PRELIMINARY NOTE ON SPONGOSPORA SOLANI, BRUNCH.—The organism named *Spongospora Solani* by Brunchorst (1), which has become generally distributed in Great Britain and Ireland, causes, as the direct result of its parasitic habit, the formation of scars and scabs of a more or less cankerous nature, in potato tubers, according to the conditions and virulence of the attack. These injuries have been called by various names, i. e. Corky Scab, Powdery Scab, Canker, &c. At the same time the potatoes may be stimulated to produce abnormal outgrowths.

In spite of the interest aroused by Nawaschin's (2) paper on *Plasmodiophora*, *Spongospora* has remained practically where Brunchorst left it nearly a quarter of a century ago.

Brunchorst saw in this parasite an endophytic Myxomycete, possessing a plasmodium capable of entering and living within the cells of its host. This plasmodium at some period of its life-history becomes changed into a spongy, coherent mass of walled spores—a single mass or spore-ball in each cell.

Spongospora, during what may be safely regarded as its earliest stage in the host tissue, appears in the form of uninucleate myxamoebae, so that the penetration of living host-cells, where this occurs, is accomplished, not by plasmodia, but by uninucleate bodies. The method of penetration, however, is still unknown. Massee (3), in 1904, announced the discovery of myxamoebae, but supposed them to belong to some other organism: in a subsequent paper (4), however, these bodies are described as the myxamoebae of *Spongospora*. The myxamoebae increase in number and their nuclei divide by the method observed by Nawaschin for the amoebae in *Plasmodiophora*. Their extension into newly forming tissue is brought about owing to the fact that some of the myxamoebae enter each of the two daughter cells arising—by normal mitosis—from the originally infected tissue cell.

Towards the close of the vegetative phase of the parasite the separate amoeboid bodies become approximated and grouped about the nucleus of the host-cell, so that a condition obtains analogous more to that occurring in the pseudo-plasmodia of the organisms enumerated by Olive (5) in the section Acrasieae of the group Sorophoreae, Zopf, than to that of the true (or fusion) plasmodia of the Myxogasteres.

Nawaschin states that plasmodia are formed just prior to the generative phase in *Plasmodiophora*. It is impossible at present to state definitely whether this is the case or not in *Spongospora*. At all events the pseudoplasmodium (colony)—or perhaps the plasmodium—becomes converted into a single spongy spore-ball. This structure is not hollow as stated by Massee (6), and on this account cannot be formed in the way described by him. During the generative phase the nuclei divide karyokinetically, there are many striking nuclear appearances, some of which resemble the figures published by Harper (7) for *Fuligo* and by Jahn (8) for *Ceratomyxa*.

Encysted individuals or groups of individuals may be found which are similar to the microcysts of other Myxomycetes.

Structures comparable to the chromidia figured by Prowazek (9) for *Plasmodiophora* also occur during both phases of the life-history, but their character and mode of grouping vary during nuclear division.

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AN ARRANGEMENT FOR USING THE BLADES OF SAFETY RAZORS IN THE MICROTOME.—The safety razors now in general use have cheap blades of thin steel with a keen edge suitable for cutting sections. The price of a blade is so low that it can be discarded as soon as the edge becomes dull, and the labour of sharpening is thus dispensed with. The writer has used blades of this type for some years for cutting sections by hand, and has recently designed an arrangement for holding the blades in a rigid support, so that they can be used in the microtome.

A blade found very convenient for the purpose is that of the Gillette razor. It has two edges. The blade appears to be cut out of a sheet of steel with parallel surfaces, so that, apart from the actual cutting edge, the two surfaces of the blade are parallel; it is thus more easily held in a support than a blade with inclined surfaces. The arrangement for holding the blade consists of two blocks of steel (A) shown in surface view in Fig. 1 and in section in Fig. 2. Each block is wedge-shaped in section, and has two plane surfaces inclined to meet at an acute angle. The blocks are fastened together at each end by the screws (B) and thus form what is practically a razor blade made in two pieces, but without the actual cutting edge. The latter is supplied by inserting one of the above blades (C, Figs. 2 and 3) between the two blocks. The edge of the blade should project a little beyond the blunt edges of the two supporting blocks, and be parallel with them. The adjustment is made easier by the fact that the other side of the blade projects beyond the corresponding side of the supports. The actual amount of cutting edge that should project can easily be found by trial. The less the edge projects, the greater its rigidity; but it must project just far enough for the paraffin block to clear the edges of the steel supports. After the adjustment has been made the supports are screwed tightly together. To ensure the two supports having a uniform grip of the blade two steel washers (D) of the exact thickness of the blade are placed on the screws between the two blocks. Such washers are easily made from a discarded blade which has convenient holes in it.

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