

were entirely negative, a result which affords evidence that with the blow-fly at least transmission of such infection does not occur in this matter. Graham-Smith does not deny the possibility of this method in the case of the house-fly, but we may venture the opinion that in this case also the same negative result will probably be obtained. It appears as if non-sporing organisms such as the typhoid bacillus are unable to withstand the changes accompanying metamorphosis, and that they are killed off either by phagocytosis or by the growth of certain other bacteria. The frequent occurrence in recently emerged flies of bacilli suspiciously like *B. typhosus* and *B. enteritidis*, as noted by Graham-Smith, is probably not without significance in this connection, and will undoubtedly demand further attention.

Dr. Nicoll's report deals with the transmission of the eggs of parasitic worms through the agency of house-flies. This is a matter which has given rise to much conjecture, but, as he remarks, very few actual observations have been recorded. The only investigations of any importance were made in Italy nearly thirty years ago by Grassi, and twenty-three years later by Calandruccio. Their observations left little doubt that the fly was an extremely probable agent in the dispersal of certain worms—notably *Hymenolepis nana* and *Trichocephalus dispar*. They also showed that the eggs were carried in the intestine of the fly and deposited in its excrement. Dr. Nicoll's work yields ample confirmation of these conclusions, and at the same time brings out several new points of general importance. One of the most interesting facts which both he and Graham-Smith remark upon is the fly's habit of cleansing itself. This apparently hygienic procedure might at first commend itself, but, although it serves to get rid of gross contamination, it results in a renewed infection of the legs and body from the proboscis. Nicoll sums up the general facts which are known in regard to the life-history and mode of transmission of parasitic worms and the characters of their eggs. The size of the latter appears to be the most important factor in their relation to flies, for the ordinary house-fly is unable to swallow particles exceeding 50 microns in diameter. This fixes a limit to the size of egg that can be ingested, and, as many parasites produce eggs exceeding this size in one or both diameters, they must be much less likely to be disseminated by flies. The experiments were conducted chiefly with the tapeworms, *Hymenolepis diminuta* and *Taenia serrata*. The former produces eggs exceeding the limit; the later much under. It was found that the eggs of *Taenia serrata* could be ingested in hundreds, that they might remain in the intestine of the fly for two or three days without being destroyed, and that, when deposited, they retained their infectivity. It was further noted that faeces containing tapeworm segments afforded flies the