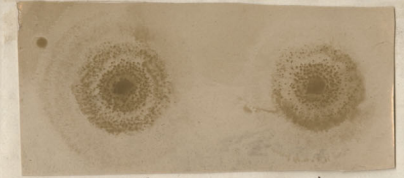
THE SHAW SCHOOL OF BOTANY.
WILLIAM TRELEASE,
ENGELMANN PROFESSOR OF BOTANY.
H. VON SCHRENK,
INSTRUCTOR IN CRYPTOGAMIC BOTANY.
W. H. RUSH,
INSTRUCTOR IN PHANEROGAMIC BOTANY.



No 1

sclerotia (from cactus agar)
(x1)

ST. LOUIS, MO., May 31, 1899.

Dr. P. A. Saccardo, -

Dear Sir, -

Your kindness in answering some questions with regard to the spores in wood of Taxodium distichum sent you through Prof. Trelease some time ago prompts me to send you some fungi with respect to which I would ask your kind opinion. The first one (No 1) is the fruiting form which I have developed in cultures from various species of Mamillaria. The fungus is very destructive to all of the Mamillaria species in our greenhouses, and spreads very rapidly. On agar agar potatoes, gelatin etc. it grows rapidly, and within a few days forms a very large number of black sclerotia. These sclerotia when transferred to a new culture tube soon form masses of mycelium ~~thlamus~~ as shown

in this photograph. On sterilized pieces of Mamillaria the fruiting bodies form in 3-4 days, and curiously enough they will form only on the epidermis. Pieces from the pulp of the cactus form only sclerotia. The fruiting bodies are evidently some of the Tuberculaceae, closely allied to Leptothichum possibly. As you will see the acervuli are subglobose with numerous setae. The spores are two celled when mature, hyaline curved, and germinate readily within 12 hours in water. Cacti which I have infected with the spores show all signs of the disease. The cells around the infected point turn yellow, shrivel, and then a cork layer forms below the epidermis as if to shut out the fungus. In the cover I send several pieces of Mamillaria elephantoidens and a piece of M. Wennmaniana, also some sclerotia on potato.

No 2. This is a Naevispora which grows very abundantly on our millions in cultivation, and which I suspect of having caused the death of a good many this spring. The spores are not those of N. microspora as figured in Ann. Sci. Nat. 1830 pl. 6., a species with which it otherwise would agree.

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ST. LOUIS, MO., , 189 .

No 3. This is a Hymenomycetous fungus which I have grown on wood in a mushroom house. It is so deliquescent that it is almost impossible to get a good specimen. Under the benches it forms wide masses of mycelium, & these hang down in places like stalactites in a cave, covered with myriads of drops of a liquid. The hymenium is fleshy colored, often brown, and is formed of a number of irregular knobs or ~~about~~ blunt spines. I enclose a drawing of the hymenial layer. The spores are very numerous and brown. The mycelium branches frequently, has clamp cells ⟹ but these do not branch so it is not a Merulius.

No 4. This is a wood destroying Polyporus, growing on pine wood in the greenhouses and bringing about a destruction similar to Polyporus

Schweinitzii.

I take pleasure in sending you some separates of two papers which I have just published. Thanking you in advance for your courtesy

Very respectfully yours

Hermann von Schrenk.

P.S. I add another specimen marked 5 also a slide of the same. It is a fruiting organ (Sphaeria?) which formed on Mamillaria lophothele.