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Fungi of Bengal



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INTRODUCTION.

This paper is in continuation of two papers on Bengal Fungi (Polyporaceæ and Agaricaceæ) published in the Proceedings of the Indian Association for the Cultivation of Science, Vol. IV, Part IV and of the Science Convention of that Association, 1918. In March 1919, I took with me my collections of Bengal Polypores to Peradenya Botanic Gardens Herbarium, Ceylon. There I had the advantage of matching them with the rich collection of tropical fungi, all correctly named from the Kew Herbarium, the British Museum and the Lloyd Herbarium of America, with the kind assistance of Mr. T. Petch, the indefatigable worker on Ceylon Fungi. Twelve out of them have appeared here and others will come out in succeeding issues. Herein I express my deep sense of gratitude to our College-Council, and in particular to the President, Lt.-Col. S. P. Sarbadhikary, C.I.E., B.A., M.D., I.M.S., for enabling me to proceed to Ceylon for purposes of my study. To Mr. Petch, the famous mycologist of the Botanic Gardens Herbarium, Ceylon, my obligations are profound. Without his valuable help it would have been almost impossible for me to proceed with my work.

S. R. BOSE.

CARMICHAEL MEDICAL COLLEGE,
BELGACHIA, CALCUTTA,
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No. I.

POLYPORACEÆ OF BENGAL

PART III.

(1) *PORIA DIVERSIPORUS*, B. & BR.

Habitat :—Resupinate, growing on old bamboo usually, common in Bengal in months of July to September. Collected from the interior of Hooghly District about that time. Resupinate surface comes out entirely from the substratum on which it grows, easily peeling off as a separable skin. Hymenial surface with a thin margin all round, pores are of various forms, central ones big, elongated, and very irregular while the marginal ones are smaller and more or less round.

Setæ :—None.

Spores :—Not found.

(2) *TRAMETES LACTINEA*, BERK.

Habitat :—Dimidate, growing on dead pieces of wood. Collected from Howrah District in September 1918.

Pileus :—About 10 inches long and 4 inches broad in the form of an arc of a circle, tolerably rigid, base thicker thinning out at the margin, thickest portion would be about half an inch, pore-tubes occupying the major part of the substance about $\frac{3}{4}$ th, while trama will be about $\frac{1}{4}$ th, substance of trama yellowish internally.

Upper surface :—Dull-white, smooth, not zoned, marginal outline not continuous, partially wavy, surface rough on account of tiny projections here and there.

Lower surface :—Pores of medium size, they are regular, more or less rounded, pore-tubes dipping unequally into the trama. Colour yellowish, pore-mouths yellowish.

Setæ :—None.

Spores :—Not found.

(3) *TRAMATES VERSATILIS*, BERK.

Habitat :—Growing on old logs. Collected from Hooghly District in July 1918.

Pileus :—Thin, soft, not rigid, dimidate, base encircling the wood, margin a little bit thinner, about 3 inches long, one inch broad.

Upper surface filled with small coarse hairs, central portion dark grey, margin brownish, marked with fine concentric rings.



Lower surface :—Almost of the same colour, a little bit lighter, pores very irregular, elongated, running for certain distance parallel, become variously joined to form a network.

Setae :—None.

Spores :—Not found.

(4) *POLYPORUS LICNOIDES*, MONT.

Habitat :—Growing in groups of 2 or 3 in imbricate manner on dead wood. Collected from Darjeeling, Bengal, in August 1918.

Pileus :—Dimidate, in the form of an arc of a circle, thickness about 3 mm., internally yellow-brown, thin, hard and firm, $4-6 \times 3-4$ cm.

Upper surface :—Not hairy, distinctly rugulose, striated, brown, zoned, in some it is traversed by two or three black concentric lines.

Hymenial surface :—Dark-brown, pores very small and minute, round, pore-tubes long $5/2$ mm. and trama small $1/2$ mm.

Margin :—Thinner, involute.

Setae :—Present, thick and short 0.1 mm. long.

Spores :—Brown, oval, $6.6 \times 5 \mu$

It is a thin form of *Polyporus gilvus*.

(5) *POLYPORUS EMERICI*, COOKE.

Habitat :—Growing on dead wood in small groups in imbricate manner. Collected from Hooghly, Bengal, in September 1918.

Pileus :—Dimidate in the form of an arc of a circle, context hard and firm, $4-5$ mm. thick, internally yellow-brown, $2\frac{1}{2}-3\frac{1}{2} \times 2-3$ cm.

Upper surface :—Not hairy, brown, rugulose, zoned.

