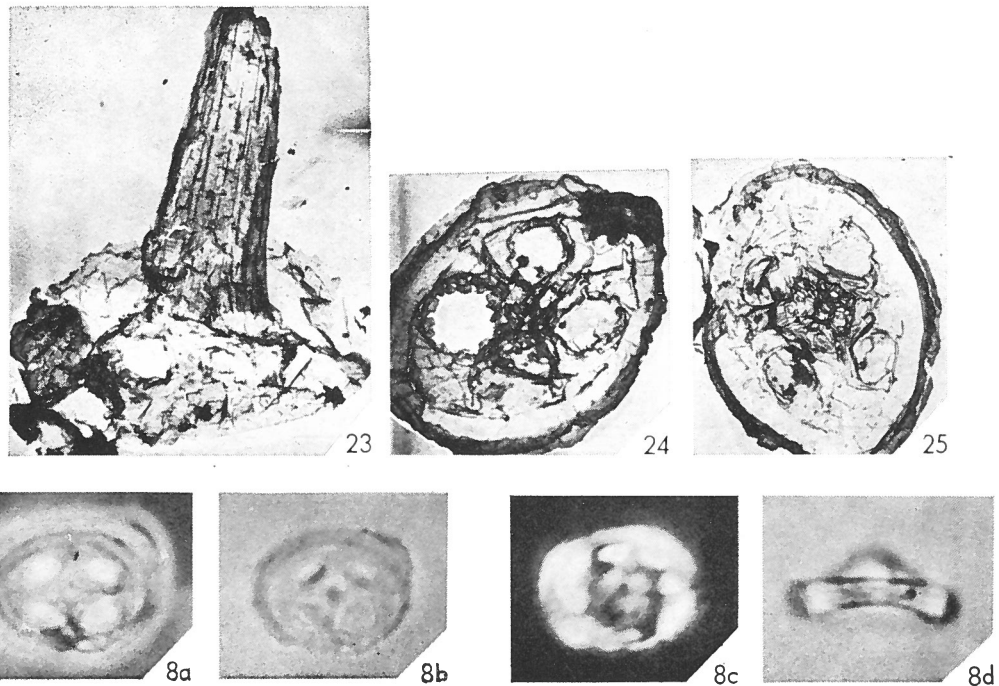


***Prediscosphaera? orbiculofenestra* GARTNER, 1968**



FIGS. 23-25, 8a-d — *Prediscosphaera? orbiculofenestra* GARTNER, n. sp., specimens from Eagle Ford Shale of Texas; 23-25) electron micrographs, x 5000, side (23) and distal (24-25) views; 8a-d) light micrographs, x 2500, proximal (8a-c) and side (8d) views, phase contrast (8a), transmitted light (8b, d), cross-polarized light (8c).

Description:

Elliptical placolith with large central opening spanned by 2 crossbars that may be surmounted by stem; cross-bars divide central area into 4 circular openings.

Description: The 2 cycles of the regularly elliptical disc are constructed of 40 to 50 elements which imbricate very slightly dextrally and have their sutures arranged radially. The cycles are of nearly equal size, with the proximal cycle slightly smaller. The open central area is spanned by crossbars aligned with the major and minor axes of the ellipse. The crossbars are double, and at the junction with the inner rim of the disc they spread out until they meet the spreading arm of the adjacent cross-bar. In this manner a nearly circular opening is formed in each quadrant of the elliptical central area. At their intersection the crossbars may be surmounted by a hollow circular stem. The stem, if present, is very peculiarly constructed. It is massive and fluted, with regularly spaced circumferential rows of low rectangular calcite prisms standing out in relief.

Maximum diameter: 8.9 μ .

Remarks:

This species differs from others of *Prediscosphaera* in having a much larger number of elements in each shield and in having circular openings in each quadrant of the central area. The taxonomic position of this species is not entirely clear, but the 2-cycle construction of the basal disc places the species definitely in the subfamily Prediscosphaeroideae.

Type level:

Upper Cretaceous (Eaglefordian).

Type locality:

Eagle Ford Shale, Texas, U.S.A.; sample 2.

Depository:

Department of Geology, University of Illinois. Holotype: UI-H-2576 (fig. 25).

Author:

Gartner S., Jr., 1968, p. 21; pl. 25, figs. 23-25; pl. 26, figs. 8a-d.

Reference:

Coccoliths and related calcareous nannofossils from Upper Cretaceous deposits of Texas and Arkansas. Univ. Kansas Paleont. Contr., Serial n° 48, Protista, Art. 1, pp. 1-56, pls. 1-28, text-figs. 1-5.