

A NEW VARIETY OF SEPEDONIUM MUCORINUM HARZ.

SEPEDONIUM MUCORINUM HARZ. VAR. BOTRYOIDES.

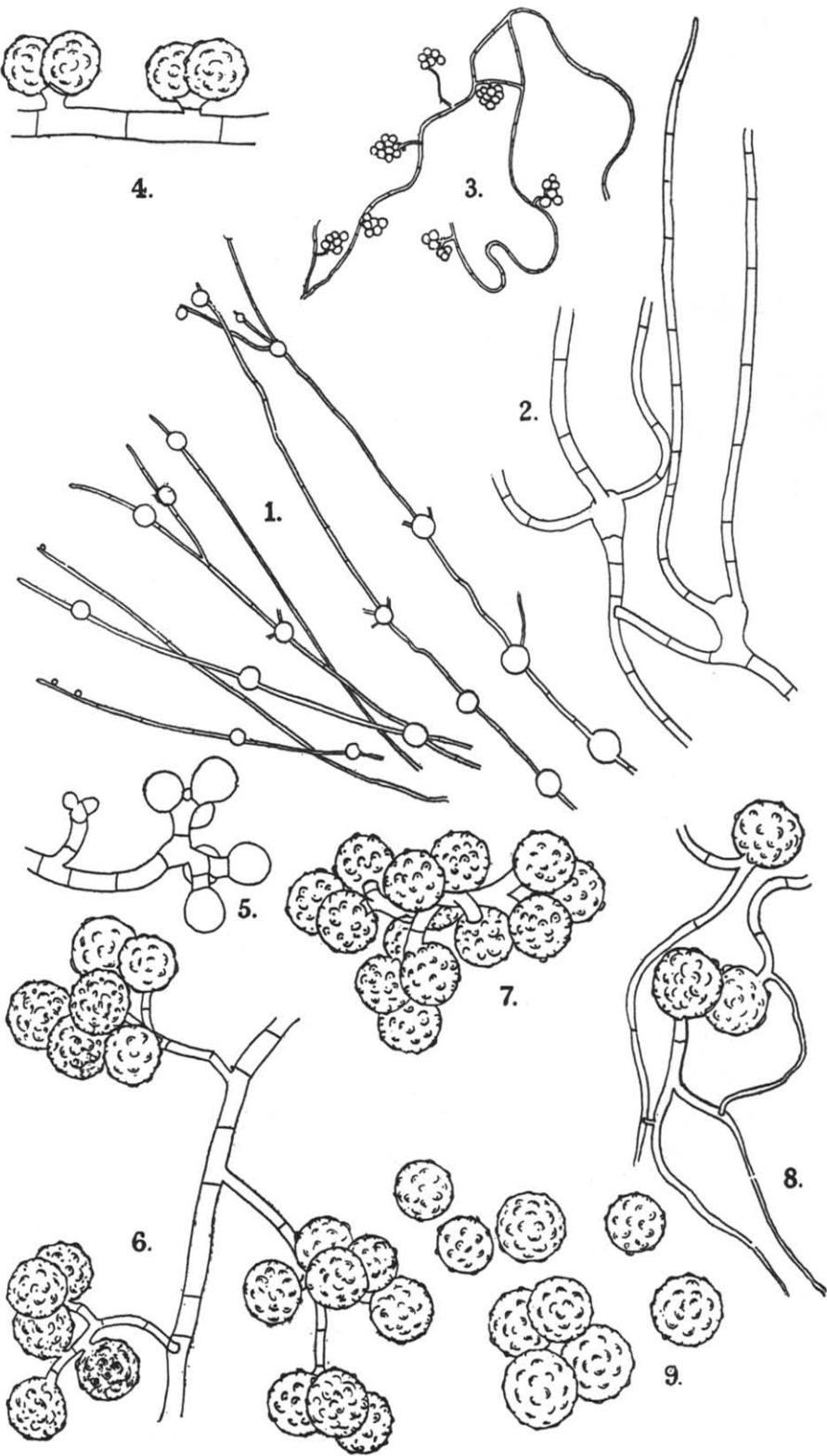
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This fungus which seems to agree in many details with *Sepedonium mucorinum* Harz, recorded for Germany and Austria where it was found growing on various Mucors, has recently appeared in the Botanical laboratory of Birmingham University, on soil cultures containing decomposing earthworms or sticklebacks.