Hymenial surface :—Dark-brown with a yellow marginal outline, pores very small and minute, round, pore-tubes short $1/2$ mm.; trama large $3-5$ mm.

Margin :—Thinner, entire.

Setae :—None.

Spores :—Almost round, yellowish, 3.3μ diameter.

(6) *FOMES PALLIDUS*, PETCH.

Habitat :—Growing on a piece of wood entirely in contact with it. Collected from Tipperah, Bengal, in July 1918.

Pileus :—Entirely resupinate forming an elongated patch, it easily comes out from the substratum on which it grows, somewhat stiffens in drying up and in dried condition it shows a number of small cracks on the upper surface. About 6 mm. thick, internally blackish, in patches up to 11 cm. long and 5 cm. broad.

Upper surface :—Pale slate-coloured, bearing the hymenium, consisting of very small and minute pores, from 0.11 to 0.15 mm. diameter, which are round, lined with white ingrowths, pore-tubes in two layers usually, basal layer absent.



Margin :—Thin, revolute.

Setae :—None.

Spores :—Not found.

(7) *POLYPORUS SECERNIBILIS*, BERK.

Habitat :—Growing on dead wood in clusters in imbricate manner. Collected from Darjeeling (7000ft. above sea level) as well as Hooghly, Bengal, in August 1918.

Pileus :—Dimidate in the form of an arc of a circle, small, 2×1 cm. only, 1 mm. thick, internally yellowish, not hard, flexible.

Upper surface :—Coated with minute hairs which are soft and silky, whitish in colour, not zoned, very slightly rugulose.

Hymenial surface :—Black, pores very small and minute, round, pore-mouths dark, with a whitish involute margin.

Setae :—None.

Spores :—Not found.

(8) *POLYPORUS ZONALIS*, BERK.

Habitat :—Growing on dead wood in large groups, usually pilei developing on anything that meets the mycelium, hence a number of grasses, particles of soil, usually stick to these plants, collected from Hooghly, Howrah, and Darjeeling (7000ft. above sea level) in August and September 1918, very common.

Pileus :—Almost sessile with a short lateral stalk, several together forming a cluster usually, some very small, fan-shaped $2\frac{1}{2} \times 2\frac{1}{2}$ cm., others bigger, semicircular 5×3 cm., tolerably rigid, about 1 mm. thick, internally yellowish.

Upper surface :—Yellow-brown, distinctly zoned, not hairy, rugulose.

Hymenial surface :—Livid-gray, pores round, very small and minute, pore-tubes long, trama small.

Margin :—Thin with a thick yellowish line, involute.

Setae :—None.

Spores :—Not found.

(9) *TRAMETES OCCIDENTALIS*, KL.

Habitat :—On dead wood clasping it by its narrow base, some grow on both sides of the wood and some on all sides, and there are some which are resupinate hardly showing any free surface. Collected from Hooghly, Assam, Howrah (Bengal) in August, September, October 1918, very common. There is a very thin variety of it (1 mm. thin) from Bongong, Jessore, which is very big about 20 cm. broad, about 60 cm. long.

Pileus :—Dimidate, some are resupinate, some partly resupinate, partly free, of various forms and all sizes, some are fan-shaped, some in the form of an arc, some roundish, some of the resupinate ones thick globular in the form of a ball, substance in some cases quite thin, in others central portion thick, margin thin, and the globular resupinate ones very thick like a solid ball, thin ones coriaceous, thick ones somewhat rigid.

Upper surface :—Hairy, zoned, yellowish, traversed by some greenish concentric rings,



hairs towards the margin are soft and smooth, while those at other parts are a bit stiff and rough.

Hymenial surface :—Yellow, pores medium, usually regular and round, at places become elongated, depending on the mode of growth, trama small.

Margin :—Entire.

Setae :—None.

Spores :—Not found.

(10) *TRAMETES PERSOONI*, FR.

Habitat :—On dead wood, on pieces of bark of trees, sometimes on the inner side of the bark. Collected from Hooghly, Assam, Darjeeling, (7000ft. above sea level) in August September, November 1918, very abundant.

Pileus :—Partly resupinate, partly free, in some cases entirely resupinate, becomes somewhat rigid in drying up, free surface usually in the form of an arc, resupinate in patches, of different sizes, some $4\frac{1}{2}$ cm. across, others 8 cm. across and there are various intermediate ones, and there are some which are still bigger ; about 2 mm. thick, internally yellowish.

Upper surface :—Usually brown with a white margin, in some cases it turns almost black, mostly not zoned, some, (especially black Darjeeling ones) are zoned, in some surface rendered rough by small white globular outgrowths, not hairy.

