

develop are abundant, the reproduction is an agamous one; in the fall, when insects become scarce, a sexual generation appears, which produces oospores not germinating before the following spring.

Mr. Giard believes that *Tarichium megaspermum*, the parasitic fungus of the caterpillar of *Agrotis segetum*, and first described by Dr. Cohn, could be used by farmers as a very important poison to destroy those obnoxious insects—the more as O. Brefeld has proved by conclusive experiments that the caterpillar of *Pieris brassicæ* is very easily infested by sprinkling with water in which spores of *E. sphaerosperma* (the parasite of this species) are put in. Therefore the mummified caterpillars filled with spores should be collected in winter for use the next spring against this species. (The same has been suggested as long ago as 1874 by Dr. John L. LeConte.) The *Entomophthora* seem to attack by preference the caterpillars of the double-brooded species, which pass the winter without transforming in the chrysalis state. Mr. Giard explains thus the casual rarity of some very common species of *Chelonia*. The hypothesis of O. Brefeld that *Tarichium megaspermum* of *Agrotis* could be perhaps only a different form of *Empusa muscæ* is rejected by Mr. Giard, he having discovered, as he submits, the *Tarichium* state of *Empusa muscæ*, which was not known before. The opinion that both forms of a fungus develop exclusively on the same animal, similarly as other parasitic insects, can, until it is proved by doubtless evidence, hardly be accepted. We know well that the different stages of entozoa develop in very different animals, and the presumption that fungi follow a similar course is at least probable.

There are published objections against my proposition to use the yeast fungus for destruction of insects. All are based upon the same fact, that Dr. Bail's views concerning the identity of some fungi are not accepted by Botanists. As the number of students of microscopical fungi is rather limited, and as I have never studied them, I used the excellent chance to rely upon the views of my savant colleague, Prof. Farlow, which he had kindly communicated to me. Therefore I stated as a fact that "Dr. Bail's views are now not accepted by prominent Botanists," and further that "this question is without any influence regarding my proposition." I believed it to be fair to state that actually Dr. Bail has discovered the yeast fungus to be poisonous to insects, and therefore I was obliged to quote the ways and the experiments which had led him to this discovery. As Dr. Bail had not suggested the use of the yeast for the destruction of insects—