The fungus can very easily be cultivated on a special preparation of gelatine; here it forms a dense mycelium, pale buff in colour, granular in appearance because of the masses of conidia produced, and zoning is always very well marked. In a petri-dish culture the growing margin looks silky and the radiating hyphae when examined with a low power lens, appear to be studded over with rounded drops (Fig. 1). These drops are really large swellings in the hyphae where branches arise (Fig 2). H connections between hyphae, even between germ tubes are frequent (Figs. 2, 3, 8).

The conidia occur in great quantities and are very large, 13-17 μ in diam., colourless and at first smooth (Fig. 5) but later evenly warted (Fig. 9). These are never deeper in colour than pale buff although Harz describes those of *Sepedonium mucorinum* as "hyaline then rosy or somewhat brownish." The conidiophores are of varying lengths and are usually branched (Fig. 7) rarely short and simple as described by Harz for *S. mucorinum*. The conidia germinate very easily, within twenty-four hours producing septate germ tubes which often anastomose with one another (Fig. 8), and in hanging-drop cultures after three or four days an abundant mycelium of branching and anastomosing hyphae copiously covered with conidiophores (Fig. 3). This fungus has never been seen growing on the Mucors, which frequently appeared in the soil-cultures in which it was found, although the habitat of *Sepedonium mucorinum* Harz is described as "on various Mucors."

Since this species differs from *S. mucorinum* only in the aforementioned details, it seems advisable to consider it merely a variety having instead of simple short conidiophores, long con-



J. S. B. E. del.

West, Newman proc.

SEPEDONIUM MUCORINUM Harz. var. *BOTRYOIDES* Bayliss Elliott.

idiophores branched at the apex with the conidia appearing in clusters of nine or more, hence the name *S. mucorinum* var. *botryoides*.

Sepedonium mucorinum Harz.

Mycelium delicate, branched, hair-like, creeping; fertile hyphae simple, short, ascending; conidia solitary or in threes, globose, at first smooth, then evenly muriculate, hyaline, then rosy or somewhat brownish, $17-18\mu$ in diameter, on various Mucors, Germany, Austria.

Sepedonium mucorinum Harz, var. *botryoides*.

Mycelium delicate, branched, hair-like, creeping; conidiophores ascending, long, branched near the apex, rarely simple; conidia in clusters of nine or more, arranged in threes at the end of each branchlet, rarely solitary, globose, at first smooth, then evenly warted, hyaline then pale buff, $13-17\mu$.

In soil containing decaying animal matter.

Mycelio tenero, ramoso, capillaceo, decumbente, conidiophoris adscendentibus, longis, apicem versus ramosis, raro simplicibus, conidiis nonis vel pluribus agglomeratis, ternis in ramulis, terminalibus digestis, raro solitariis, globosis, primo levibus dein aequaliter verrucosis, hyalinis, deinde subochraceis.

In terra pingui.

EXPLANATION OF PLATE 7.

- Fig. 1.—Growing margin of a culture showing round swellings, x 93.
- Fig. 2.—Small swellings, x 504.
- Fig. 3.—Fertile hyphae showing clusters of conidia and anastomosing hyphae, x 93.
- Fig. 4.—Conidia from a nearly exhausted culture, x 800.
- Fig. 5.—Young conidiophores and young smooth conidia, x 800.
- Fig. 6.—Older conidiophores and conidia with very rough surface, x 800.
- Fig. 7.—Large clusters of conidia, x 800.
- Fig. 8.—Germinating conidia showing anastomosing germ tubes, x 800.
- Fig. 9.—Mature conidia, x 800.