Hymenial surface :—Yellowish, pores elongated and irregular mostly, few towards the margin are round, pores in resupinate ones growing in vertical plane become all elongated.

Margin :—Thinner, fairly entire.

Setae :—None.

Spores :—Not found.

(11) *LENZITES REPANDA*, PERS.

Habitat :—Growing sometimes 3 or 4 together in imbricate manner on dead branches, on dead log. Collected from the interior of Hooghly District, September 1918, I also collected some from Peradenya Gardens, Ceylon, in April 1919.

Pileus :—Dimidate, the short base (which in some cases becomes black) clasping the dead branch on which it grows usually in the form of an arc of a circle, soft when young, stiffens in drying up, 6—15 cm. long, 4—10 cm. broad, 7—10 mm. thick, internally whitish.

Margin :—Thinner than the central portion, almost entire.

Upper surface :—Smooth, white, becomes yellowish when old, usually concentrically zoned.

Hymenial surface :—Whitish, sometimes yellowish also, gills small, narrow, variously united to form a labyrinthine maze, trama about $\frac{1}{2}$ of the total thickness.

Setae :—None.

Spores :—Not found.

(12) *FOMES APPLANATUS*, PERS.

Habitat :—Growing on bark of dead stump of trees. Collected from Khulna in April 1919, from the interior of Tipperah District in June 1918, from the interior of Hooghly District in September 1919 and also collected one from Peradenya Gardens, Ceylon, in April 1919.



POLYPORACEAE OF BENGAL.

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Pileus:—Almost sessile or with a short lateral stalk, somewhat circular, hard, 7—12 cm. long, 5—9 cm. broad, about 1 cm. thick, internally brown.

Upper surface:—Smooth, not laccate, dull-brown, usually concentrically zoned, in some cases slightly rugulose.

Hymenial surface:—White, when young soft, stiffens in drying up, pores very small, regular and round, pore-tubes $\frac{1}{2}$ to $\frac{3}{4}$ rds of the total thickness, in some cases white hymenium quite distinct from the context.

Margin:—With a thick white bordering line on the under surface.

Setae:—None

Spores:—Oval, brownish, $6.6 \times 3.3 \mu$

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(I) *PORIA DIVERSIPORUS*.

Plates I, II & IV.

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A.—Hymenial Surface.



B.—Sectional View.

(3) *TRAMETES VERSATILIS*.



A.—Upper Surface.



B. Hymenial Surface.

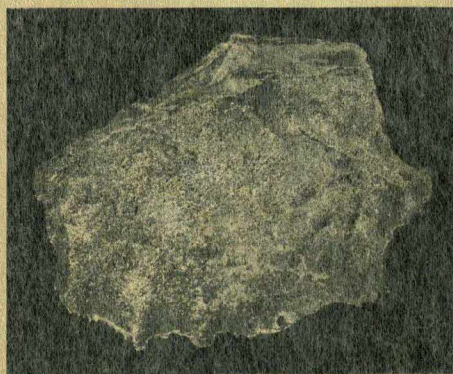


C. Sectional View.

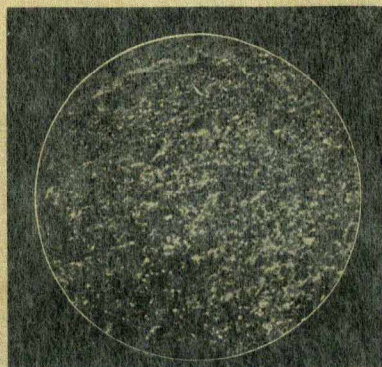
(4) *POLYPORUS LICNOIDES*.



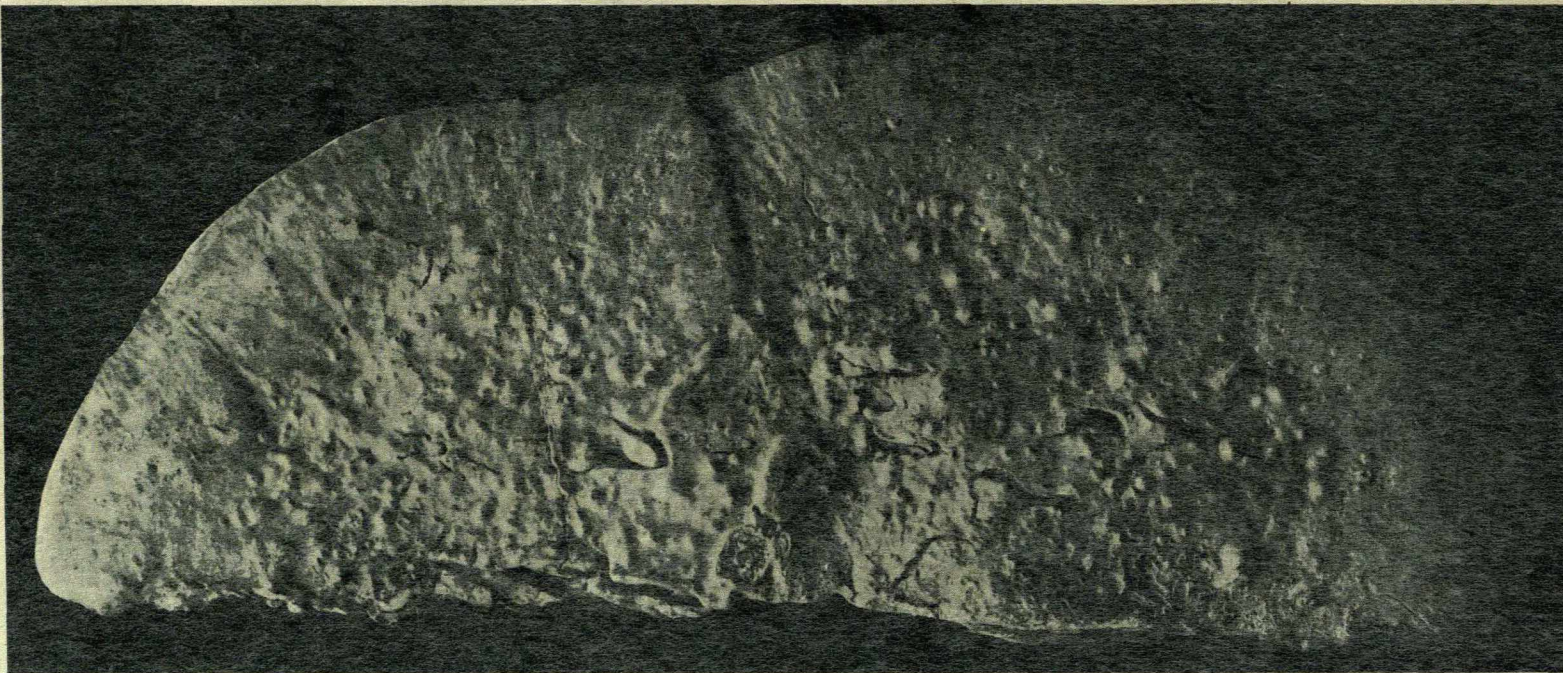
A.—Upper Surface.



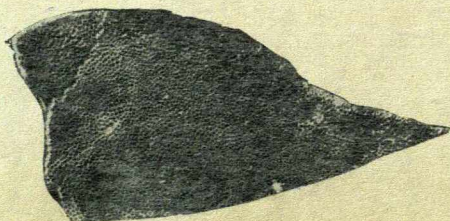
B.—Hymenial Surface.



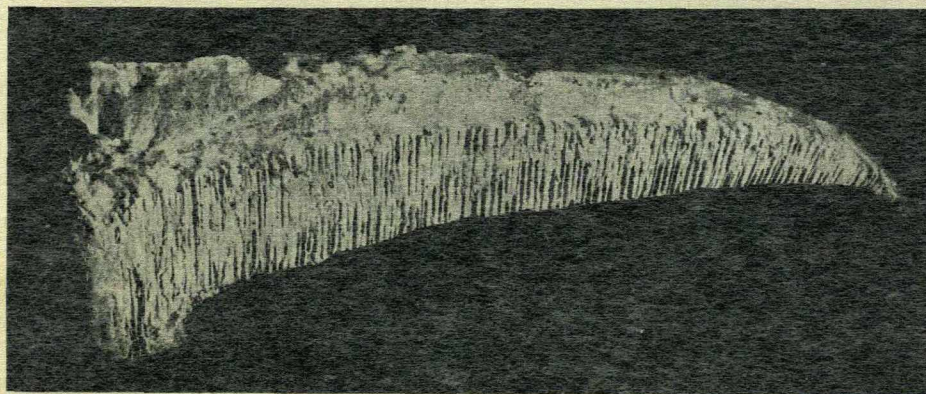
(2) TRAMETES LACTINEA.



A.—Upper Surface.

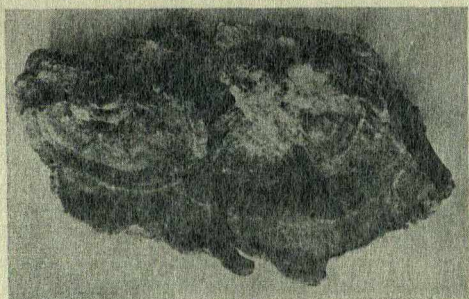


B.—Hymenial Surface.



C.—Sectional View.

(5) POLYPORUS EMERICI.



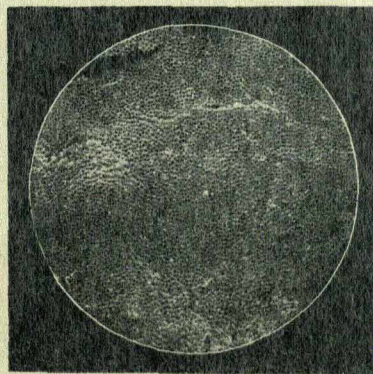
A.—Upper Surface.



B.—Hymenial Surface.

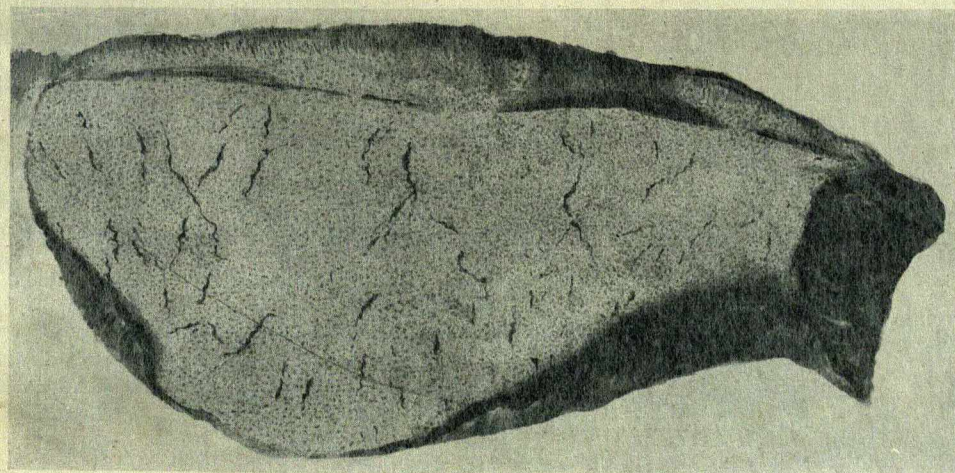


C.—Sectional View.

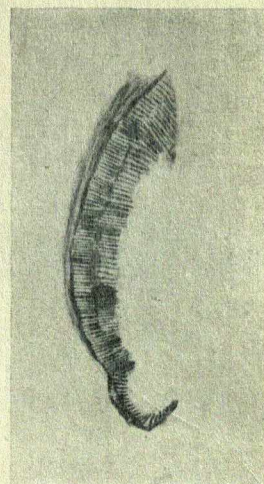


D.—Portion of B. ($\times 3$)

(6) FOMES PALLIDUS.



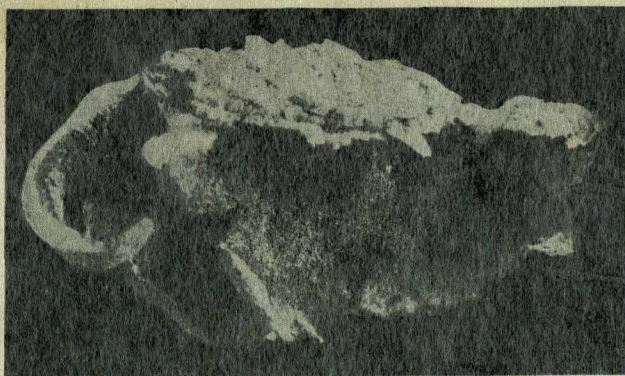
A.—Hymenial Surface.



B.—Sectional View.

(7) POLYPORUS SECERNIBILIS.

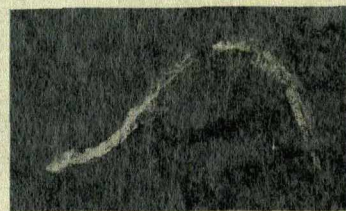
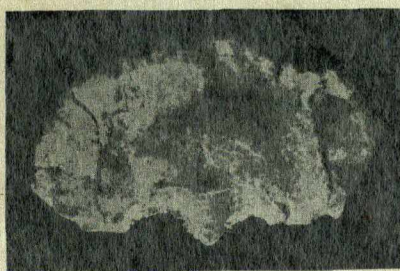
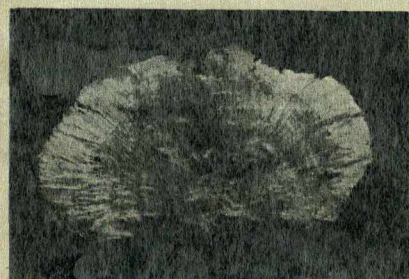
Plates VII, VIII & IX



A.—Upper Surface.

B.—Hymenial Surface (×3)
 (8) POLYPORUS ZONALIS.

C.—Sectional View.

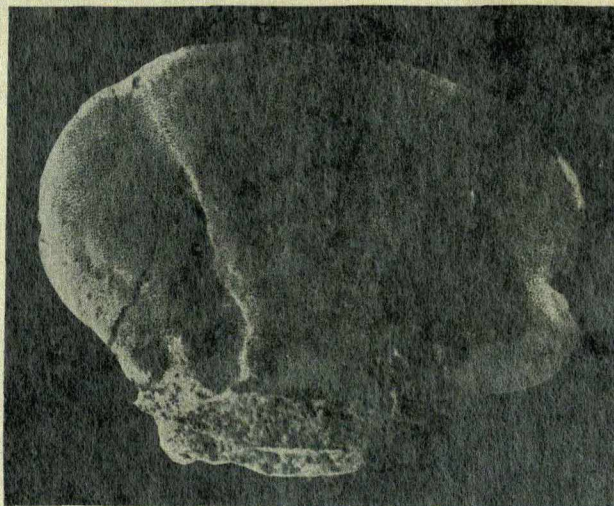
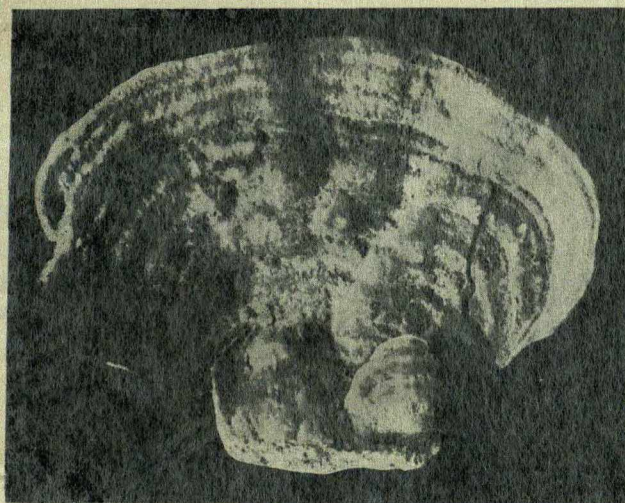


A.—Upper Surface.

B.—Hymenial Surface.

C.—Sectional View.

(9) TRAMETES OCCIDENTALIS.



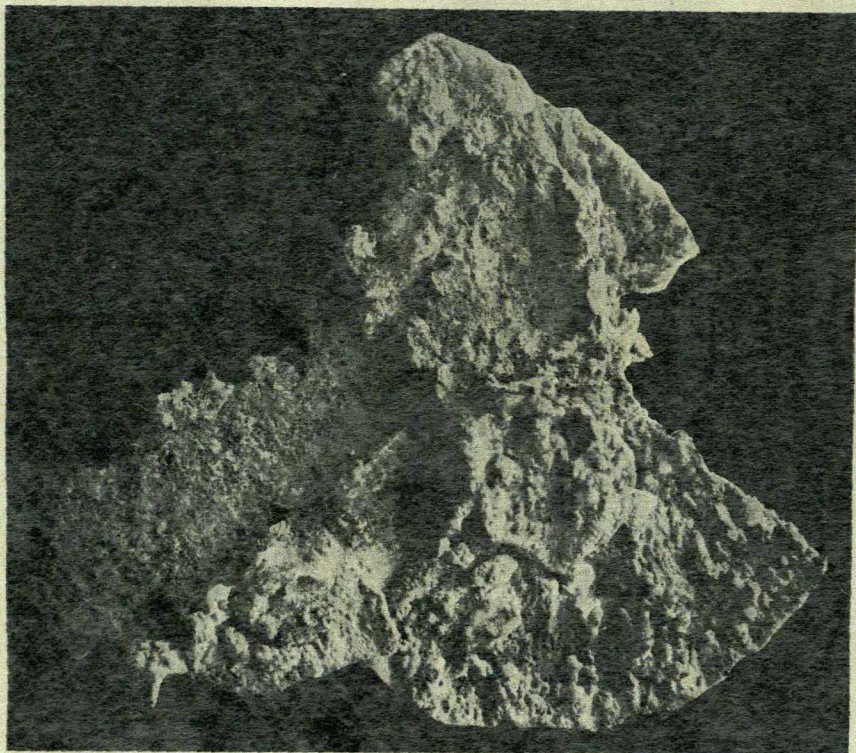
A.—Upper Surface.

B.—Hymenial Surface.

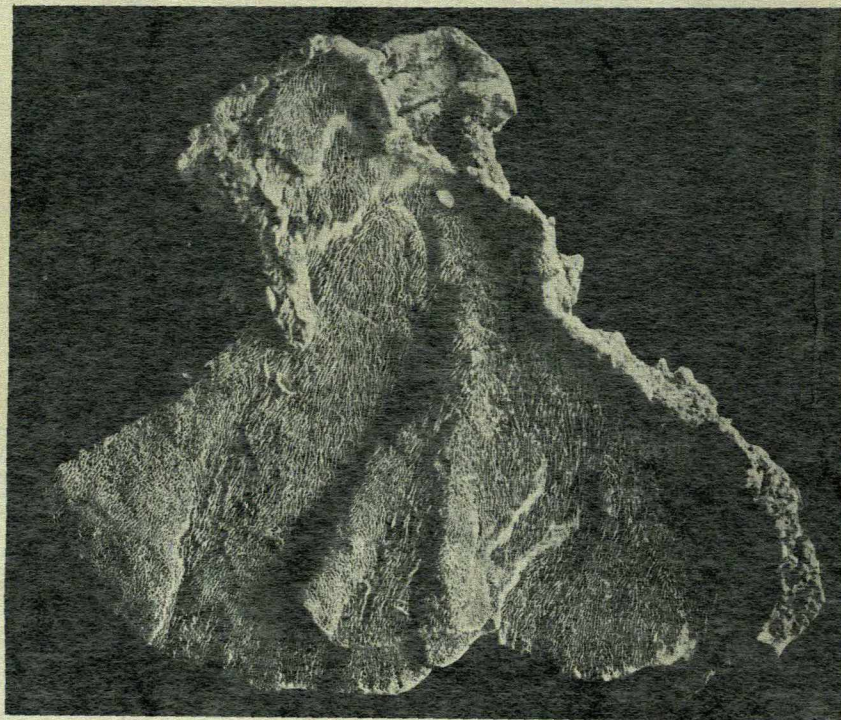


C.—Sectional View.

(10) TRAMETES PERSOONI.



A. — Upper Surface.

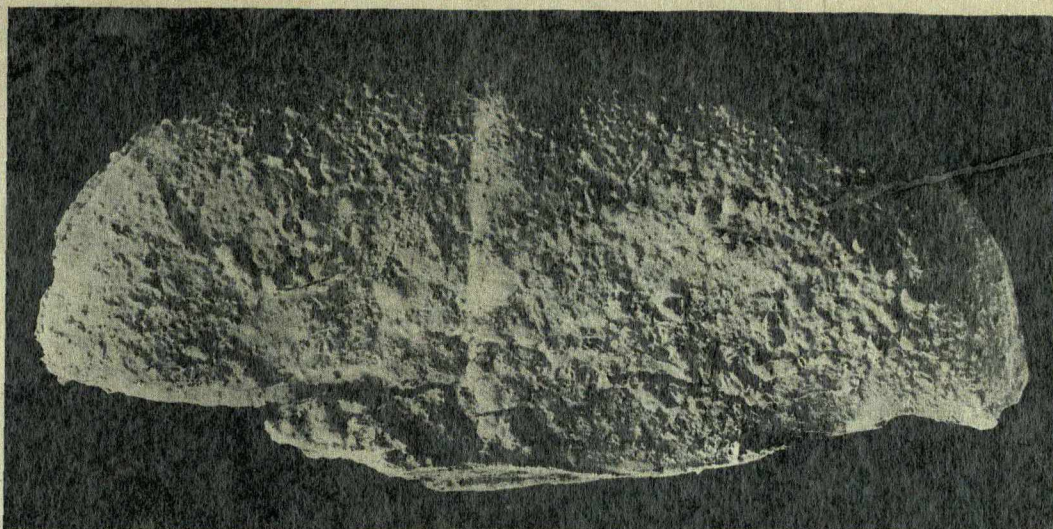


B. — Hymenial Surface.

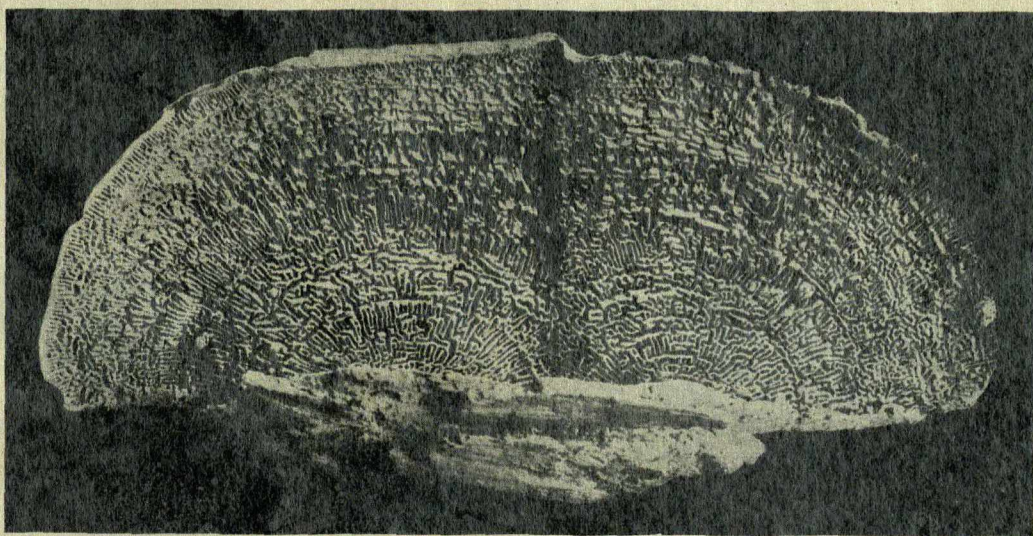


C. — Sectional View.

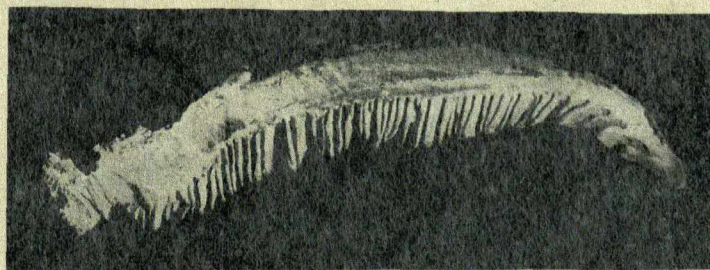
(II) LENZITES REPANDA.



A.—Upper Surface.



B.—Hymenial Surface.

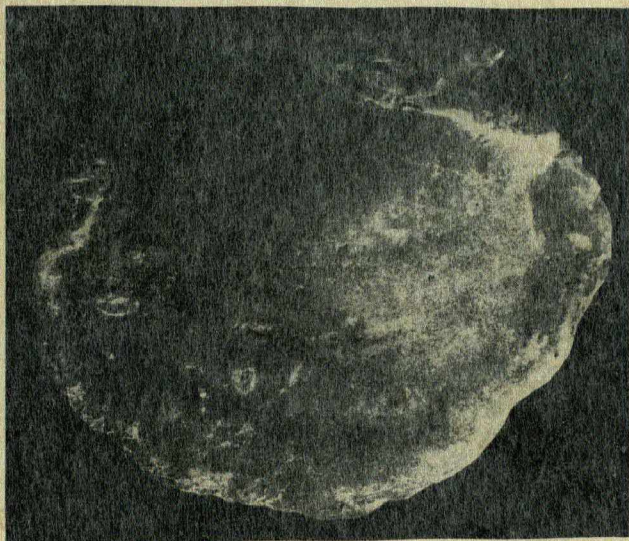


C.—Sectional View.

(12) FOMES APPLANATUS.



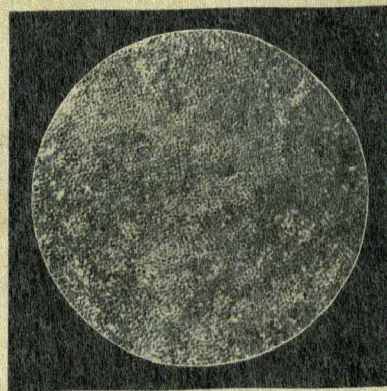
A.—Upper Surface.



B.—Hymenial Surface.



C.—Sectional View.



D.—Portion of B. (×3)

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